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Review of the ICANN Address Supporting Organization (ASO)

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Founded in 1994, ITEMS International is a consultancy firm specialized in strategic consulting in the areas of telecommunications and the Internet. The company's headquarters are in Paris. It has offices in Rome, Algiers and Japan, and representatives in Belgium, Germany, Spain, Sweden and the United States. ITEMS also counts on an international network of correspondents in North America, Latin America, Asia Pacific and Africa.

ITEMS International has extensive experience assisting public authorities and companies develop their ICT strategies. The company's main areas of expertise are market analysis, market opportunities, management consulting, strategic audits, due diligence analysis, product and service analyses, business plans and ICT authorities' development strategies. In 2010 ITEMS International conducted the organizational review of the ICANN Country Code Names Supporting Organization (ccNSO).

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Executive Summary

The present Review of the ICANN Address Supporting Organization (ASO) was conducted by ITEMS International over a period of six months, between July and December 2011. It is the first independent review of the ASO as called for by ICANN Bylaws and the ASO Memorandum of Understanding (ASO MoU).

The report is divided into four main sections.

Section 1: Background information on the origins and function of the ASO and description of the methodology followed during the review process.

This review of the ASO is the last in the cycle of independent reviews of all ICANN bodies that was started in 2005. At the end of this review process, a new five-year cycle will commence.

The ASO review differs somewhat from the reviews of the other ICANN Supporting Organizations and Advisory Committees in that it was commissioned, according to the terms of the ASO MoU, by the NRO, not by ICANN Board's Structural Improvements Committee (SIC).

A three-part methodology was used throughout the review process: (i) extended face-to-face interviews with over 100 selected individuals within ICANN's and the RIR's communities, (ii) an online survey and (iii) Reviewers attended an RIR meeting in each one of the five RIR regions and two ICANN meetings and carried out an independent analysis based on the ASO's constituent documents.

This section includes a description of the structure of the ASO highlighting certain differences with the two other ICANN Supporting Organizations, the ccNSO and the GNSO. What sets the ASO apart from the two other Supporting Organizations is that it is not an 'organization' as such within the ICANN structure, in the way that the ccNSO and the GNSO clearly are. Instead, ICANN Bylaws refer to the ASO as an 'entity', and it is presented as a set of functions to be fulfilled by the NRO, an organization associated with ICANN without being a fully-fledged part of it. Other differences include the fact that the ASO is not specifically required to coordinate with the other bodies that make up the ICANN system whereas the ccNSO and ALAC are explicitly called to do so by ICANN Bylaws.

Section 2 addresses the first eight Evaluative Questions as listed in the terms of reference of Review RFP. Each evaluative question is addressed in the same manner with three subsections: Baseline Assessment; Review Findings; and Analysis and Conclusions. The table below summarizes Review findings and analysis.

Table 1 The purpose of the ASO, its effectiveness and relevance. Summary of review findings

#	Evaluative Question
1	**Has the ASO been effective in achieving its key objectives, as defined in the ASO MoU?**
	The ASO MoU does not explicitly define the ASO's key objectives. As a result reviewers undertook to identify the ASO's five *implicitly* defined key objectives. These are based on the five key responsibilities of the ASO AC as described in the ASO MoU, with the only difference that each is described in terms of the procedures and corresponding actions. The five objectives are considered separately in the report. Reviewers' overall impression is that the ASO has successfully achieved its key objectives. It has defined all the necessary procedures and carried out all actions in relation to these in a timely, efficient and well-documented manner. The only observed shortcoming of the ASO is that there are a number of minor procedures that still need to be defined.
2	**Are there any internal or external elements that have prevented the full achievement of ASO's objectives? If yes, what are they?**
	Reviewers sought to determine if the ASO had, in any way, been prevented from achieving it objectives. It was concluded, however, that the ASO has functioned in an effective manner according to its mandate, unhindered by any internal or external blockages.
3	**What general or specific measures can be imagined to enhance the effectiveness of the ASO?**
	Reviewers do not make any recommendations regarding general measures to enhance the effectiveness of the ASO, although a number of specific measures are suggested regarding enhancements to the Global Policy Development Process (GPDP), the presence of the ASO during ICANN Meetings, and the ASO website. The measures proposed are detailed in the Recommendations listed below.
4	**Overall, were the initiatives carried out by the ASO since its establishment consistent with its mandate as defined in the ASO MoU?**
	Reviewers' assessment is that the actions of the ASO have been been conducted in a manner that is entirely consistent with its mandate as defined in the ASO MoU.
5	**What are the ASO members' understandings of the mandate of the ASO?**
	The ASO's only members are the members of the ASO Address Council. Reviewers interviewed almost all of Address Council members and concluded that they have a thorough understanding of the mandate of the ASO, without which the ASO would certainly not have been as effective as it has been in fulfilling the ASO functions for which it has responsibility.
6	**What are the understandings of other Supporting Organizations and Advisory Committees of the mandate of the ASO?**
	Reviewers' overall conclusion is that the other SOs and ACs generally have a limited

	understanding of the mandate of the ASO. To this extent, the following actions seem to be needed: •The mandate of the ASO is well understood within the ASO/NRO but not so well within the wider ICANN community. For the benefit of the wider community it would be useful to have a clearer definition of the mandate of the ASO; and •ICANN and the ASO should be more proactive in ensuring that the other ICANN SOs and ACs have a better understanding of the ASO mandate. In this regard an ASO FAQ (as recommended) should help to improve awareness.
7	**Does the ASO have a continuing purpose in the ICANN structure?**
	Reviewers' overall conclusion is that the ASO undeniably has a continuing purpose in the ICANN ecosystem. Notwithstanding, a number of clarifications to the ASO MoU seem to be needed. In particular, the ASO MoU should clearly spell out the purposes of the ASO rather than the purposes for the establishment of the ASO MoU. These clarifications should be undertaken together with other clarifications outlined in various sections of this review.
8	**Does the rationale for the ASO as spelled out in the ASO MoU need to be revised, and in which sense?**
	Reviewers' overall conclusion is that there is no obvious need to revise the rationale supporting the current structure of the ASO. However, it may be helpful to write a documented history of the respective rationales of ICANN and the NRO.

Section 3 addresses the four remaining Evaluative Questions as listed in the terms of reference of Review RFP. The table below summarizes Review findings and analysis.

Table 2 Functioning of the ASO. Summary of review findings

#	Evaluative Question
9	**Does the ASO operate in an accountable and transparent way? Are there any changes to the ASO's ways of operating that might enhance its accountability and transparency?**
	Reviewers' overall conclusion is that the ASO operates in fully accountable and transparent way towards to each of its four audiences: the signatories of the ASO MOU, the addressing community, the at large ICANN community and the at large Internet community. Notwithstanding, the Review Team considers that the following four measures should be adopted with a view to enhancing accountability and transparency: •At ICANN meetings the ASO Report should systematically be presented by the Chair of the Address Council; •Moreover, it would be better if an NRO Report is presented in parallel by the NRO EC; •The recommended FAQ page on the ASO website, should explain how the ASO functions in a way which is accountable and transparent towards the at large communities; and •The ASO, through the NRO EC, should respond as soon as possible to the ICANN Board request regarding the ATRT This response should emphasize the ASO's strong commitment to the principles and views supported by this report.

10	**Are the ASO's internal working mechanisms suitable and sufficient to guide all the aspects of its present work?**
	Reviewers' overall conclusion is that the ASO's internal mechanisms are suitable and sufficient to guide all aspects of its present work.
11	**Has the ASO had the resources necessary to accomplish its tasks?**
	Overall conclusion of the Reviewers is that definitively the ASO has received from the NRO the resources needed to accomplish its tasks.
12	**Are there regular and suitable communication and collaboration mechanisms in place between the ASO and other ICANN Supporting Organizations and Advisory Committees?**
	Reviewers' overall conclusion is that there are currently no mechanisms in place to ensure regular and productive interaction between the Address Council and the other SOs and ACs. Reviewers consider that it is in the ASO's interests, to maintain regular contacts with the other ICANN SOs and ACs. One of the most obvious ways this can be done is through the organization of meetings with the other SOs and ACs during ICANN meetings. Specific measures at this respect will be formulated in common with the recommendations regarding the enhancement of the presence of the ASO in ICANN Meetings.

Section 4 contains a detailed recap of all the recommendations proposed in the Review. These recommendations are grouped into eight categories as summarized in the table below.

I) Recommendations regarding clarifications and updates to the ASO MoU

Recommendation 1: Clarify the purpose, mandate and objectives of the ASO and distinguish between the ASO functions to be undertaken by the Address Council and those to be undertaken by the NRO Executive Council

Recommendation 2: Update Attachment A of the ASO MoU to ensure that it is consistent with the description of the Global Policy Development Process (GPDP) in the Address Council Operating Procedures (ASO AC OP) document.

II) Recommendations regarding clarifications and update to the ASO MoU

Recommendation 3: The signatories of the ASO MoU should mutually agree on a procedure on how the Address Council should deal with a global policy proposal that has been objected or rejected by the ICANN Board.

Recommendation 4: The signatories of the ASO MoU should mutually agree on a mediation procedure should the ICANN Board reject a resubmitted global policy proposal for the second time.

Recommendation 5: The signatories of the ASO MoU should agree on a procedure through which the recognition of the ability of the ICANN Board to request the Address Council to initiate a policy development process through the RIRs would be provisioned.

Recommendation 6: Update Section 6.1.1 of the ASO AC OP concerning the Address Council Review Segment to reflect the fact that the ICANN Board is now mandated to request advice from the Address Council on the merits of a forwarded global policy.

Recommendation 7: Section 6 of the ASO AC OP should contain a complete description of the GPDP, including Attachment A of the ASO MoU and all the associated procedures requested by the ASO MoU.

III) Recommendations regarding the presence of the ASO during ICANN meetings

Recommendation 8: The in-person meetings of the Address Council held during ICANN meetings should be open to all registered participants, at least for most of the agenda.

Recommendation 9: During ICANN meetings, the ASO should continue to organize, on an experimental basis, short joint sessions with interested SOs, ACs and GNSO Constituencies.

Recommendation 10: The agenda for NRO/ASO workshops at ICANN meetings should be enriched, avoiding presentations that are already available in the NRO, ASO and RIR websites.

Recommendation 11: The presentation of the ASO Report during ICANN meetings should always be delivered by the Chair of the Address Council.

IV) Recommendations regarding enhancements to the ASO website

Recommendation 12: The ASO website as a whole, and especially the homepage, should clearly reflect the fact that the ASO is an ICANN SO whose functions are fulfilled by the NRO.

Recommendation 13: A detailed FAQ of the ASO should be added to the ASO website.

Recommendation 14: A fully researched, documented and referenced history of the ASO should replace the existing history page of the ASO website.

Recommendation 15: The ASO should translate the ASO's constituent documents into the main languages in use within ICANN and the addressing communities.

Recommendation 16: The ASO website should be regularly checked for technical errors, broken links, etc. For this Reviewers recommend using the three W3C website validators.

V) Recommendations regarding the enhancement of the ASO Procedures

Recommendation 17: The procedures of the ASO should be labeled 'ASO Procedures', not ASO AC Procedures.

Recommendation 18: A procedure for the appointment of NomCom members should be added to the ASO Procedures.

Recommendation 19: A procedure for the appointment of members of the Affirmation of Commitments (AoC) Review Teams and any other ICANN bodies should be added to the ASO Procedures.

Recommendation 20: A procedure for advising the ICANN Board on the recognition of new RIRs should be added to the ASO Procedures.

VI) Recommendations to the ICANN Board

Recommendation 21: The ICANN Board should be urged to request advice from the ASO on policy issues regarding IP number resources other than global addressing policies.

Recommendation 22: The ICANN Board should check if its Procedures for the Ratification of Global Addressing Policies are in conformity with the ATRT Report's recommendations in this regard.

VII) Recommendations to the NRO Executive Council

Recommendation 23: The NRO Executive Council should help to empower the Policy Proposal Facilitating Teams (PPFT) in their facilitation role.

Recommendation 24: The NRO Executive Council should respond to the ICANN Board's request to react to the ARTR Report as soon as possible.

VIII) Joint Recommendations to the ICANN Board and the NRO Executive Council

Recommendation 25: The ICANN Board and the NRO Executive Council should agree on the content of a FAQ of the ASO to be posted on the ASO website.

Recommendation 26: The ICANN Board and the NRO Executive Council are encouraged to agree on the content of a documented History of the ASO to be posted in the ASO website.

1 Introduction

1.1 Preamble

The Address Supporting Organization (ASO) came into existence in 1999 as one of the three Supporting Organizations of the Internet Corporation for Assigned Names and Numbers (ICANN). Its existence was formalized by a first Memorandum of Understanding (ASO MoU), signed in October 1999, between ICANN and the three Regional Internet Registries (RIRs) in existence at the time, the Asia Pacific Network Information Centre (APNIC), the Réseaux IP Européens (RIPE) and the American Registry for Internet Numbers (ARIN). Following the recognition of the Latin America and Caribbean Network Information Centre (LACNIC), in 2002, and the creation, in 2003, of the Number Resource Organization (NRO), a coordinating body for the RIRs, the current version of the ASO MoU was signed on October 2004. This second MoU is the main constituent document of the ASO which is the object of the present review.

1.2 Context of the ASO Review

The ASO Review is formally an ICANN review called for by the ICANN Bylaws. Article IV, section 4 of the Bylaws states that "*the ICANN Board shall cause a periodic review of the performance and operation of each Supporting Organization, each Supporting Organization Council, each Advisory Committee (other than the Governmental Advisory Committee), and the Nominating Committee by an entity or entities independent of the Organization under review".*

Regarding the review mechanism to be followed, ICANN Bylaws state that *"the goal of the reviews, to be undertaken pursuant to such criteria and standards as the Board direct, shall be to determine (i) whether that organization has a continuing purpose in the ICANN structure, and (ii) if so, whether any change in structure or operations is desirable to improve its effectiveness"*.

According to the charter of the ICANN Board's Structural Improvements Committee (SIC), set up in 2009 to oversee ICANN's ongoing organizational review process, the SIC has the following responsibilities[1]:

- Oversee ICANN's organizational review process through the engagement of one or more consulting firms to conduct independent reviews, including mainly the drafting of the respective RFP;
- Oversee the work, in conjunction with ICANN Staff, of the independent consulting firm engaged, including the quality and content of the work product and pursuing all necessary follow-up;
- Create and populate Working Groups for each of the Reviews, if and when deemed necessary, and
- Coordinate the work of the Working Groups, and evaluate the recommendations coming from the review process, in particular, but not limited to, pointing out inconsistencies in the recommendations presented for different bodies.

[1] Charter of the ICANN Board Structural Improvement Committee: http://www.icann.org/en/committees/improvements/charter.htm

An exception to the above framework is specified in the case of the ICANN Government Advisory Committee (GAC) which "*shall provide its own review mechanisms"* but no special mention is made in the Bylaws of the review mechanism to be adopted in the case of the ASO. This is made clear, however, in Section 8 of the ASO MoU which states that *"with reference to the provisions of Article IV, Section 4 of the ICANN Bylaws, the NRO shall provide its own review mechanisms"*.

