

ARIN III Members Meeting - Atlanta, Georgia - April 13, 1999

Call to Order

The meeting was called to order by Kim Hubbard at approximately 9:20 a.m. Other Board of Trustees members present included John Curran (afternoon session) and Donald Telage. Advisory Council members present included Jeremy Porter, Bill Darte, Alec Peterson, David Whipple, Steve Corbato, Cathy Wittbrodt, and Hank Kilmer. Approximately 55 members were in attendance. Presentation materials used during the meeting will be posted on ARIN's website for reference.

Adoption of the Agenda

After welcoming everyone, Kim asked for a review of the agenda and called for suggested additions; there being none, the agenda was adopted.

Treasurer's Report

Kim introduced Bob Stratton, ARIN Business Manager, to present ARIN financial data for fiscal year 1999 to date (July 1 - April 6). Bob first explained that ARIN uses a financial waterfall schedule in determining its revenue, that is, registration revenue on any given month is prorated over a 12-month period and thus would be recognized as 1/12th income for each month. Bob provided a breakout of engineering, registration, member and administration expenses, and concluded the presentation with figures for IP registrations by category.

ARIN Operational Summary

Nate Davis, ARIN Director of Engineering, was introduced to present an update of engineering department activities. First, Nate provided a rundown of the changes in staffing, including his recent arrival with the company, a new system administrator and business analyst, as well as plans to hire two additional engineers.

Next, an overview of the key projects under development was presented, including IPv6 progress, integration of WHOIS, fine tuning of software and supporting tools, and SWIP development. For Y2K readiness, the production system is expected to be ready by end of June 1999. Plans are in the works to install redundant servers at RIPE and APNIC following completion of the Y2K effort. One member noted that there may be privacy issues involved with installing redundant servers that need to be looked into because of European data transfer laws.

ARIN's new website is nearing completion. Kim asked members to provide suggestions for improving the website.

A redesign of the billing system and Registration Services Group (RSG) system is underway to improve the interface between IP registration software and accounting system software. Currently, several systems must be accessed to process data, which is cumbersome for the staff and labor intensive. The system will be migrated from Ingres to Oracle using QuickBooks accounting software.

Other talking points included the startup of ARIN's routing registry and infrastructure improvements underway within ARIN. An agreement among ARIN members needs to be ascertained regarding serviceability, where members can access our website on a 24 hours/day, 7 days/week basis except during an acceptable maintenance window. Nate concluded the presentation with WHOIS statistics.

ARIN Statistics

ARIN Statistics

Next, Michael O'Neill, ARIN Sr. IP Analyst, was introduced to provide Registration Services Group statistics. Utilization of ARIN-allocated /8 address space was presented, followed by figures for /24s and ASNs issued per month. One slide indicated a low rate of approval of end-user requests -- Kim explained this to be due to a high number of end-users being referred to their upstream provider. It is expected that the numbers will change based on the policy change from a /19 minimum to /20.

Figures displaying ISP allocations issued showed a general increase in allocations. Kim explained that it was due to the multi-homed policy and a lowering of the allocation policy from /19 to /20. Consequently, there have been many more requests made by small ISPs. On a month-by-month basis, ARIN is now tracking the number of ISP requests that are rejected. The reason given for the current number of rejections was that organizations did not meet criteria for the /20 minimum requirement. ARIN allows a period of time for requesting organizations to provide justification information. Until the requestor provides that information, the request is not considered to be approved or rejected but is held in a "pending" status.

RSG statistics for 1998 and 1999 to date were presented, which included /24s issued, SWIP templates processed, ASNs processed, and other data.

ARIN is currently applying only MAIL-FROM security to SWIPS. The majority of SWIP templates are processed automatically -- others (deletes) are processed manually because the template was not filled out properly. Approximately 70% of SWIP templates manually processed are deletes.