Accordingly, the NRO's terms of reference for this review (ASO Review RFP) state that *this "review is designed to determine: (i) an assessment of the performance of the ASO in accordance with its constituent documents; and (ii) whether any change in its structure or operations is desirable to improve its effectiveness (including the question of whether the ASO has a continuing purpose within ICANN)".*

The NRO's review mechanism differs from the SIC mechanism in at least the following respects:

- The RFP was drafted by the NRO, not the SIC;
- In addition to ICANN's general goals for the reviews of its SOs and ACs a specific requirement was added to assess the performance of the ASO, in accordance with its constituent documents;
- The SIC did not create a Working Group for the ASO Review; and
- The ASO Review process was overseen by the NRO.

Finally, it seems important to clarify that the present review is not to be confused with the periodic review of the ASO MoU, called for in Article 9 of the ASO MoU which states that the *"MoU signatories will periodically review the results and consequences of their cooperation under the MoU. When appropriate, the signatories will consider the need for improvements in the MoU and make suitable proposals for modifying and updating the arrangements and scope of the MoU."*

1.3 Methodology

The present review was conducted by ITEMS International over a six-month period, between June and December 2011. During this period reviewers attended a meeting of each of the five Regional Internet Registries (RIRs) and the 41st and 42nd ICANN meetings in Singapore and Dakar.

During the review, three complementary and parallel approaches were adopted:

- Extended face-to-face interviews with selected individuals within ICANN, with a direct or indirect connection with the operations of the ASO, members of the five RIR communities and members of other constituencies;
- Running of an online survey circulated widely within ICANN and the wider internet addressing community;
- Fact-gathering and evaluation by the review team.

1.3.1 Interview Process

Numerous face-to-face interviews and a number of video and phone interviews were conducted on an on-going basis throughout the course of the review. Reviewers conducted 110 interviews with targeted individuals whose names are listed in Annex 5.1.

Targeted interviewees were conducted with:

- The CEOs of the five RIRs;
- Other RIR Staff with a connection with operations of the ASO;
- RIR Board members;
- RIR's Policy Chairs and Advisers;
- ASO Address Council members;
- Senior and other relevant ICANN staff;
- ICANN Board Directors and Liaisons;
- Relevant representatives of other ICANN SOs and ACs;
- ISP Constituency members; and
- Other stakeholders in the wider address space and Internet community.

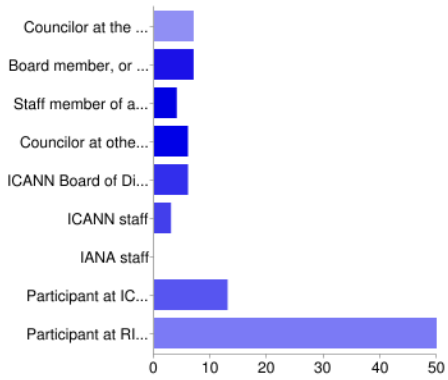
1.3.2 Online survey

An online survey was targeted at members of the ASO Address Council, RIR Policy Chairs and Advisers, ICANN Board Directors and Liaisons, RIR Boards and staff members, ICANN and IANA staff, and the attendees of the RIRs and ICANN meetings.

There were 96 responses to the survey, four short of our target but a sufficiently large response rate to allow reviewers to discern clear trends of opinion.

A breakdown of responses per respondent category shows that a majority were submitted by RIR meeting participants (52%), followed by attendees to ICANN meetings (14%) and a more or less even distribution of responses from the other respondent categories groups.

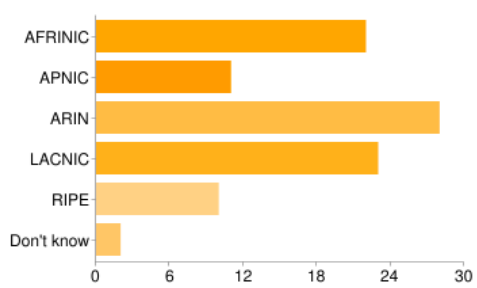
Figure 1: ASO Survey: distribution of responses per affiliation



Councilor at the Address Council / Numbers Council	7	7%
Board member, or member of the Executive Council or Advisory Council of an RIR	7	7%
Staff member of a Regional Internet Registry (RIR)	4	4%
Councilor at other ICANN SO or AC	6	6%
ICANN Board of Directors	6	6%
ICANN staff	3	3%
IANA staff	0	0%
Participant at ICANN meeting	13	14%
Participant at RIR meeting	50	52%

The geographic distribution of responses shows a preponderance of responses from the North America region. However, in proportion of the number of addresses held in each region, AfriNIC has the highest response rate.

Figure 2: ASO Survey: geographic distribution of responses



AFRINIC	22	23%
APNIC	11	11%
ARIN	28	29%
LACNIC	23	24%
RIPE	10	10%
Don't know	2	2%

The results of the survey are presented in two ways in the report, firstly in a manner which shows the 'global' view, including all respondent categories and secondly in a manner which distinguishes respondent categories.

1.3.3 Relevant documentation used in the review

Documentation used by the Review Team is listed in Annex 5.3.

1.3.4 Confidentiality of reporting

The Chatham House Rule is observed throughout the report[2]. In this way, comments made during interviews or in the open comment section of the online survey are not attributed.

1.4 Background of the Address Supporting Organization

1.4.1 The ASO within the ICANN framework

Article 1, Section 1 of the ICANN Bylaws state that ICANN's mission is to coordinate, at the overall level, the global Internet's systems of unique identifiers and, in particular, to ensure the stable and secure operation of the Internet's unique identifier systems. In particular ICANN:

1 Coordinates the allocation and assignment of the three sets of unique identifiers for the Internet, which are:

   a. Domain names (forming a system referred to as "DNS");

   b. Internet protocol ("IP") addresses and autonomous system ("AS") numbers; and

   c. Protocol port and parameter numbers.

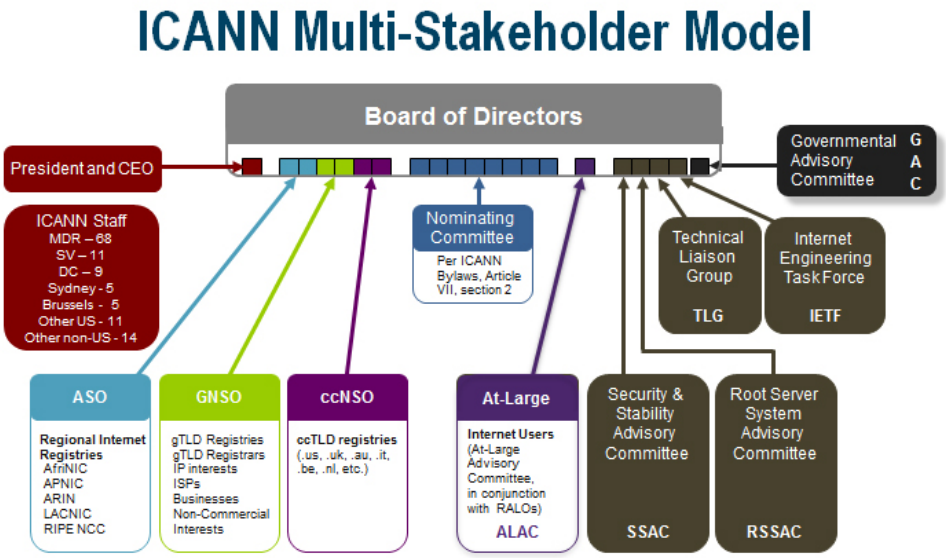
2 Coordinates the operation and evolution of the DNS root name server system; and

3 Coordinates policy development reasonably and appropriately related to these technical functions.

2 http://www.chathamhouse.org/about-us/chathamhouserule

ICANN's organizational structure is presented as follows.

Figure 3: ICANN organizational structure



Source: ICANN

Article VIII, Section 1 of the ICANN Bylaws describes the role of the Address Supporting Organization (ASO) as follows:

- *The ASO shall be the entity established by the Memorandum of Understanding entered on 21 October 2004 between ICANN and the Number Resource Organization (NRO), an organization of the existing regional Internet registries (RIRs).*
- *The Address Supporting Organization (ASO) shall advise the Board with respect to policy issues relating to the operation, assignment, and management of Internet addresses.*

Article VIII, Section 2 of the ICANN Bylaws describes the specific role of the Address Council as follows:

- *The ASO shall have an Address Council consisting of the members of the NRO Number Council.*
- *The Address Council shall select Directors to those seats on the Board designated to be filled by the ASO.*

There is one other reference to the ASO in the ICANN Bylaws. Article VII, Section 2 states that the composition of the Nominating Committee (NomCom) shall include one voting delegate selected by the *"Council of the Address Supporting Organization established by Article VIII of these Bylaws".*

In addition, since Affirmations of Commitments (AoC) was signed between ICANN and the US Department of Commerce, in September 2009, the ASO as one of ICANN's SOs, is required to appoint members to the four Review Teams that are called for.[3]

1.4.2 Differences between the respective frameworks of the ASO and of the other ICANN SOs

The description of the ASO in the ICANN Bylaws contrasts in a number of ways with the descriptions of the two other ICANN Supporting Organizations, the Country Code Names Supporting Organization (ccNSO) and the Generic Names Supporting Organization (GNSO).

The main differences are:

- Whereas the ASO is described in Article VIII Section 1 of the ICANN Bylaws as an "entity", in the first sections of Articles IX and X of the Bylaws, the ccNSO and the GNSO are described as "organizations";
- Whereas the ASO is described as an entity which *"shall advise the Board"* on policy *issues* regarding IP addresses, the ccNSO and the GNSO are respectively described as *"policy development bodies",* which *"shall be responsible for developing and recommending"* policies to the Board;
- The ASO is not specifically required to coordinate with other ICANN bodies *whereas* the ccNSO is described as being responsible for coordinating "*with other ICANN Supporting Organizations, committees, and constituencies under ICANN*";
- The Bylaws do not specify the organizational structure of the ASO, whereas the ccNSO and the GNSO's organizational structures, including their governance structures are described in full;[4]
- The Bylaws do not specify that a number of councilors on the Address Council shall be selected by the NomCom, whereas they state (Section 3 of Articles IX and X) that three councilors of the ccNSO Council and the GNSO Council shall be selected by the NomCom. It is Reviewers' understanding that the rationale behind this particular difference with the two other SOs is so as to preserve the regional balance of the Address Council. Besides, as the NRO Numbers Council which becomes the ASO Address Council with the ASO MoU, is an NRO body, it

[3] Specifically, the four AoC Review Teams were: Accountability and Transparency (ATRT); Security, Stability and Resiliency of the DNS (SSRRT); Consumer Trust and Consumer Choice; and WHOIS Policy. The respective compositions of these four Review Teams are posted at: http://www.icann.org/en/reviews/affirmation/review-teams-en.htm

[4] Article IX of the ICANN Bylaws states that the ccNSO Council shall consist of 18 councillors, fifteen are appointed by the General Managers of the ccTLDs (three councillors for each of the 5 ICANN geographic regions) and three by the NomCom. Similarly, Article X of the ICANN Bylaws states that the GNSO Council shall consist of 21 councillors: a) 3 by the Registries Stakeholder Group; b) 3 by the Registrars Stakeholder Group; c) 6 by the Commercial Stakeholder Group d) 6 by the Non-Commercial Stakeholder Group; and e) 3 by the Nominating Committee, one of which shall be non-voting, but otherwise entitled to participate on equal footing with other members of the GNSO Council including, for example, the making and seconding of motions and of serving as Chair if elected. One Nominating Committee Appointee voting representative shall be assigned to each House by the Nominating Committee. The Council is subdivided in two House - a Contracted Parties House (Registries and Registrars) and a Non Contracted Parties House (Commercials and Non- Commercials) – with equal weighted voting rights. When needed, the 4 Stakeholders Groups are subdivided in Constituencies. Presently, only the Stakeholders Groups of the Non Contracted Parties are subdivided in Constituencies, with respectively 3 Constituencies in the Commercial Stakeholder Group and 2 Constituencies in the Non Commercial Stakeholder Groups. Of course, not only all the ICANN bodies mentioned above have been recognized as such by the ICANN Board, but their respective Charters have been also approved by the ICANN Board.

would have been difficult to concede that some of their members would be selected by ICANN's Nominating Committee; and

- While the reviews of the other SOs are conducted under the SIC mechanism the ASO review is conducted under the NRO's own mechanism.

In summary, in contrast with the other two SOs that are clearly institutional bodies within the ICANN system, with governance structures specifically described by the ICANN Bylaws, the ASO is more narrowly defined as a set of functions to be fulfilled by the NRO, an organization associated with the ICANN system without being a fully-fledged part of it.

1.4.3 The NRO framework of the ASO

The Number Resource Organization (NRO) is the coordinating body for the five Regional Internet Registries (RIRs) that manage the distribution of Internet number resources including IP addresses and Autonomous System Numbers (ASN). Each RIR consists of the Internet community in its region.

The NRO came into existence, with the signature of the NRO MoU, in October 2003, as an unincorporated organization bringing together the four existing RIRs at that time.

Reviewers note that the NRO MoU states that the NRO may be legally incorporated at some unspecified time in the future, in a jurisdiction acceptable to all RIRs.

AfriNIC, which was recognized by ICANN in April 2005, joined the NRO immediately after its creation.

The NRO MoU states that the NRO shall be operated for the purposes of:

- *Serving as the coordinating mechanism of the RIRs to act collectively on matters relating to the interests of the RIRs, as delegated to the NRO by the unanimous written agreement of the RIRs;*
- *Undertaking any joint operational or external activities delegated to the NRO by the RIRs; and*
- *Entering into appropriate cooperative agreements with representative Internet coordination or administrative bodies (including any national, international or public sector entity), on such terms as the NRO Executive Council deems appropriate, in order to coordinate the activities of the NRO with the activities of those of those bodies.*

On the NRO website, an up-to-date and informative NRO FAQ provides answers to a comprehensive set of questions which the community of address space holders and Internet users at large may have about the organization.[5]

The NRO MoU states that the organizational structure of the NRO consists of an Executive Council (NRO EC), the NRO Number Council (NRO NC); and a secretariat.

The NRO MoU states that the NRO EC consists of one person appointed by each existing RIR. In practice all RIRs have, up until now, appointed their CEO to the EC. In

[5] Originally, the NRO posted a FAQ of the NRO MoU, which was largely used in the early days to present the NRO to ICANN and other third parties: http://www.nro.net/documents/nro-memorandum-of-understanding-faq

order to increase their mutual coordination the NRO and the Boards of the RIRs recently agreed to add an observer appointed by each of the Boards of the RIR to the EC.

The Chair, Treasurer and Secretary positions of the NRO EC are rotated among the RIRs, on an annual basis.

As stated by the NRO MoU, the NRO NC consists of three councilors appointed by each existing RIR. One of the three councilors appointed by each RIR is selected by its respective Board. The other two are selected via an open, accessible, documented and, as reviewers were able to verify, transparent procedure by the regional policy forum of each RIR.

The formation of the NRO by the RIRs came about as a result of the need to address the following challenges:

- It was clear that the RIRs needed a contingency solution in case of failure of the ICANN system;
- The RIRs needed to act collectively in the framework of the WSIS, where the management of the Internet's critical resources was increasingly becoming one of the main issues; and
- The RIRs also needed to act collectively in relation to the amendment of the first ASO MoU, as a result of the Evolution and Reform being adopted by ICANN at the time.

A contingency solution due to the failure of the ICANN system has never been required, however it seems an appropriate mechanism to have in place.

It is beyond the scope of this review to assess if the creation of the NRO was the best solution to the challenge regarding the management of the Internet's critical resources at the WSIS and later at the IGF and other international forums. However, Reviewers compiled a list of the main NRO statements in this field (see Annex 5.4).

Since its formation the NRO has established solid relations with the major players of the Internet ecosystem, including ISOC, the IETF and the OECD. The NRO is also a founding member of the OECD's Internet Technical Advisory Committee (ITAC).

Finally, the fact that the new ASO MoU was signed by the NRO and not by the RIRs in existence at the time, as was the case with the original MoU, shows the relevance of the creation of the NRO.

1.4.4 The ASO and the ASO MoU

The formation of an ICANN Address Supporting Organization was first proposed, on 23rd July 1999, in a letter addressed to Esther Dyson, Interim Chair of the ICANN Board, by the CEOs of the three RIRs in existence at the time, APNIC, ARIN and RIPE.[6] A formal proposal for an ASO MoU drafted by these RIRs was attached[7].

The ICANN Board approved the proposal on 26th August 1999 and on 18th October the year the first MoU was signed between ICANN and the three RIRs. The ASO was established as one of the three Supporting Organizations (SOs) within the ICANN

[6] Cover letter from the existing RIRs to Esther Dysson: http://aso.icann.org/documents/cover-letter-for-aso-proposal

[7] ASO MoU Proposal: http://aso.icann.org/documents/aso-proposal

structure, alongside the Domain Names Supporting Organization (DNSO) and the Protocol Supporting Organization (PSO).

A feature in the formation of the ASO in contrast with the other ICANN SOs is that it was initially proposed by the RIRs whose existence predated the creation of ICANN by several years. In the case of the other SOs there was no pre-existing global forum for the development of naming policies prior to the existence of the DNSO.

Hence, unlike for the former DNSO, the rationale for the ASO to legitimize the well-established and fully functional system of policy-making regarding global address space allocations within the newly created ICANN structure rather than creating a new policy-making body *ex nihilo*.

The original structure of ICANN SOs was short-lived and in February 2002 ICANN's CEO Stuart Lynn issued a report proposing a number of in-depth reforms of the ICANN structure which led to the establishment of an Evolution and Reform Board Committee (ERC).[8] The ERC went on to propose a number of structural reforms that would profoundly affect the function and operations of the three SOs.

As a result the DNSO was split into the GNSO and the ccNSO, the PSO was suppressed, and a lengthy process of negotiation regarding a new ASO MoU resulted, in October 2004, with the signing of the current ASO MoU between ICANN and the NRO.

As mentioned above, the main statement of the ASO MoU is that *"the NRO shall fulfill the role, responsibilities and functions of the ASO as defined within the ICANN Bylaws".* In particular, it states that the Address Council shall consist of the members of the NRO Numbers Council.

The current ASO MoU differs from its former iteration in four main respects:

- The new ASO MoU was signed between ICANN and the NRO, whereas the original MoU was signed between ICANN and the existing RIRs;
- With the new MoU the ASO would henceforth no longer be described as an ICANN "organization", in the sense that the GNSO and the ccNSO are. Instead, the NRO, which exists independently of ICANN acts as the ASO;
- In contrast with the previous ASO MoU, which described the ASO as a consensus-based advisory body within the ICANN framework, the current ASO MoU assigns a more narrowly-defined and passive role to the ASO. This is limited to verifying that global policy proposals have been adopted across all RIR regions, checking that the PDP in each RIR has been duly followed and, if so, to forward this global policy proposal to the ICANN Board for ratification. A global policy is defined as a policy that needs action by IANA to be implemented; and
- The new ASO MoU includes a requirement for periodic independent review, a requirement for all ICANN bodies since the ERC. However, as seen above, in the case of the ASO this review is conducted using the NRO's own review mechanism as opposed to the standard SIC mechanism.

[8] Lynn, Stuart (2002): President's Report: ICANN: The Case for Reform (http://www.icann.org/en/general/lynn-reform-proposal-24feb02.htm)

In this perspective, the Section 2 of the ASO MoU states that it was established for the purposes of:

- *Defining the roles and processes supporting global policy development, including the relationship between the Internet addressing community (represented by the NRO) and ICANN within the operation of this process;*
- *Defining mechanisms for the provision of recommendations to the Board of ICANN concerning the recognition of new RIRs; and*
- *Defining accessible, open, transparent and documented procedures for the selection of individuals to serve on other ICANN bodies, including the selection of ICANN Directors and the selection of members of various standing committees and ad hoc ICANN bodies.*

Reviewers note the strong emphasis on the procedural nature of these three purposes.

1.4.5 Attribution of ASO responsibilities within the NRO

When, according to the ASO MoU, the NRO acts as the ASO, the functions of the ASO are fulfilled either by the ASO Address Council or the NRO Executive Council.

For example, in the case of a PDP of a global addressing policy, the role of the ASO begins once consensus around a common wording for the policy proposal has been reached by all the RIRs. At this point, the NRO EC first verifies that the RIRs really have reached a common wording. If a discrepancy in the wording of the texts adopted by the five RIRs is detected, the NRO EC calls on the Policy Managers of the five RIRs to try and fix the problem. If they succeed and the NRO EC considers that the RIRs have effectively reached consensus, the policy is forwarded to the Address Council which, in turn, checks that the RIRs have duly followed their respective PDPs and double checks that common wording has indeed been reached. If the policy proposal successfully passes this checkpoint, the Address Council forwards it to the ICANN Board for ratification. Should any one of these steps fail, including a rejection or objection of the proposal by the ICANN Board, it is subsequently moved back one step in the process.

In relation to this basic functions, Section 3 of the ASO MoU states that the ASO Address Council is responsible for the following organizational roles:

- *Undertaking a role in the global policy development process as described in attachment A of the ASO MoU;*
- *Providing recommendations to the Board of ICANN concerning the recognition of new RIRs, according to agreed requirements and policies as currently described in document ICP-2;*
- *Defining procedures for the selection of individuals to serve on other ICANN bodies, in particular on the ICANN Board, and implementing any roles assigned to the Address Council in such procedures;*
- *Providing advice to the Board of ICANN on number resource allocation policy, in conjunction with the RIRs; and*

- *Developing procedures for conducting business in support of their responsibilities, in particular for the appointment of an Address Council Chair and definition of the Chair's responsibilities. All such procedures shall be submitted to the Executive Council of the NRO for approval.*

The specific functions fulfilled by the Address Council in relation to these five organizational roles are described in three documents: (i) the ICANN Bylaws, (ii) the ASO MoU and (iii) the Address Council Operating Procedures (ASO AC OP).

These tasks relate to:

- Checking that the PDP in the five RIRs have been duly followed regarding the development of policy proposals;
- Verifying that a common wording among the five RIRs has effectively been reached;
- Forwarding global policy proposals to the Board ICANN for its ratification;
- Providing advice to the ICANN Board on global policy proposals, upon request;
- Coordinating the ASO's actions when a forwarded global policy proposal has been rejected or objected by the ICANN Board;
- Appointing Directors to the Board of ICANN;
- Appointing a member of the NomCom,
- Appointing members to the Review Teams of the AoC;
- Appointing members to other ICANN bodies;
- Electing the ASO Chair and Vice Chairs; and
- Developing procedures for conducting the ASO business, which need to be ratified by the NRO EC

It appears, then, that by default all ASO functions that are not explicitly or implicitly fulfilled by the Address Council are to be fulfilled by the NRO EC.

The provision of advice by the ASO to ICANN is a case where the ASO Address Council and the NRO Executive Council can, depending on the circumstance, both have a role to play. ICANN Bylaws state that *"the Address Supporting Organization (ASO) shall advise the Board with respect to policy issues relating to the operation, assignment, and management of Internet addresses"*. This leaves open the possibility that either the AC or the EC may be responsible for providing advice.

ASO MoU, the ICANN Board Procedures for Ratification of global policies, and the ASO GPDP, on the other hand, state that the advising role of the Address Council is limited to providing advice on global policy proposals once they have been forwarded to the ICANN Board for ratification. The AC is not empowered to provide advice on any other matters.

Consequently, it must be assumed that should the ICANN Board request any advice on policy issues other than global policy proposals, this should be provided by the NRO EC. Although, presumably, nothing precludes the NRO EC, in turn, requesting the same Address Council, in its Numbers Council capacity, to advise the ICANN Board on other address space policy matters.

2 The purpose of the ASO, its effectiveness and relevance

This section addresses the first eight evaluative questions as listed in the ASO Review RFP. Insofar as it is possible and relevant, each question is treated using the same three-part structure:

- **Baseline Assessment:** Reviewers' understanding of the question to be answered;
- **Review Findings:** Presentation of relevant findings accumulated during review process - facts, appraisals, opinions, evaluations, suggestions, etc. These section are further subdivided with: Interview Findings, Survey Findings and Review Team Findings; and
- **Review Team analysis and conclusions:** Summary of Reviewers' answers to the question.

2.1 Evaluative Question 1: Has the ASO been effective in achieving its key objectives, as defined in the ASO MoU?

The ASO MoU does not explicitly define the ASO's key objectives. Instead it defines the three main purposes for which the MoU was established and the organizational roles of the Address Council in relation to these purposes. Consequently, in order to address this Evaluative Question, Reviewers decided to conduct an assessment based on the ASO's implied key objectives, taking into account the fact that:

- The three purposes for the establishment the ASO MoU, as stated in Section 2 of the ASO MoU and analyzed above (Section 1.4.4), indicate that the ASO was intended to have a procedural role;
- The responsibilities of the ASO Address Council in relation to the five organizational roles listed in Section 3 of the MoU and analyzed above (Section 1.4.5), suggest that not all the functions associated with these organizational roles are necessarily fulfilled by the Address Council; and
- The Evaluative Question in this case refers to the ASO, and not merely to the ASO Address Council. Therefore the key objectives in question should be more broadly defined than the 'Responsibilities of the ASO AC' as defined by the MoU.

Reviewers decided that the five organizational roles as defined in Section 2 of the ASO MoU and for which the Address Council is responsible are a reasonably good proxy for the implicit key objectives of the ASO. However, for each role it was considered necessary to identify procedural side and an action side. Consequently, with a view to establishing the ASO's implicit key objectives, Reviewers slightly reinterpreted the five organizational roles, widening their scope somewhat to take into account the roles and functions of both the ASO Address Council and the NRO EC. In each case the procedural aspects are distinguished from the related tasks. The objectives are defined as:

- To undertake the role of the ASO in the global policy development process, as described in attachment A of the ASO MoU, and to define all the procedures needed in this respect;
- To provide recommendations to the Board of ICANN concerning the recognition of new RIRs, according to agreed requirements and policies as currently

described in document ICP-2, and to define the mechanisms for the provision of these recommendations;
- To select individuals to serve on other ICANN bodies, in particular two Directors of the ICANN Board, and to define specific selection procedures in each case;
- To provide advice to the Board of ICANN on number resources policy issues, in conjunction with the RIRs, and to define the procedures for the provision of this advice; and
- To elect the Chair of the Address Council and to define and compile the procedures for conducting business in all ASO matters, in particular regarding the appointment of an Address Council Chair and definition of the Chair's responsibilities.

In the following section, an overall appraisal of the degree to which the ASO has effectively achieved these key objectives is presented. In subsequent sections, each key objective is considered separately.

2.1.1 EQ1: Overall appraisal

Baseline assessment

The degree to which the ASO has effectively achieved its five key objectives can, in most cases, be measured quantitatively in relation to the number of actions requested that have been effectively undertaken.

However, the procedural roles associated with each key objective cannot be quantitatively assessed in the same way given their intrinsically permanent and qualitative character. Nevertheless, individual interviews and survey respondents expressed qualitative opinions in this regard which are reported.

Review findings

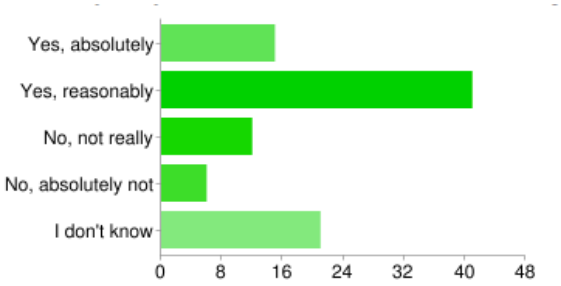
Interview findings

Interviewees' overall impression was that the ASO operates in a discreet and efficient manner and has largely achieved its objectives as laid out in the MoU. There is a marked difference of opinion, however, between ASO insiders including NRO/RIR members and ICANN Board and executive staff, on one hand, and the broader ICANN community, on the other. While those more closely linked to the operations of the ASO generally have a good understanding of its purpose and function and a positive impression regarding its achievements, the broader ICANN Community, including the representatives of the other SOs and ACs often have a partial or even complete lack of knowledge regarding the precise function and achievements of the ASO.

Survey findings

The results of the survey (Figures 4 and 5) show that 59% of respondents (all categories) consider that the organization has been either reasonably or very effective in achieving its objectives as defined by the MoU. A non-negligible 19% considers that it has been not really or not at all effective, and a significant 22% do not know.

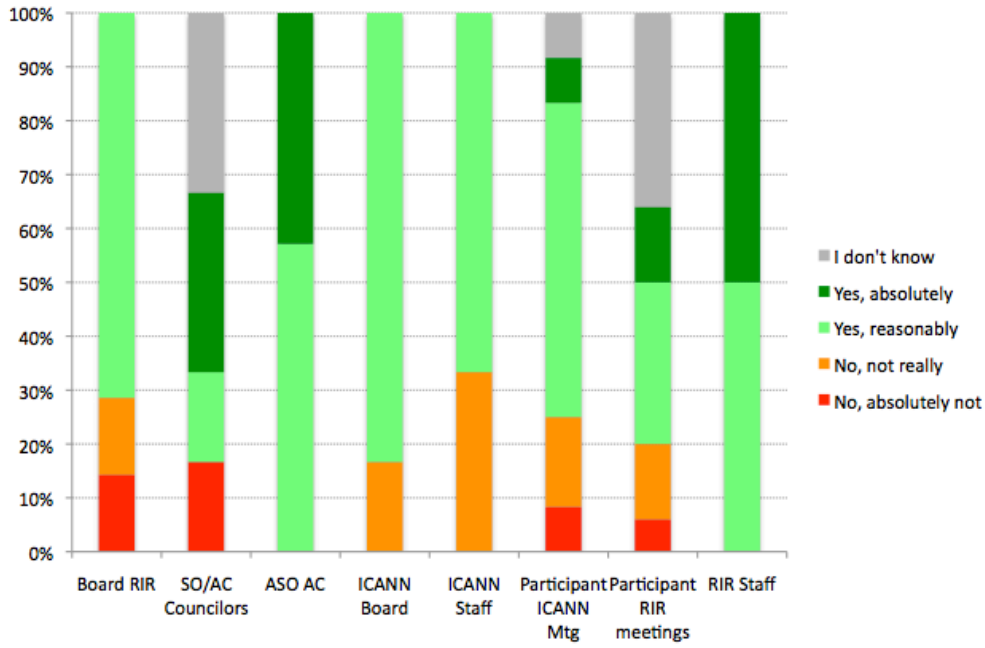
Figure 4: Would you say that the ASO has been effective in achieving its objectives as defined in the ASO MoU? (all respondents)



Yes, absolutely	15	16%
Yes, reasonably	41	43%
No, not really	12	13%
No, absolutely not	6	6%
I don't know	21	22%

The same result broken down per respondent affiliation reveals much higher rates of satisfaction among ASO AC and RIR staff members (100%), followed by ICANN Board members (80%). The highest rates of dissatisfaction are expressed by ICANN staff (32%), RIR Board Members (28%) and ICANN meeting participants (24%).