Members discussed the 18-month renumbering requirement. Kim reiterated the policy that no additional space can be given if not renumbered within 18 months and that it is up to the individual organizations to find a way to abide by that rule.

Working Group Summary

Kim announced that the Advisory Council will be meeting the day following the Members' meeting to hear suggestions and input from the Members. It was mentioned that the ARIN policy for Working Groups (WGs) can be made available for review but that it has not been formally adopted by the AC. Considering that WGs may involve operational as well as policy issues, should the working groups be open to nonmembers? Should AC members chair the WGs? These issues will be discussed at the AC meeting.

How shall WGs be created, by a majority of members? Can recommendations be made online or only while attending a WG meeting? It was generally expressed that there needs to be more discussion and participation online via mailing lists. Also of interest would be the creation of meeting minutes for each WG. The suggestions were made that WGs should not last longer than 9 months, should have grass roots participation, and should not be created for every single allocation policy issue. It was announced that a more detailed WG document will be created.

Database Implementation Working Group

Jeremy Porter was introduced to report on the Database Implementation WG that convened the day before. The group was formed to discuss problems with existing DB systems and how to address them. Topics and resolutions included:

- What tools are needed for accessing system
- Realtime access is not needed if DB is kept updated
- As a priority, email should use web-based encryption, whereas adding PGP encryption is a lesser priority
- A validation tool should be added to validate SWIP requests, which would eliminate manual errors
- The use of XML/digital certificates will be reviewed at a later time
- A new schema for new DB server should be developed, including: conversion to Oracle to supercede old InterNIC system, migrating to new DB schema, and adding an access control structure which would allow for DOC

system, migrating to new DB schema, and adding an access control structure which would allow for POC modifications and other DB mods in a more secure manner.

- RWHOIS is currently suboptimal for implementation. NSI's work (and possibly others) on RWHOIS is to be released soon. Operational issues will need to be resolved to coordinate globally with ARIN and others, and coordination between NSI and ARIN needs to occur.
- TheWG discussed a request that universal handles be used, but no resolution was reached. However, the group developed a formal definition of acceptable characters: upper case alpha characters and dashes only.

The WG will set up a universal handle mailing list and a description of the features of the DB will be posted on the members' mailing list. Jeremy suggested that our relationship with NSI is very important for the implementation of universal handles.

IP Allocations Policies Working Group

Sandra Reimer, standing in for Randy Bush, IP Allocations Policies WG temporary chair, provided an overview of the group's discussion. The first topic addressed the increasing filtering complexity as a result of ARIN changing its policy for a minimum allocation from a /19 to /20 while RIPE and APNIC did not, and how this applies to ISPs that filter specific routes based on prefix length. Steve Corbato described the AC's decision process in recommending the policy change.

The WG rejected the use of the term "leasing" when referring to IP number registration, and suggested to continue the use of the terms "subscription" and "stewardship." The WG discussed whether ARIN should start summarily approving transfers of IP registrations so that registration information could be updated while ARIN reviews submitted utilization data, but decided to retain the current transfer policy. Kim announced that the ARIN transfer template will soon be available on ARIN's website.

The group discussed situations in large private networks, where leaf nodes perceive the need for globally unique, but nonroutable IP numbers. Individuals offered various strategies for using small portions of the leaf-node organization's prior allocations, or using a private address registry, to be coordinated by the service provider, to track use of the RFC 1918 address space by the various organizations that constitute the particular private network.

The group also discussed the new draft IPv6 allocation guidelines document as it relates to criteria for direct RIR allocations, and the initial IPv6 routing table size. The WG considered a proposed plan for sub-TLA (/29) allocations, including RIRs using a slow start method, and a set of bootstrap criteria for the initial phase of the allocation. ARIN will post the draft policy document and solicits members' feedback on IPv6 policies. (A copy of the draft is now available for member review at www.arin.net.)