Figure 5: Would you say that the ASO has been effective in achieving its objectives as defined in the ASO MoU? (results per respondent affiliation)



Review Team findings

For each one of the ASO's key objectives Reviewers made a quantitative assessment of the number of actions requested which have been effectively undertaken. The results are the presented in the following table.

Table 1: Degree to which the ASO's objectives have been achieved

Objective 1	To undertake the role of the ASO in the global policy development process, as described in attachment A of the ASO MoU, and to define all the procedures needed in this regard	
Assessment	It was assessed that five out of five global policies agreed by the RIRs, under the current MoU were forwarded to and ratified by the ICANN Board.	✓✓
Objective 2	To provide recommendations to the Board of ICANN concerning the recognition of new RIRs, according to agreed requirements and policies as currently described in document ICP-2, and to define the mechanisms for the provision of these recommendations	
Assessment	It was noted that the only recognition of a new RIR – the recognition of AfriNIC in 2005 - was recommended by the ASO and adopted by the ICANN Board.	✓✓
Objective 3	To select individuals to serve on other ICANN bodies, in particular two Directors of the ICANN Board, and to define specific selection procedures in each case	
Assessment	It was observed that the Address Council duly developed procedures for the election of ICANN Board Directors and, in the framework of the current ASO MoU, has appointed 4 Board Directors, 10 NomCom members and 4 members of the AoC Review Teams. However, the Address Council has not yet developed procedures for the appointment of the members of the NomCom and of the AoC Review Teams.	✓
Objective 4	To provide advice to the Board of ICANN on number resources policy issues, in conjunction with the RIRs, and to define the procedures for the provision of this advice	
Assessment	It was noted that the Address Council has provided in a timely manner to the ICANN Board regarding the 4 global policies for which an advice was requested.	✓✓
Objective 5	To elect the Chair of the Address Council and to define and compile the procedures for conducting business in all ASO matters, in particular regarding the appointment of an Address Council Chair and definition of the Chair's responsibilities.	
Assessment	It was noted that the Address Council has developed procedures for: the Election of the Chair and Vice Chairs; the Global Policy Development Process; the Meetings Management; the Rule of Order and the Procedures' Amendment. The Procedures regarding the Duties of the Chair and Vice Chairs are finalized but not yet published. It was noted that the Address Council has elected a Chair every year since the signature of the ASO MoU.	✓

Review team analysis and conclusions

Reviewers' overall appraisal is that the ASO AC has been highly effective in achieving its five key objectives, as defined by the ASO MoU.

2.1.2 EQ1, Key Objective 1: To undertake the ASO's role in the global policy development process, as described in attachment A of the ASO MoU, and to define all the needed procedures in this respect

Baseline assessment

Section 5 of the ASO MoU defines a global policy as a policy that *"[has] the agreement of all RIRs according to their policy development processes and ICANN, and requires specific actions or outcomes on the part of IANA or any other external ICANN-related body in order to be implemented."*

The specific roles of the ASO in the global policy development process are described in Attachment A of the ASO MoU. They are:

- If a global policy proposal is submitted directly to the Address Council, the members of the Address Council will notify their respective RIRs within ten days of the introduction of the policy proposal to the Address Council. The Chair of the Address Council will place the global policy proposal on the agenda of the next Address Council meeting as an information item;
- When a global policy has been adopted by all the RIRs the NRO EC has to check if a common wording has effectively been reached. If not, the NRO EC will ask the Policy Managers of the RIRs to try to fix the problem;
- The NRO EC is required to forward to the Address Council all global policies that have been adopted with a common wording by all the RIRs;
- The Address Council is required to check if the respective PDPs of the five RIRs have been duly followed and that a common wording has been effectively reached;
- The Address Council is required to forward the global policy to the ICANN Board for ratification;
- The Address Council is required to provide advice to the ICANN Board regarding the global policy, upon request;
- If the ICANN Board rejects the proposed policy it must deliver to the ASO Address Council a statement of its concerns with the proposed policy including, in particular, an explanation of the significant viewpoints that were not adequately considered during the regular RIR process, within 60 days of the Board action; and
- The ASO Address Council, in conjunction with the RIRs and working through agreed procedures, shall consider the concerns raised by the ICANN Board, and engage in a dialogue as appropriate with the ICANN Board.

Since the signing of the ASO MoU, this GPDP has been expanded with the adoption of procedures, in parallel, by the ICANN Board and the Address Council.

On the ICANN side, in keeping with Section 5 of the ASO MoU, which states that *"the ICANN Board will ratify proposed global policies in accordance with the Global Policy Development Process, using review procedures as determined by ICANN",* the Board adopted, in July 2005, the *"Board's Review Procedures for Global Internet Number Resource Policies Forwarded for Ratification by the ASO Address Council in accordance*

with the ASO MoU".[9] Specifically, the main additions of these Board Procedures to Attachment A of the ASO MoU are:

- Article 1 states that *"When, in accordance with step 1 in the Global Policy Development Process of the ASO MoU (Attachment A, article 1), ICANN staff liaising with the addressing community becomes aware of a global policy development within the scope of the ASO MoU, ICANN staff informs the ICANN Board of this development. The Board decides, as and when appropriate, that this development should be followed by ICANN staff and instructs the ICANN CEO to assign staff for this purpose. ICANN staff so assigned shall inform all ICANN Supporting Organizations and Advisory Committees, shall establish an ICANN web page to be kept up to date and shall compile a background report to be kept up to date on this global policy development. This background report shall be provided to the Board as requested".* The rationale behind the drafting of this tracking report was to prepare, as early as possible, all relevant documentation in order to be able to comply with the 60-days window during which the ICANN Board has to decide about the ratification of a global policy. In practice, this tracking report has come to be known as the Early Awareness Report; and
- Article 3 states that *"In accordance with Attachment A, article 8 of the ASO MoU, the ICANN Board will proceed as follows, prior to any deliberations, within one day after the receipt of a proposed global policy: a) The Board Secretary sends a request to the ASO AC for advice on this proposed global policy to be delivered at least 30 days before expiry of the 60 days window for Board response".* As a result the provision of advice by the Address Council to the ICANN Board, upon request, in fact became an additional step in the GPDP.

On the ASO side, the Address Council has regularly updated the GPDP by means of additions to the *Operating Procedures of the Address Council of the Addressing Supporting Organization* (ASO AC OP). Section 6 of the ASO AC OP concerning the GPDP has evolved with the following additions to the GPDP:

- Section 6.3 of the ASO AC OP concerns the Policy Proposals Facilitator Team (PPFT). Specifically, this procedure states that at *"the beginning of each term the Address Council shall organize at least one (1) Policy Proposal Facilitator Team (PPFT) consisting of one council member from each of the regions. During the course of the year additional teams may be formed at the discretion of the council."* In spite of its name, this procedure does not explicitly empower a GPFT with a facilitating role;
- Section 6.4.1 of the ASO AC OP concerns global policy proposals submitted directly to an RIR Forum. Specifically, this procedures states that within *"ten (10) days of the introduction of a global policy proposal in a particular region, the PPFT member of that region will notify the Chair of the Address Council of the introduction of the proposal. The Chair of the Address Council will notify the council of the proposal and will place the policy proposal on the agenda of the next regularly scheduled meeting of the Address Council as an information item. At this meeting the Address Council will examine the proposal to determine if it meets the definition of a global policy. If it does not then the PPFT member of the particular region will notify the appropriate RIR that the*

[9] Board's Review Procedures for Global Internet Number Resource Policies Forwarded for Ratification by the ASO Address Council in accordance with the ASO MoU: http://www.icann.org/en/general/review-procedures-pgp.html

policy proposal that it does not meet the criteria of a policy proposal. The Address Council will take no further action. If on the other hand the proposal meets the criteria of a global policy proposal then the PPFT will within ten (10) days of the completion of the determination request to their respective RIR that the policy proposal be placed in the policy forum for their region for processing in accordance with the regional policy development process". It is clear that even if the AC decides that a policy is not global it is not entitled to take action in this regard;

- Section 6.4.2 of the ASO AC OP concerns global policy proposals submitted directly to the Address Council. Specifically, this procedures states that within *"ten (10) days of the submission of the proposal to the Address Council, the Chair of the Address Council will notify the council of the proposal and will place the policy proposal on the agenda of the next regularly scheduled meeting of the Address Council as an information item. At this meeting the Address Council will examine the proposal to determine if it meets the definition of a global policy. If it does not then the Chair will notify the proposal author that the policy proposal that it does not meet the criteria of a policy proposal. The Address Council will take no further action. If on the other hand the proposal meets the criteria of a global policy proposal then the PPFT will within ten (10) days of the completion of the determination request to their respective RIR that the policy proposal be placed in the policy forum for their region for processing in accordance with the regional policy development process.*" Independently of the merits of this procedure it is clear that it is not aligned with the description of the GPDP in Attachment A of the ASO MoU, which does not empower the Address Council to decide if a policy proposal is effectively a global policy;
- Section 6.4.3 of the ASO AC OP concerns global policy proposal requests submitted directly by the ICANN Board to the Address Council. In particular, this procedures states that the *"ASO MoU provides for the ICANN Board to request that the Address Council initiate a policy proposal. Any such request must include an explanation of the significant viewpoints that call for policy development and must meet the requirement of a global policy proposal. The Address Council will organize a policy proposal team consisting of one (1) member from each region. This team will work with the ICANN staff to draft such a proposal and will submit it to the ICANN board for concurrence before proceeding further. Once the language of the proposal is mutually agreed upon by the ICANN board and the Address Council the PPFT will request to their respective RIR that the policy proposal be placed in the policy forum for their region for processing in accordance with the regional policy development process."* Aside from the merits of this procedure it is clear that it is not consistent with Consideration 1 to Attachment A of the ASO MoU, which states that through *"the provisions of an agreement to be executed between the RIRs and ICANN, it is recognized that the ICANN Board has the ability to request that the ASO Address Council initiate a policy development process through the RIRs"*;
- Section 6.5 of the ASO AC OP concerns the Discussion Phase of global policies at the level of the RIRs. In particular, it states that the *"PPFT will monitor the progress of the proposal and will report on this progress at each meeting of the Address Council until such time as the proposal is remanded to the Address Council for the ratification phase. (It should be noted that the ASO MoU provides for the staffs of the individual RIRs to reconcile the language between the RIRs)."* Formally, this means that the PPFT is intended to be an information

channel to the Address Council about the progress of the discussion at the level of the RIRs, without any recognized facilitation role; and

- Section 6.6.1 of the ASO AC OP concerns the Address Council Review Segment of global policies. In particular, it is stated that this process starts when a global policy is forwarded to the Address Council by the NRO EC at which point the PPFT role shifts to become the drafter of the report that checks that the PDP of each particular RIR has been duly followed and that common wording for the policy has effectively been reached.

Reviewers note that the procedure mentioned above regarding the possibility for the ICANN Board to request the Address Council to initiate a global policy proposal still needs to be agreed. In addition, the following two procedures also need to be agreed by the signatories of the ASO MoU:

- Step 12 of Attachment A of the ASO MoU states that when a global policy has been rejected or objected by the ICANN Board, then the *"ASO Address Council, in conjunction with the RIRs and working through agreed procedures, shall consider the concerns raised by the ICANN Board, and engage in a dialogue as appropriate with the ICANN Board*"; and
- Step 15 of Attachment A of the ASO MoU states that if *"the resubmitted proposed policy is rejected for a second time by ICANN, then the RIRs or ICANN shall refer the matter to mediation using an agreed procedure to resolve the matter"*.

Review findings

Interview findings

Individuals directly involved in policymaking in the area of Internet Protocol address space either because they are staff members of an RIR, RIR Policy Chairs or Co Chairs, members of ARIN's Advisory Council, members of the Boards of one of the RIRs, Councilors at the Address Council, generally concur that the ASO's role in the global policy development process has been reached in a wholly efficient and effective manner.

Nevertheless, a significant number of interviewees in this category also referred to a limitation in the global policy development process regarding how to resolve situations in which consensus around the wording of policy proposals has not been reached by all five RIRs. The case of the policy proposal regarding the allocation by IANA of retuned IPv4 legacy space, where consensus was only reached by four RIRs, was often cited in this regard.

Interviewees who raised this issue were generally in favor of the creation of a facilitating mechanism to address this perceived limitation. However, Reviewers were surprised to find that no one, not even the members of the PPFT teams, suggested that the PPFT mechanisms could play the needed facilitator role.

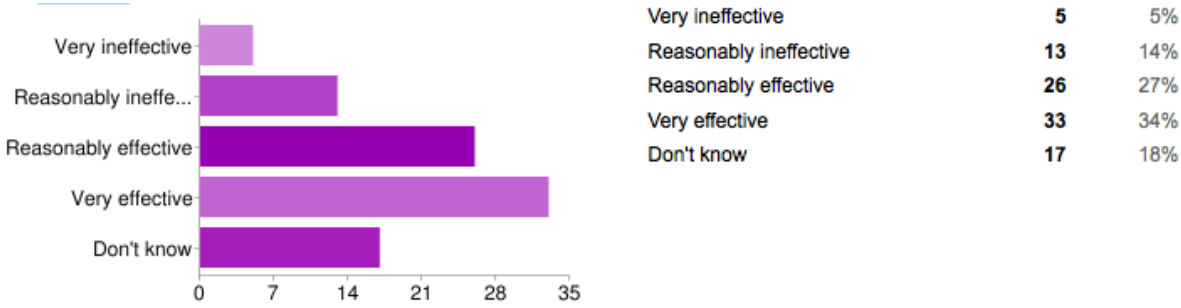
Some Address Council members suggested that whatever facilitating mechanism is found its role should be widened to include Uniform Policies that are adopted by the five RIRs but which do not require ratification by ICANN since they do not affect IANA. However, they do not consider that the authors of global or uniform policies should be required to submit their policies directly to the Address Council.

In contrast, interviewees without a direct involvement in the global policy development process tended to be unaware or only partially aware of the achievements accomplished in this area. However, a large majority has the impression that the ASO has achieved its objective as far as playing a role in the global policy development process in an effective and uncontroversial manner.

Survey findings

As shown in below (Figure 6), the global view in this regard is reasonably positive. 61% of respondents consider that the ASO has been effective or very effective in undertaking its role in relation to the development of global policies, 19% that it has been ineffective, and 18 % declares not knowing.

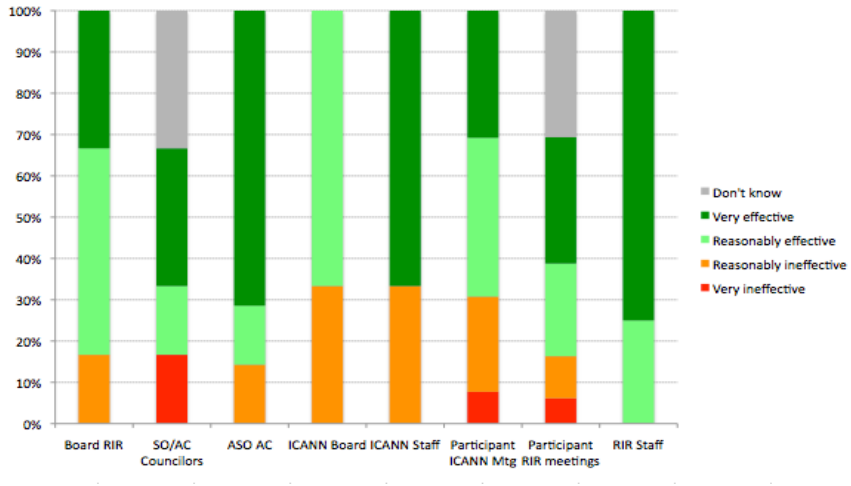
Figure 6: How effective do you think the ASO has been in terms of submitting global policy proposals to the ICANN Board? (all respondents)



Very ineffective	5	5%
Reasonably ineffective	13	14%
Reasonably effective	26	27%
Very effective	33	34%
Don't know	17	18%

The same results broken down per respondent affiliation (Figure 7) reveal much higher rates of satisfaction among RIR staff members (100%), followed by Address Council members (88%) and Board RIRs members 86%. While the highest levels of dissatisfaction were expressed by ICANN staff (32%), ICANN Board (31%) and ICANN meeting participants (30%).

Figure 7: How effective do you think the ASO has been in respect of submitting global policy proposals to the ICANN Board? (results per respondent affiliation)



Review Team findings

Reviewers noted that five global policies have been developed and ratified by the ICANN Board in accordance with the Policy Development Process (PDP) as defined in attachment A of the MoU. In chronological order these are:

- Allocation of IPv4 Address Space by the Internet Assigned Numbers Authority (IANA) Policy to the Regional Internet Registries, ratified in April 2005: http://aso.icann.org/wp-content/uploads/2009/09/aso-001-2.pdf ;
- Allocation of IPv6 Address Space by the Internet Assigned Numbers Authority (IANA) Policy to the Regional Internet Registries, ratified in September 2006: http://www.icann.org/en/general/allocation-IPv6-rirs.htm ;
- Global Policy for allocation of ASN blocks to the Regional Registries, ratified in July 2008 and rendered obsolete in September 2010: http://www.icann.org/en/general/global-policy-asn-blocks-31jul08-en.htm ;
- Global Policy for the Allocation of the Remaining IPv4 Address Space, ratified in March 2009: http://www.icann.org/en/general/allocation-remaining-ipv4-space.htm ; and
- Global Policy for Autonomous System Numbers, ratified in September 2010 http://www.icann.org/en/announcements/announcement-2-21sep10-en.htm

Reviewers verified that, with the only exception of the first of these five policies, the Early Awareness Report has always been issued. Reviewers also verified that the ICANN Board effectively requested advice from the Address Council for the four latter policies, and that this was always provided within the 30-day window allocated for this purpose. With these five policies, all the assignments of available IP addresses by IANA to the RIRs have a corresponding global policy.

Should any blocks of legacy IPv4 addresses ever be returned to IANA there is, at present, no global policy for the re-allocation of this space to the RIRs, although Reviewers are informed that there is a global policy proposal that has been adopted by all the RIRs with the exception of ARIN, which is currently under the *last call* Review at the ARIN Advisory Council.

Reviewers examined the procedural activity undertaken by the Address Council regarding the GPDP and concluded that the Council has functioned in a fully effective manner. Notwithstanding, Reviewers have the following remarks:

- Regarding the procedure described in Section 6.4.1 of the ASO AC OP when a global policy has been submitted to the RIRs and not directly to the ASO, Reviewers are not aware of any cases in which the Addresses Council has ever taken action to determine if a policy proposal meets the definition of a global policy. Moreover, it seems clear that the Address Council is not entitled to take any action on a global policy proposal before it has been formally forwarded to it by the NRO Executive Council;
- Regarding the facilitation role of the PPFT in this same situation, Reviewers observed that even if they are not formally entitled to assume this role, in practice they have been quite effective in this respect. However, some form of political empowerment may be required;
- Regarding the procedure described in Section 6.4.2 when a global policy has been submitted directly to the Address Council, Reviewers first appraisal is that,

if the global policy regarding the allocation by IANA to the RIRs of returned IPv4 legacy space had initially been submitted directly to the Address Council, under this procedure, the policy would most likely have been returned to the authors at an early stage given that the original policy was, in part, a global policy, but also clearly a regional policy. However, Reviewers consider that the alignment of this procedure with Attachment A of the ASO MoU will require an amendment of the MoU. Indeed, according to Attachment A of the ASO MoU, as mentioned above, no action regarding a global policy proposal may be taken by the Address Council before the proposal has been formally forwarded to it by the NRO EC. It would appear that this alignment would also relieve the obstacle encountered by the Address Council to take actions when a policy proposal has been submitted to the RIRs and not directly to it, as underlined above; and

- Regarding the procedures requested by Step 12, Step 15 and Consideration 1 of Attachment A of the ASO MoU, mentioned above, Reviewers consider that the MoU signatories should agree on these procedures as early as possible.

Review team analysis and conclusions

Taking into account the Baseline Assessment and the Findings above, Reviewers' assessment is that the ASO has been highly effective in achieving Key Objective 1, as referred to in Attachment A of the ASO MoU, both in undertaking the ASO role in the development of global addressing policies and in defining all associated procedures.

Notwithstanding, Reviewers recommend an amendment to the ASO MoU to ensure that it is consistent with the description of the GPDP as described in the ASO AC OP, regarding the empowerment of the Address Council to determine if a policy proposal which is submitted directly to it meets the definition of a global policy.

Reviewers do not recommend the submission of global policies to the Address Council as a mandatory track. If the submission of global policies at the level of the RIRs has worked well for first five global policies there does not seem to be any compelling to substitute this. Consequently, Reviewers recommend maintaining both tracks, with perhaps an invitation to the Policy Chairs in each region to make their communities more aware of the existence of a mechanism to submit global policy proposals directly to the ASO, and to the authors of policy proposals to test as early as possible if their proposals really meet the definition of a global policy.

Reviewers also recommend that the three agreed procedures between the signatories of the ASO MoU as described in Attachment A regarding, respectively, the procedures to deal with global policies rejected or objected by the ICANN Board, the mediation mechanism in case of rejection of a resubmitted global policy and the request by the ICANN Board to the Address Council to initiate a global policy, be defined as soon as possible.

Regarding the empowerment of the PPFT with a more specifically defined Facilitator role, Reviewers considers that the NRO may unilaterally decide this without having to amend the ASO MoU.

Finally, the Review Team supports the suggestion that the PPFT mechanism could also be successfully applied to uniform policies. However, it is clear that this suggestion is out of scope of this review.

2.1.3 EQ1, Key Objective 2: To provide recommendations to the Board of ICANN concerning the recognition of new RIRs, according to agreed requirements and policies as currently described in document ICP-2, and to define the mechanisms for the provision of these recommendations

Baseline assessment

ICANN Policy "ICP-2: Criteria for the Establishment of New Regional Internet Registries" was adopted by the ICANN Board in June 2001. The policy was drafted by the three existing RIRs at that time, ARIN, APNIC and RIPE. It was recommended to the ICANN Board by the Address Council within the framework of the first ASO MoU.

The policy details the criteria for the establishment of new RIRs, which may be delegated responsibility for the management of Internet addresses within a given region of the world. ICP-2 unquestionably legitimized ICANN's right to delegate and even, theoretically, to re-delegate the management of numbers resources.

ICP-2 was applied for the first time in October 2002, still within the framework of the first ASO MoU, with the recognition of LACNIC by the ICANN Board.[10] The next and last application of ICP-2 was in April 2005, with the recognition of AfriNIC, this time within the framework of the current ASO MoU.[11]

Prior to this, in September 2004, the existing RIRs, APNIC, ARIN, LACNIC and RIPE NCC, through the NRO, issued a statement expressing their on-going and continuing support for AfriNIC, and recommended a favorable response to the application. On 21st February 2005, the Chairman of the NRO (and CEO of RIPE NCC) and the CEO of AfriNIC jointly communicated the NRO's favorable assessment of AfriNIC's readiness for final approval and recognition.[12]

It is clear that the NRO's understanding is that the fulfillment of this objective was the responsibility of the NRO EC, not that of the ASO AC.

Review findings

Interview findings

Insofar as the last time an RIR was recognized was in 2005, with the recognition of AfriNIC, and that there are, to our knowledge, no other RIRs currently in formation, the Review Team did not raise this issue as matter of course during interviews.

The issue of the recognition of new RIRs was raised by some interviewees, notably in relation to a series of letters sent by Depository to various ICANN senior officers. Comments made in relation to these letters tended to be that if Depository's intention

[10] The ICANN Board Resolution of Recognition of LACNIC was adopted on October 31, 2002: http://www.icann.org/en/minutes/minutes-31oct02.htm

[11] The ICANN Board Resolution of Recognition of AfriNIC was adopted on April 8, 2005: http://www.icann.org/en/minutes/minutes-08apr05.htm

[12] These NRO statements are recollected in the IANA Report on AfriNIC's recognition, of April 8, 2005, which is the background document of the ICANN Board Resolution in this respect: http://www.iana.org/reports/2005/afrinic-report-08apr2005.html

were to become an address space registry, they would need to follow the process defined in Policy ICP-2.[13]

A few interviewees pointed out that one of the letters sent by Depository included a reference to the exchange of letters of mutual recognition between ICANN and the NRO, in December 2007, expressing their commitment to seek, within a year, to establish an appropriate legal arrangement, something which apparently has not happened.

Depository's line of argument is hard to follow as it only refers to the letter from ICANN to the NRO, which was an answer to a previous letter from the NRO to ICANN. Depository also omits to mention a more recent exchange of letters, reaffirming the previous exchange. However, the fact that this exchange of letters between ICANN and the NRO is not easily accessible on either the ICANN or NRO websites does not help to clarify this issue. At present, to find the letters one needs to know that they exist, their dates and their signatories.

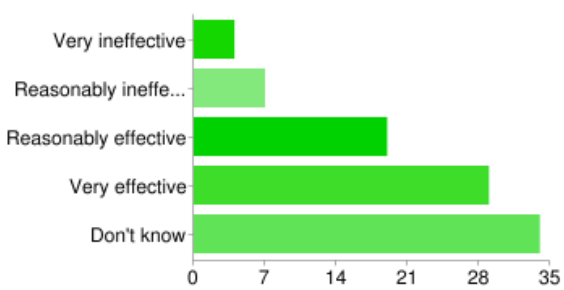
Once this issue was brought to the attention of Reviewers subsequent interviewees were asked to comment on the need for the exchange of letters between ICANN and the NRO to be made more visible on both websites. Almost all agreed that they should become visible as soon as possible.

A few went further suggesting that the ASO MoU should be amended to include the exchange of letters. However, the majority considered that the ASO and the ASO MoU should continue to be focused exclusively on global policies.

Survey findings

As shown below (Figure 8), 51% of survey respondents consider that the ASO has been reasonably or very effective in advising the Board of ICANN regarding the recognition of new RIRs. This only moderately positive satisfaction rate is largely due to the high number of respondents (36%) that declare that they do not know. Only 11% of respondents consider that the ASO has been ineffective in this regard.

Figure 8: How effective do you think the ASO has been in respect of advising the Board of ICANN regarding the recognition of new RIRs? (all respondents)

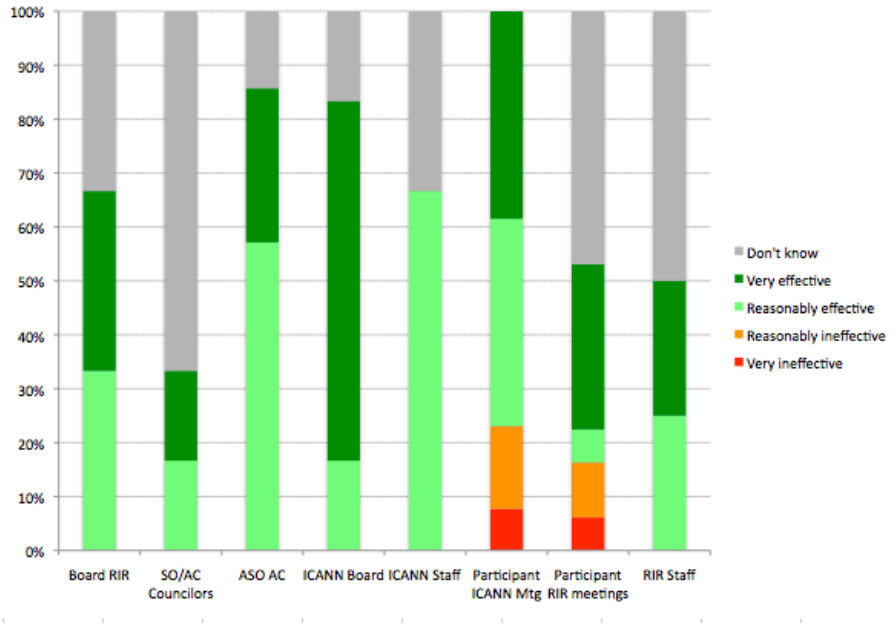


Very ineffective	4	4%
Reasonably ineffective	7	7%
Reasonably effective	19	20%
Very effective	29	31%
Don't know	34	36%

[13] There are several letters from Depositary to ICANN senior officers, but the very one we were referred to is the letter addressed to John Jeffrey, ICANN's General Council, on March 2, 2011: http://www.icann.org/en/correspondence/holtzman-to-jeffrey-02mar11-en.pdf

The response per respondent affiliation reveals generally high levels of satisfaction among RIR Board members, members of the Address Council, ICANN Board members and ICANN staff, with significant lack of awareness among members of the other ICANN SOs and ACs, and the highest rate of dissatisfaction (22%) among ICANN meeting participants.