RIR Updates - RIPE

Kim introduced Mirjam Kuhne, RIPE NCC Head External Services, to provide an update on RIPE activities. Figures for new members added in 1998 reveal that many countries are represented among the group. Small members are growing and becoming medium members, which accounts, in part, for the increased total membership figures for RIPE.

RIPE has requested a new block of space (212/8) from IANA. Members requesting space are reserved a /19 but are not automatically issued the full /19. Justification must be provided and approved. It was concluded from audits conducted that the /19 assignment window was too large, therefore, RIPE lowered the minimum to /21 due to its concern for unassigned space. If documentation supplied by an organization reveals that there are numerous unassignments, its allocation may be lowered.

When asked whether ARIN WGs will be coordinating with RIPE WGs, the response was in the affirmative. Mirjam referred ARIN members to visit the RIPE website.

Figures for data base queries, updates, and object types were presented, as was the total number of RIPE meeting attendees for 1998, shown by country.

RIPE is running a routing registry and is currently transitioning to RPSL. They have changed verification methods for small static assignments and have changed the maximum allocation size from a /16 to where now decisions are made on a per-requestor basis. Progress is being made on redundant DB servers. Mirjam talked about the staff exchange program that RIPE has with APNIC and explained RIPE's policy regarding membership vs address allocation. RIPE's membership fee is based on the size of allocation requested. Organizations wanting address space must first become a member, then space is allocated to them. Mirjam went on to explain that RIPE does not issue addresses to end-users, and that RIPE currently has 56 staff employees.

Board of Trustees Summary

John Curran came forward to provide an overview of the Board of Trustees meeting held 2 days earlier and to report that the Board was successful in making progress on a number of issues, which he touched on briefly.

On the topic of IPv6, fees need to be adequate at the very start because allocations are very large and a long time will lapse between IP requests. If there were no fees or organizational requirements, fledgling organizations could receive space and squat on it, grossly underutilizing the space.

John characterized ARIN's approach to Y2K readiness as one of compliance rather than migration.

Regarding discussions about ARIN's interaction between the ASO and ICANN, the Board believes that we will need a contract with ICANN and is discussing this matter with the other RIRs. It is important to ensure that ARIN's interaction with ICANN is one of negotiation, so that the ICANN is not in a position to hand down decisions to the RIRs. ICANN contract proposals are subject to public review.

A draft budget, which provided for three additional staff employees, was submitted and approved by the Board.

Advisory Council Summary

Next, Alec Peterson gave a summary of the issues under consideration with the AC and explained that the AC will be studying ARIN statistics at their meeting the following day.

On the topic of micro-allocations, Alec explained that these smaller allocations entail infrastructural needs of the Internet. They require little IP space, but have a high profile, and require a high bandwidth. It was recommended and agreed that this subject be placed on the AC agenda for their meeting, with the following to be discussed:

- The prospect of providing for an "exceptional" basis in allocation guidelines
- How can we defend micro-assignments, which are subjective, when they are exceptions to our more standard guidelines? These kinds of decisions are currently made by ARIN staff.

An organization may qualify for a micro-assignment when it provides a service integral to the Internet, and doesn't meet the requirements for a /20. Alec went on to explain that the AC has been looking for a concrete process for micro-assignments, but hasn't been able to come up with one. Much discussion ensued about not being able to distinguish between organizations for criticality to the Internet. Examples of organizations with critical infrastructures that might receive micro-assignments include:

- WHOIS servers
- Top-level DNS servers
- New root name servers
- Exchange points

ARIN has not yet allocated space for a critical infrastructure yet, but it expects to do so in the future. The minimum must be a /24. Alec indicated that information concerning micro-assignments should be posted on a mailing list and

must be a /24. Ariel indicated that information concerning micro-assignments should be posted on a mailing list and that the AC will develop a list of critical infrastructures. The AC will also discuss opening up ARIN's membership.

On another topic, one member requested that the instructions that accompany ARIN's templates be revised or rewritten.