Figure 9: How effective do you think the ASO has been in respect of advising the Board of ICANN regarding the recognition of new RIRs? (results per respondent affiliation)



Review Team findings

Reviewers verified that the ASO effectively provided a recommendation to ICANN in connection with the recognition AfriNIC, the only occasion on which the recognition of a new RIR happened under the current ASO MoU.

However, Reviewers noted that it was the NRO EC and not the Address Council that provided this recommendation. Given that the Address Council is essentially a policy-making body and that the provision of such a recommendation is not a policy function but the application of a policy, this was undoubtedly the appropriate course of action. Nevertheless, a clarification would be helpful in this respect, especially insofar as Section 3 of the ASO MoU explicitly assigns responsibility for the provision of recommendations to the ICANN Board regarding the recognition of new RIRs to Address Council (although, as seen above, in section 1.4.5, Reviewers' understanding is that this does not imply that all related functions are necessarily fulfilled by the Address Council).

Reviewers identified the two exchanges of letters between ICANN and the NRO, whose respective links are listed in the footnotes.[14] Reviewers also examined the Depository correspondence with ICANN and concluded that it is out of scope for this review to comment on further.

Regarding the procedural side of this key objective, Reviewers noted that nothing appears to have been done regarding the definition of *"mechanisms for the provision of recommendations to the Board of ICANN regarding the recognition of new RIRs",* which, we note, is one of the purposes for which the ASO MoU was established. However, as no recognition of RIR is foreseen in the near future there is not urgency regarding this pending task.

Review team analysis and conclusions

In consideration of the baseline assessment and the findings described above, Reviewers overall conclusion is that the ASO has advised the ICANN Board, as requested, regarding the recognition of new RIRs in an entirely satisfactory and effective manner.

Notwithstanding, Reviewers consider that there needs to be some clarification regarding the respective roles of the NRO EC and the Address Council. Given that this function is not strictly speaking a policy function it is *de facto* the responsibility of the NRO EC to provide this advice to the ICANN Board. This is what happened on the only occasion on which this function was fulfilled.

Reviewers also note that the definition of a mechanism for the provision of recommendations to the ICANN Board regarding the recognition of new RIRs is still pending, although there is obviously no urgency in this regard,

2.1.4 EQ1, Key Objective 3: To select individuals to serve on other ICANN bodies, in particular two Directors of the ICANN Board, and to define specific selection procedures in each case

Baseline assessment

ICANN Bylaws and the Affirmation of Commitments (AoC) state that the Address Council is currently requested to nominate individuals to the following ICANN bodies:

- Two Directors of the ICANN Board;
- One member of the NomCom; and
- One member on each of the four AoC Review Teams.

[14] Links to the exchange of letters between ICANN and the NRO:
- Letter from the NRO to ICANN, on 17 December 2007:
http://www.icann.org/en/correspondence/plzak-to-twomey-17dec07.pdf
- Letter from ICANN to the NRO, on 19 December 2007:
http://www.icann.org/en/correspondence/twomey-to-plzak-19dec07.pdf
- Letter from the NRO to ICANN, on 23 March 2009:
http://www.icann.org/en/correspondence/akplogan-to-twomey-23mar09.pdf
- Letter from ICANN to the NRO, on 17 April 2009:
http://www.icann.org/en/correspondence/twomey-to-akplogan-17apr09.pdf

The procedures for the selection of individuals to serve on other ICANN Bodies and, in particular the ICANN Board are described in the Operating Procedures for the Address Council of the Addressing Supporting Organization (ASO AC OP). This is a detailed, clearly structured and regularly updated set of procedures regarding all aspects of the functioning of the ASO.

Even though the procedures related to the Key Objective 3 do not need to be approved by the NRO Executive Council, it appears that the Address Council submitted them for approval anyway.

Section 7 of the ASO AC OP concerns the election of the ICANN Board Directors.

The Address Council has not defined selection procedures for appointments to other ICANN bodies than the ICANN Board.

Review findings

Interview findings

Given that Reviewers had previously had the opportunity to examine the procedures defined by the Address Council, they did not raise this particular issue as a matter of course during interviews.

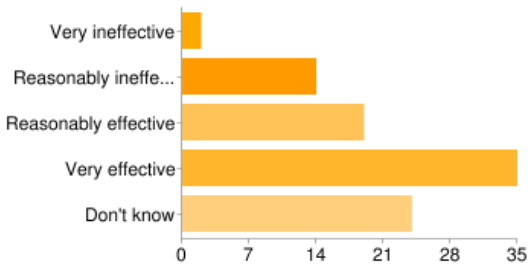
The only comments made in this regard came from members of the Address Council and ICANN Staff who indicated that the AC had spent a considerable amount of time on the discussion and definition of these procedures. From now on the task will essentially consist in periodically updating of the current procedures.

The ratification of the procedures by the NRO Executive Council was perceived as having taken an excessive length of time.

Survey findings

The following charts present the results of a series of questions regarding the effectiveness of the ASO in respect of its various responsibilities.

Figure 10: How effective do you think the ASO has been in respect of appointing directors to the ICANN Board? (all respondents)



Very ineffective	2	2%
Reasonably ineffective	14	15%
Reasonably effective	19	20%
Very effective	35	36%
Don't know	24	25%

Figure 11: How effective do you think the ASO has been in respect of appointing directors to the ICANN Board? (results per respondent affiliation)

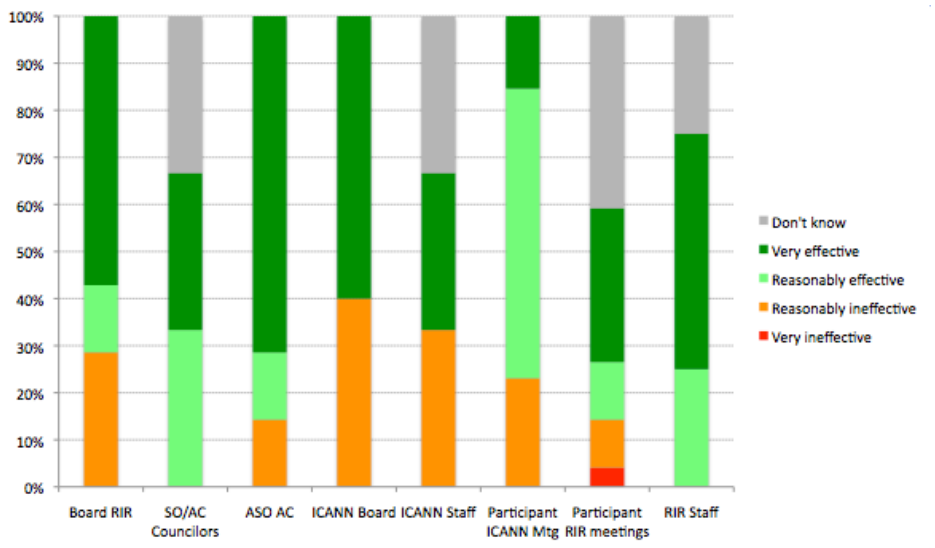
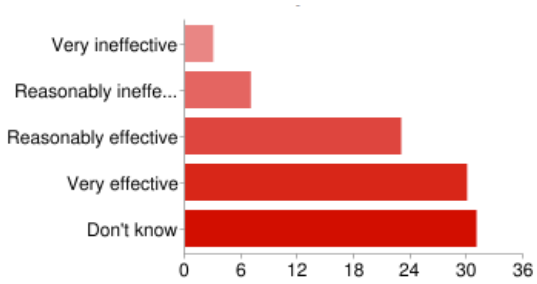


Figure 12: How effective do you think the ASO has been in respect of appointing members to the ICANN NomCom? (all respondents)



Very ineffective	3	3%
Reasonably ineffective	7	7%
Reasonably effective	23	24%
Very effective	30	31%
Don't know	31	32%

Figure 13: How effective do you think the ASO has been in respect of appointing members to the ICANN NomCom? (results per respondent affiliation)

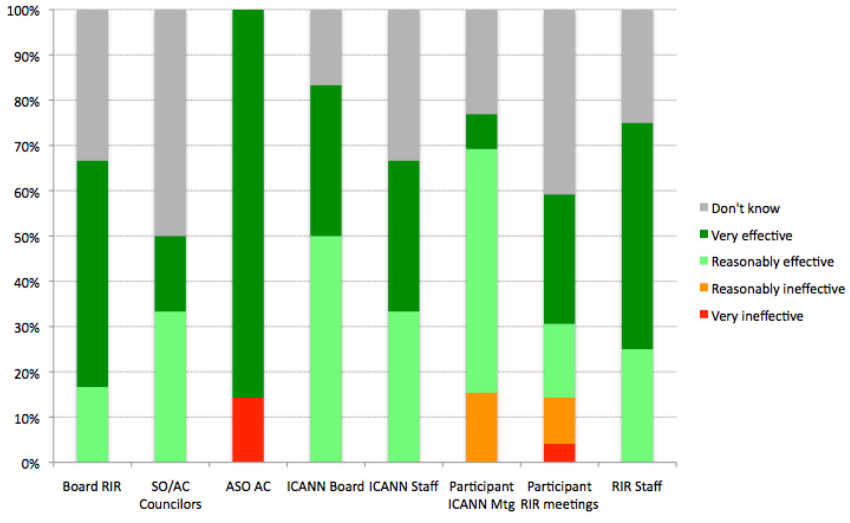
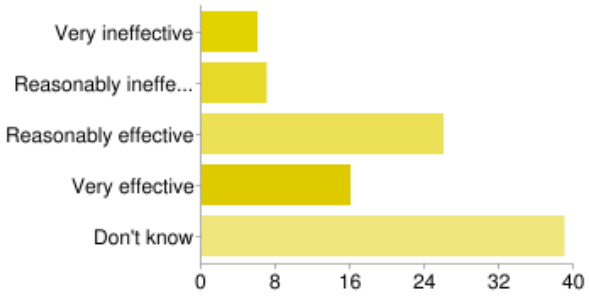
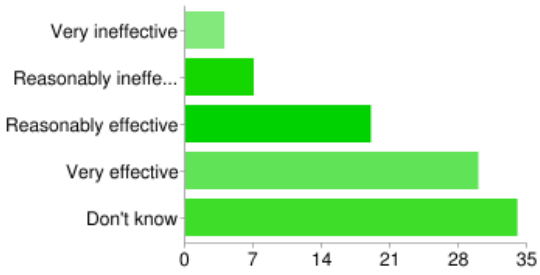


Figure 14: How effective do you think the ASO has been in respect of appointing members to other ICANN bodies? (all respondents)



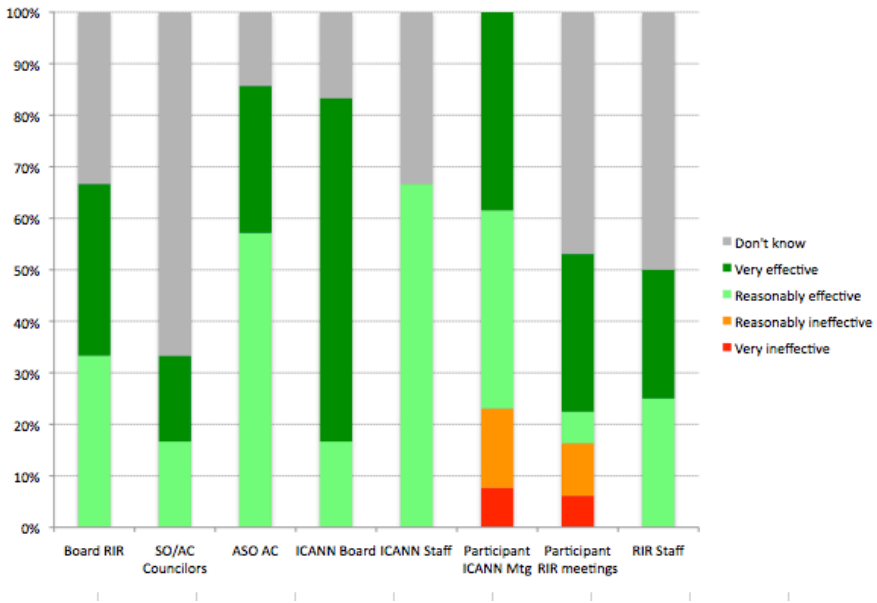
Very ineffective	6	6%
Reasonably ineffective	7	7%
Reasonably effective	26	27%
Very effective	16	17%
Don't know	39	41%

Figure 15: How effective do you think the ASO has been in respect of advising the Board regarding the recognition of new RIRs? (all respondents)



Very ineffective	4	4%
Reasonably ineffective	7	7%
Reasonably effective	19	20%
Very effective	30	31%
Don't know	34	35%

Figure 16: How effective do you think the ASO has been in respect of advising the Board regarding the recognition of new RIRs? (results per respondent affiliation)



Review Team findings

As mentioned above (Section 2.1.1), Reviewers were able to verify that, since the signing of the ASO MoU, the Address Council has successfully appointed four ICANN Board Directors, ten NomCom members and four members of the AoC Review Teams. The Review Team also verified that all these appointments have been conducted in a timely manner according to the procedures.

Reviewers observed that the procedures "*for the selection of individuals to serve on other ICANN bodies, in particular on the ICANN Board, and implement any roles assigned to the Address Council in such procedures*" were readily accessible on the ASO website and that they are thorough, easily readable and well structured.

It was noted, however, that the Address Council has not yet drafted procedures for the selection of individuals to be seated at the NomCom and at the Review Teams of the AoC.

Review team analysis and conclusions

In consideration of the baseline assessment and the findings described above, Reviewers' overall conclusion is that the ASO has functioned in an effective manner regarding the selection of individuals to sit all the appointees requested in ICANN Bodies.

Regarding the procedural aspect of this key objective Reviewer's overall conclusion is that the ASO has been effective insofar as it has defined the procedures for the selection of ICANN Board Director. However it has not yet drafted the procedures for the less strategic ICANN nominations t.

Consequently, Reviewers recommend that a general procedure for appointment of individuals to the other ICANN bodies be drafted as soon as possible.

2.1.5 EQ1, Objective 4: To provide advice to the Board of ICANN on number resources policy issues, in conjunction with the RIRs, and to define the procedures to provide this advice

Baseline assessment

The provision of advice by the ASO to the ICANN Board is referred to in four separate documents:

- The ASO MoU states, that the Address Council is responsible for the organizational role of *"providing advice to the Board of ICANN on number resource allocation policy, in conjunction with the RIRs";*
- The ASO AC OP rephrases the ASO MoU wording stating, Section 2, that the Address Council was established to perform five tasks, one of which is to provide advice to the Board of ICANN on number resource allocation policy, in conjunction with the RIRs. The wording is unambiguous and leaves no room to interpret that advice can also be provided by the the NRO EC;

- ICANN bylaws state the ASO shall advise the Board with respect to *"policy issues relating to the operation, assignment, and management of Internet addresses"*. The wording in this case is not specific regarding who should provide the advice. In addition, this wording shows that it is in ICANN's interest to request advice, given that the ASO has to provide advice if requested;
- The "Board's Review Procedures for Global Internet Number Resource Policies Forwarded for Ratification by the Address Council in accordance with the ASO MoU" states that *"within one day after the receipt of a forwarded global policy the ICANN Board shall send a request to the Address Council for advice on this proposed global policy to be delivered at least 30 days before the expiry of the 60 days window that the Board disposes to act*". In this case it is clear that for forwarded global policies the ICANN Board is mandated to request advice from the Address Council which should be provided in no more that thirty days;

In practice, within the lifetime of the first ASO MoU advice was only requested by the ICANN Board on one occasion, and no advice was provided by the Address Council unrequested.

Since the signing of the current ASO MoU advice has systematically been requested by the ICANN Board and provided by the ASO AC on the four occasions that global policy proposals have been submitted to the Board. No advice has been requested or provided unrequested on other policy issues.

Review findings

Interview findings

Interviewees with a direct connection with the function and operations of the ASO were able to confirm that the Board of ICANN has systematically sought advice within the framework of the submission of global policy proposal and that this advice has always been provided, in writing, within the agreed timeframe.

Interviewees from the addressing community reported that the ICANN Board had never requested advice from the ASO regarding policies issues other than those strictly related to global policies, and neither had the ASO provided any advice of this nature unrequested. Very few interviewees were aware that the ASO could, in theory, advise the ICANN Board regarding policy issues other than global policies.

In seeking to understand this paradoxical situation it was affirmed to us by some interviewees involved in the early discussions leading up to establishment of the ASO, that this provision in the first ASO MoU was intended to provide advice to the ICANN Board in relation to policies developed by one of the other Supporting Organizations. However, the Board has never requested such advice and, for their part, the RIRs and the NRO have never encouraged the Address Council to provide advice that has not been specifically requested.

Independently of this, a widespread opinion among interviewees in the addressing community as well as the wider ICANN community is that the Address Council is a body formed of individuals with broad experience and a high degree of legitimacy, due to the fact that they are appointed by their Boards or elected by one of the RIR public fora.

The same interviewees consider that this legitimate and experienced body is underutilized within the ICANN ecosystem. Among the issues that could be - or should

- have been the cause of a request for advice, the following were the most frequently mentioned:

- Actions to be considered in relation to ICANN's Operational Plan regarding IPv6 deployment, given its high priority in its Strategic Plan;
- The requirement for IPv6 compliance for registrars in the framework of the RAA;
- The requirement for IPv6 compliance for new gTLD applicants in the Applicant Guidebook; and
- ICANN's role as a Global Anchor Trust in RPKI.

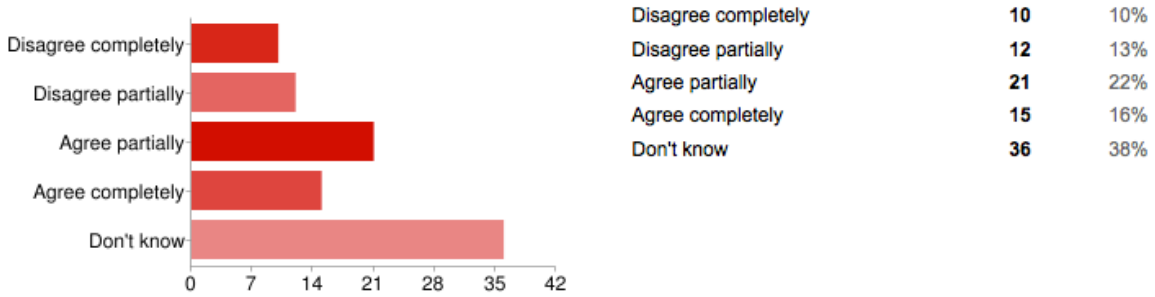
It should be noted that of these four issues the most controversial concerned the provision of advice on IPv6 deployment.

Interviewees from the ICANN community were not as categorical on the need to request advice from the Address Council, but considered that advice never hurts and could have been sought. Moreover, they were surprised by the fact that the Address Council members do not consider themselves to be empowered to provide advice unrequested, whereas the members of other ICANN constituencies frequently express their opinions during public forums at ICANN Meetings or in the calls for comments.

Survey findings

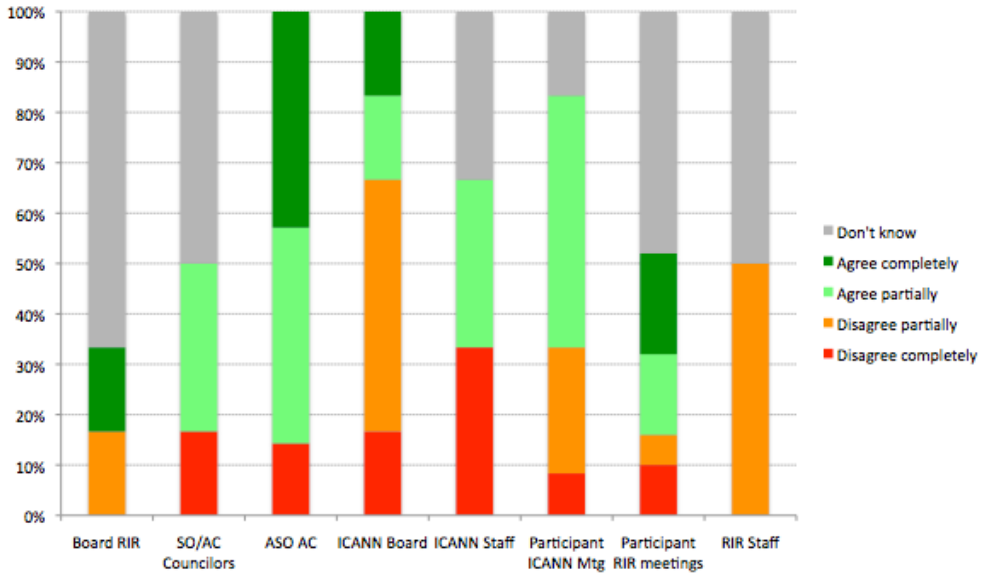
The survey results indicate that 38% of respondents agree that the ICANN Board has requested advice from the ASO when necessary, as opposed to 19% who do not. The most striking response in this case is the 'don't know' category at 41%.

Figure 17: Agree/Disagree? When necessary the ICANN Board requests advice from the ASO AC (all respondents)



The same results broken down per respondent affiliation reveal 100 % agreement from the Address Council, significant ambivalence from the ICANN Board, significant lack of awareness from the Board members of the RIRs, and significant disagreement on the part of ICANN staff.

Figure 18: Agree/Disagree? When necessary the ICANN Board requests advice from the ASO (results per respondent affiliation)



Review Team findings

Reviewers considered that to make a proper assessment of this objective a clear distinction needs to be made between three types of number resource allocation policy issues:

- Global addressing policies, as defined by the ASO MoU;
- Regional addressing policies; and
- Policy issues regarding the operation, assignment, and management of Internet addresses, as stated in the ICANN Bylaws, but which are neither global nor regional policies.

As mentioned in Section 2.1.2 above regarding global policies, the ICANN Board stated in its procedures for their ratification that it will request the advice of the Address Council on the merits of all the policies forwarded to it by the Council.

In practice, with the sole exception of the global policy regarding the allocation by IANA of IPv4 addresses to the RIRs, which was forwarded to the Board prior to the adoption of its ratification procedures, the four other global policies forwarded to the Board prompted requests for advice from the Address Council which was duly provided within the 30-day window.

The ICANN Board evidently has no right to request advice about regional addressing policies and nor would the RIRs feel the need to provide such advice to the ICANN Board unrequested.

Regarding policy issues which are neither global nor regional, it seems clear that the option is still open on both sides. However, in practice, with the sole exception of a request for advice in 2000 regarding the allocation of IPv4 addresses to research organizations, in practice, no advice has been requested by the ICANN Board and the Address Council has ever provided any advice unrequested.

In this context, Reviewers support the suggestion made by several interviewees that the ICANN ecosystem should be encouraged to make better use of the recognized capacities and legitimacy of the Address Council, mainly through requests for advice by the ICANN Board. However, in order to preserve the global policy making character of the Address Council any requests for advice on policy issues should be addressed to the NRO EC, which may decide to forward the request to the Address Council in its Numbers Council capacity.

Summing up, Reviewers appraisal regarding the provision of advice to the ICANN Board on number resources allocation is this has been conducted in an entirely effective manner.

Conversely, Reviewers have not seen much activity in this regard on the procedural side of this key objective.

Review team analysis and conclusions

In consideration of the Baseline Assessment and the Findings described above, Reviewers' assessment is that the ASO has provided advice in an entirely effective manner to the extent that advice has been requested.

On the other hand, Reviewers noted that very little has been done regarding the drafting of procedures in this regard. Even though, it does not seem necessary to devote time and effort to the drafting procedures that may well never been used, it would certainly be worth anticipating the drafting such procedures as soon as an advising mechanism is seen as having a high probability of being implemented in the near future.

Reviewers noted that the GPDP as described in Attachment A to the MoU has not yet been updated to take into account the fact that the ICANN Board will systematically request advice from the Address Council regarding the merits of global policy proposals forwarded to it.

Finally, it was considered that the provision of advice outside of the strict procedural framework of global policy proposals forwarded by the Address Council to the ICANN Board for ratification, whether requested by the ICANN Board or provided unrequested by the ASO, should be encouraged. In this context, Reviewers consider that given its specific role in the GPDP, the Address Council should not be the body which is requested to provide advice to the ICANN Board regarding policy issues other than global policy forwarded to the ICANN Board. Instead, this role should be assumed by the NRO EC. However, if deemed more appropriate, nothing should preclude the NRO EC from requesting the Address Council to advise the ICANN Board. But in this case, it should do so institutionally, in its NRO Numbers Council capacity.

These measures do not mean that the current MoU needs to be amended in order to reinforce a channel which until now has never been used.

2.1.6 EQ1, Key Objective 5: To elect the Chair of the Address and to define and compile the procedures for conducting business in all ASO matters, in particular regarding the appointment of an Address Council Chair and the definition of the Chair's responsibilities

Baseline assessment

The primary function to be fulfilled by the Address Council, in this case, was the election of its Chair. With the adoption of Section 4.1 of the ASO AC OP, the election of two Vice Chairs was later added.

The Operating Procedures for the Address Council of the Address Supporting Organization (ASO AC OP), mentioned above (Section 2.1.4), is an exhaustive and regularly updated set of procedures compiled in a single document, covering all the procedures of the ASO. These procedures have been submitted to the NRO EC for ratification.

The following procedures were developed specifically within the framework of this objective:

- Section 4.2 and 4.3 of the ASO AC OP concern the Duties of the Chair and Vice Chairs of the Address Council. We note that these procedures have not been published yet;
- Section 4.4 concerns the election of the Chairs and Vice Chairs of the Address Council;
- Section 5 concerns the organization of meetings;
- Section 7 concerns the Rules of Order; and
- Section 9 concerns amendments to the Operating Procedures.

Review findings

Interview findings

As mentioned above (Section 2.1.4), the only comments made in this regard came from members of the Address Council and ICANN Staff who indicated that the AC had spent a considerable amount of time on the discussion and definition of these procedures. From now on the task will essentially consist in periodically updating the procedures.

The ratification of the procedures by the NRO Executive Council was perceived as having taken an excessive length of time.

Review Team findings

Reviewers verified that the Chair and Vice Chairs of the Address Council were elected every year in accordance with these procedures. The action side of this key objective has been undertaken in a highly efficient manner.

Reviewers observed that all the procedures *for "conducting business in support of the ASO's responsibilities, in particular for the appointment of an Address Council Chair and definition of the Chair's responsibilities, and submitting all such procedures to the Executive Council of the Number Resource Organization for approval"* were readily accessible on the ASO website. They are thorough, well-structured and well redacted.

It was found that the duties of the Address Council Chair and Vice Chairs still need to be published, although our understanding is that this procedure is only pending ratification by the NRO Executive Council.

Review team analysis and conclusions

In consideration of the Baseline Assessment and the Findings described above, it was assessed that the ASO has been highly effective in the fulfillment of the action side of this key objective.

Given that the procedures regarding the duties of the Chair and Vice Chairs need still to be published, the procedural side of this key objective has only been accomplished in a very good but not perfectly efficient manner. However, it is recognized that the compilation of the procedures for all the ASO functions in a single document is a notable achievement.

2.2 Evaluative Question 2: Are there any internal or external elements that have prevented the full achievement of ASO's objectives? If yes, what are they?

This question is answered separately for the internal and the external blockages.

2.2.1 EQ2: Internal Blockages

Baseline assessment

In view of the effectiveness with which the ASO has achieved its key objectives, as analyzed above (Sections 2.1.1 to 2.1.6), this would suggest that there have been no significant internal blockages. Consequently, the ASO has been able to operate as it was intended to operate, efficiently and according to its mandate.

Review findings

Interviews findings

During face-to-face interviews Reviewers received no comments in relation to internal blockages that may have prevented the full achievement of the ASO objectives.

A number of interviewees commented on the occasionally tense relationships between the RIR community as represented by the NRO and ICANN, especially in the early years after the formation of the ASO. Nevertheless, they did not suggest that this tension had, in any way, had a negative impact in the fulfillment of the ASO's objectives.

Others commented on the absence of a space or forum for consultation and discussion on global policy issues at a global level, a forum in which global players could participate. In their opinion the absence of such a forum comparable to the RIR policy forums but at the level of ICANN, may have resulted in missed opportunities for engaging in important policy discussions.

However, Reviewers did not detect much support for this suggestion. A majority of respondents countered this suggestion by saying that the ASO was never intended to become a global discussion forum which would be contrary to the bottom-up policy-development principles on which it was founded. They also indicated that many global players with an interest in IP address space policy making are already taking part in discussions at the level of the RIRs, i.e. the current system already allows all interested parties to make their voice heard.

Review Team findings

Reviewers did not identify any significant internal blockages that may have adversely affected the full achievement of any ASO objective.

The claims regarding the occasionally tense relationships between the RIRs as represented by the NRO and ICANN were examined. It was concluded that it is an issue that lies beyond scope of this review to comment on except to say that relations appear to be considerably better today than at various times in the past. As far as the institutional relationship between ICANN and the NRO within the framework of the ASO MoU is concerned, Reviewers did not detect any particular tensions. On the contrary, the two organizations repeatedly and publicly express strong support for each other.

Reviewers also examined the idea put forward by some interviewees regarding the creation of a global forum for the discussion of global policies. It was noted that when the ASO was created, in 1999, the RIRs rejected the idea of creating such a global forum as well as the possibility of any direct representation of industry constituencies in the Address Council. The Cover letter of the RIRs proposal of an ASO MoU stated: *"We note that no additional means of Internet Service Provider (ISP) representation is provided within the proposed ASO structure. Given the open nature of participation in the process of policy determination, and the structure of the RIRs as an* industry*-based membership organization, we are of the view that industry is well represented and, importantly, well balanced, within the RIR policy forums. Furthermore, we are of the view that any additional measures of inclusion of additional representation of any particular industry sector within the ASO has the potential to bias the operation of the ASO to assume positions supportive of only one sector of a broader constituency of consumers of Internet address space.*"

It seems that there is more enthusiasm for this type of forum in the wider ICANN community than within the addressing community. In particular representatives of the GNSO ISP Constituency expressed an interest in participating in policy discussions with the representatives of the ASO. Having discussed this issue with the Chair and various representatives of the GNSO ISP Constituency, it seems that this constituency would be willing to host such a forum once a year at an ICANN meeting. The participation in these meetings of members of the GPFT teams for ongoing global policy proposals would certainly contribute to the process of building consensus.