IPv6 Allocation

It was reported that the IPng Working Group has made suggestions to the IPv6 allocation guidelines. APNIC gathered the suggestions, and, together with input from ARIN and RIPE, drafted a new version of the document incorporating those suggestions.

Michael O'Neill returned to the podium to provide an overview of the IPv6 policy document. He introduced the levels of organizational and addressing hierarchies, and IPv6 site topology and prefix boundary requirements. RIRs will receive specific blocks of space for use in making allocations to TLA registries.

Under initial allocation policies, organizations can petition for additional space from the reserved sub-TLA space. It was noted that the time frame wherein a sub-TLA must be used is not addressed in RFC documents.

Michael described the bootstrap criteria and indicated that general and bootstrap requirements can both work at the same time. Members generally agreed that under the bootstrap requirement, requesting organizations must demonstrate production IPv6 within a 12-month time frame and that an organization must be an IPv4 provider to 30-40 sites that meet /48 IPv6 criteria.

Other initial allocation policies were presented. Concern was expressed that there would be ramifications for not having an approved IPv6 process/policy. A general discussion followed that touched on various aspects of IPv6 policy authority. The IANA currently functions under ISI, but what about the future? If ARIN members approve an IPv6 policy guideline, how should we proceed? Should RIRs collectively approve the policy and implement it? Is there validity in having IANA, who has a relationship with the Federal government, approve it or should we get an endorsement from the new ICANN process?

It was suggested that creation of the ASO and having a relationship with the ICANN is 6 months away. Should we wait for this relationship to develop? Currently, ICANN has no responsibility. It was mentioned that the ASO could provide the right format for formalizing IPv6 policy. Brought to the discussion was the question of liability. Without IANA or ICANN involvement, where would liability fall? The members agreed that we should proceed with the RIRs finalizing IPv6 policy, then work on determining how to implement it.

ICANN/Address Supporting Organization (ASO)

Kim provided a recap of the Monday ASO meeting. Two options were outlined: Option 1 provides for RIR members to comprise the ASO membership with three representatives from each RIR to form the AC; and Option 2 provides for two representatives from each RIR to serve on the AC along with six constituencies.

Foremost, the RIRs must ensure that the ASO is concerned only with global issues and does not interfere with local policies. The consensus from the ASO meeting was in support of Option 1, the proposal for which will be written and made available for review. Kim requested members and their organizations to speak up and voice their support for

proposals promoted by ARIN. A suggestion was made and generally accepted to place the ASO proposal on ARIN's website along with a place for members to sign their name for endorsement. This will help track the interests of the members.

Kim mentioned that the perception at the ASO meeting was that ARIN membership is too closed and suggested that this area warrants further consideration. One option would be to open the policy portion of the meetings to make

them available to the public and charge a small attendance fee to participants who are not members. Policy meetings and member meetings would be held once a year, but should policy and operational meetings be combined during the same time frame?

The suggestion was made that all ISPs receiving address space from ARIN should become members. Others not receiving address space could then pay a fee to become a member. It was explained that at RIPE NCC, memberships are extended to all organizations that receive address space, while its affiliate (RIPE) in addition has an open forum for input from those who are not members.

Currently, ARIN has ~500 ISPs holding subscriptions. If membership became automatic with the allocation of address space, should the membership fee be lowered? It was suggested that if membership fees were bundled with registration fees, they might be lowered if financially feasible. These issues will be discussed at AC and Board meetings.

Generally, the members supported the idea of seeing the membership increase, at least by some margin. This topic will be discussed at the AC meeting and will be presented to the Board. A consensus among the group showed support for posting all minutes on the website and making them available to the public, but ARIN should ensure that sensitive information, such as references to individuals or quotes, be left out. Budget data should also be excluded.

Schedule Next Meeting

The next ARIN members' meeting is planned for October 1999 in Denver, CO.

Adjournment

Kim adjourned the meeting at 4:00 p.m.