However, it should be made clear that exchanges in such a space or forum would only be informational and by no means constitute a step of the GPDP.

Review team analysis and conclusions

In consideration of the Baseline Assessment and the Findings described above, Reviewers conclude that the ASO has not faced any internal elements that have prevented the full achievements of its objectives.

2.2.2 EQ2: External blockages

Basement assessment

In view of the effectiveness with which the ASO has achieved its key objectives, as analyzed above (Sections 2.1.1 to 2.1.6), this would suggest that there have not been any significant external blockages that have prevented the ASO from achieving its objectives.

Review findings

Interviews findings

During face-to-face interviews Reviewers received no comments regarding the effect of any external blockages that may have prevented the full achievement of any of the ASO's objectives.

Review Team findings

The Review Team did not find any relevant external blockages that may have prevented the full achievement of any ASO objective.

Review team analysis and conclusions

In consideration of the Baseline Assessment and the Findings described above, Reviewers' overall conclusion is that the ASO has not been confronted with any external blockages that have prevented the full achievements of its objectives.

2.3 Evaluative Question 3: What general or specific measures can be imagined to enhance the effectiveness of the ASO?

This section is divided into four parts:

- General measures;
- Enhancement of the Global Policy Development Process (GPDP);
- Enhancement of the ASO participation in ICANN Meetings; and
- Enhancement of the ASO website.

2.3.1 EQ3: General Measures

Basement assessment

Given the extent to which the ASO has largely achieved its key objectives, as analyzed above (Sections 2.1.1 to 2.1.6), this would suggest that there is no obvious need for general measures to improve the way the ASO functions.

Review findings

Interviews findings

Interviewees generally reported satisfaction with the way the ASO functions and were hard pressed to imagine what general improvements could be made. The response from several interviewees both from the ICANN and NRO sides was 'why try and fix a system which isn't broken'.

One member of the Address Council suggested that certain key ASO documents such as the ASO MoU, the Operations and Procedures document, the Exchange of Letters between ICANN and the NRO, and key policy documents could be translated into various other languages. This, it was suggested, would help to reinforce communication with the international community of address space users and other interested parties, as well as dispelling the notion in some parts of the world that the ASO and the ICANN system as a whole are dominated by an Anglo-Saxon, English-speaking culture.

Review Team findings

Reviewers did not identify any additional general measures that could serve to enhance the effectiveness of the ASO.

Review team analysis and conclusions

In consideration of the Baseline Assessment and the Findings described above, Reviewers support the idea that that translation of certain key documents would be beneficial to the ASO in terms of ensuring that the largest possible international

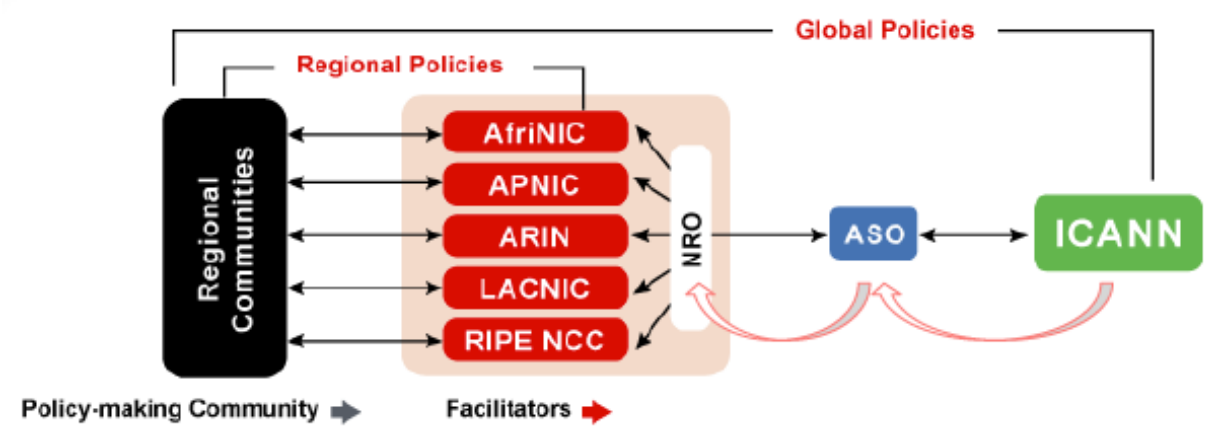
community of address space users with an interest in policy development in this area, as well as the Internet community as a whole, can easily access this information. The translation of key documents could be carried out at limited cost and would also serve to enhance perceptions of transparency and accountability.

2.3.2 EQ3: Enhancement of the Global Policy Development Process (GPDP)

Basement assessment

Global policies are defined in Section 5 of the ASO MoU as "*Internet number resource policies that have the* agreement *of all RIRs according to their policy development processes and ICANN, and require specific actions or outcomes on the part of IANA or any other external ICANN-related body in order to be implemented*".

Figure 19: RIR PDPs (Source: ASO Report, ICANN Dakar Meeting)



The basic structure of the GPDP is defined in Attachment A of the ASO MoU.

As mentioned in the Baseline Assessment above (Section 2.1.2), over the years, this basic structure has been updated and enhanced. The main additions to the process described in Attachment A of the ASO MoU are the *"[ICANN] Board's Review Procedures for Global Internet Number Resource Policies Forwarded for Ratification by the ASO Address* Council *in accordance with the ASO MoU"*, and Section 6 of the ASO AC Operating Procedures document which concerns the GPDP.

The major additions to the basic GPDP structure as described in Attachment A of the MoU can be summarized as follows:

ICANN Board's Review Procedures

- Article 3 of the ICANN Board's Procedures for Ratification states that within one day of the reception of a global policy proposal forwarded for ratification by the Address Council the Board shall request the advice of the Council on the merits of the policy. The Address Council shall provide this advice no later than 30 days before the end of the 60 days window, which the ICANN Board has to act.

ASO AC Operating Procedures

- Section 6.3 of the ASO AC OP describes the Policy Proposal Facilitator Team (PPFT), consisting of one council member from each of the regions for every global policy in process. The main role of the PPTF is to fulfill all the tasks assigned to the Address Council during the ratification phase of an active global policy proposal. However, this procedure adds to this main role an information role and a facilitation role to the PPTF during the RIR Discussion Phase of an active global policy proposal;
- Section 6.4.2 of the ASO AC OP describes the procedure when a policy proposal is submitted directly to the Address Council. This procedure states that in this case the Address Council shall determine whether the proposal meets the definition of a global policy. However, as underlined in the Baseline Assessment of Section 2.1.2 of this review, this provision is clearly not aligned with Attachment A of the MoU, insofar as the Address Council is not entitled to take any action regarding an active global policy proposal before the beginning of its Ratification Phase; and
- Section 6.4.3 of the ASO AC OP defines the procedure whereby the ICANN Board may request the Address Council to initiate a policy development process. Independently of the merits of this procedure, as discussed (Section 2.1.2, Baseline Assessment), according to Consideration 1 of Attachment A of the ASO MoU, this particular procedure needs to be mutually agreed by the NRO and ICANN.

Review findings

Interview findings

During face-to-face interviews, Reviewers did not receive specific suggestions about ways to improve the GPDP. However, as mentioned above (Section 2.1.2, Interview findings), the absence of a facilitating mechanism to resolve situations in which an agreement around the common wording of a global policy proposal has not been reached among all RIRs was widely commented on.

A number of interviewees thought it would be desirable to find a way to speed up the GPDP which typically takes around two years to complete. However, the most active GPDP participants, including RIR staff, Policy Chairs and Co-Chairs, the members of ARIN´s Advisory Council and the Councilors of the Address Council, maintained that if there is a real lack of consensus there is no obvious way to speed the process up given that a single change in one RIR obliges the four other regions to restart their PDP.

There was widespread agreement, however, that a reinforcement of the Address Council's role in deciding if a global policy proposal submitted directly to it meets the definition of a global policy would certainly help to speed the process up.

Nevertheless, there was little support for making the submission of global policy proposals directly to the Address Council mandatory. The freedom for the authors of policy proposals to choose whether to introduce their proposal at the level of one of the RIRs or directly to the ASO is, in their opinion, a necessary flexibility for a truly

bottom-up policy development process, and in view of the fact that the RIR route has worked very well up to now.

Revue Team Findings

In consideration of the findings describe above (Section 2.1.2) Reviewers considered that the description of the GPDP in Attachment A of ASO MoU needs to be updated so that it is consistent with the more comprehensive description of the GPDP in Section 6 of the ASO AC OP which empowers the Address Council to decide if a policy proposal meets the criteria to be considered as a global policy.

The empowerment of the PPFT teams with a reinforced facilitating role could be implemented by the NRO without requiring an amendment to the ASO MoU.

Review team analysis and conclusions

In consideration of the Baseline Assessment and the Findings described above, and the analysis and conclusions in Section 2.1.2, Reviewers considered that the following seven specific measures regarding the enhancement of the GPDP are needed:

- Amend Attachment A of the ASO MoU to ensure that it is consistent with the provision of the ASO AC OP that empowers the Address Council to decide whether or not a policy proposal meets the definition of a global policy;
- Empower the PPFT teams in their facilitating role as early on as possible, regardless of whether a global policy has been submitted directly to the Address Council or to one of the RIRs. This measure does not require an amendment of the ASO MoU;
- Transform the procedure of the ASO AC OP regarding the request of the ICANN Board to the Address Council to initiate a global policy development process into an agreement between ICANN and the NRO as stated in Consideration 1 of Attachment A;
- Fulfill the provision stated in Step 12 of Attachment A of the ASO MoU that states that the signatories of this MoU need to agree on a procedure on how the Address Council should deal with and engage in dialogue, as appropriate, with the ICANN Board in case that it has requested modifications to a forwarded global policy;
- Fulfill the provision stated in Step 15 of Attachment A of the ASO MoU that the signatories of the ASO MoU need to agree on a mediation mechanism in case of rejection for a second time by the ICANN Board of a resubmitted global policy;
- Insert in Section 6.1.1 of the ASO AS OP, concerning the Address Council Review Segment the fact that, with the adoption by the ICANN Board of its Procedures for the Ratification of Forwarded Global Policies, the Board is now committed to request advice from the Address Council on the merits of a forwarded global policy. Eventually, a procedure is needed also at this regard: and;
- Amend Section 6 of the ASO AC OP to incorporate Attachment A of the ASO MoU and the agreed procedures by the signatories' as prescribed in its Step 12, Step 15 and Consideration 1. As a result the GPDP would be compiled in one sole document.

2.3.3 EQ3: Enhancement of the ASO participation in ICANN Meetings

Basement Assessment

Section 5.5 of the ASO AC OP states that: *"There shall be a minimum of two (2) physical (in person) meetings per year. One will be conducted at the meeting of one of the Regional Internet Registries; the other will be conducted at a meeting of ICANN. The council may waive the requirement to conduct the physical meetings. Such a waiver shall be approved by the Executive Council of the Number Resource Organization".*

Since the Address Council was first convened at the ICANN Meeting in Los Angeles, in 1999, and according to the minutes of the meetings archived on the ASO website, Reviewers have noted that face-to-face meetings of the Address Council have been held practically every year since during ICANN meetings. These meetings have almost always been held in private.

In addition, the Address Council has organized a number of workshops during ICANN meetings. However these have not always been very well announced and often poorly attended. Since the ICANN meeting in Cartagena in December 2010, however, these workshops are organized on a more regular basis at every ICANN meeting, they are better announced and much better attended.

At the most recent ICANN meeting in Dakar, in October 2011, a new model of joint meetings of the ASO/NRO with other ICANN SOs and ACs was experimented. The ASO/NRO sent invitations to the other SOs and ACs to hold this new type of joint meetings. The GNSO, the ccNSO and the SSAC accepted this invitation, joint meetings were held, and the feedback received from these groups was generally very positive.

Review findings

Interview findings

A significant number of interviewees without a direct connection to the operation of the ASO reported a partial or complete lack of awareness regarding the activities of the ASO. Part of the reason for this, in their opinion, is that the ASO is widely perceived as an uncontroversial segment of the ICANN system which gets on with its business in a discreet but effective manner which has not required more attention from the rest of the community.

Some do consider, however, that the ASO has not been visible enough during ICANN meetings, although this situation is starting to change. Several interviewees reported that the presence of the ASO started to be felt a lot more during the ICANN meetings in Cartagena (December 2010) and San Francisco (March 2011).

Interviewees present at the ICANN meeting in Dakar (October 2011) who attended the exploratory joint meetings of the ASO/NRO with the GNSO, the ccNSO and the SSAC, welcomed this initiative and expressed the hope that similar such meetings would be held in the future. Others suggested that in due course similar meetings could be held with the ISP, Business and Non-Commercial constituencies of the GNSO.

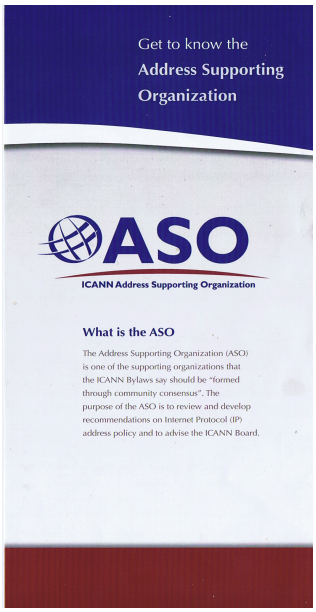
Regarding the presentation of ASO/NRO reports during the ICANN Public Forum, some interviewees, including from the addressing community, commented that it can be quite confusing for newcomers that the ASO Report is sometimes presented by the ASO Chair, sometimes by the NRO Chair, and even sometimes in tandem by both Chairs.

Survey findings

A number of survey respondents commented that the ASO/NRO workshops do not have a clear agenda. Moreover, most of them consider that presentations during workshops tend to be informational as opposed to opportunities do discuss or debate policy proposals or other issues within the ASO community. They are too flat and that they do not provide information that could easily have been obtained elsewhere.

Review Team findings

Having attended the ASO/NRO workshops during the ICANN meetings in Singapore and Dakar, Reviewers share the view expressed by a number of survey respondents that the presentations made during these meetings are too flat. Reviewers observed that workshop attendees that are not members of the addressing community are almost exclusively newcomers. Consequently, in the interests of the wider ICANN community, it would appear that there is a need to enrich the agendas of these meetings.



Reviewers received considerable positive feedback regarding the new model of ASO/NRO joint meetings with other SOs and ACs initiated at Dakar, and the proactive efforts made by the Address Council to extend invitations to the respective constituencies instead of waiting passively for people to attend their workshops. The participants in these meetings that we spoke to were enthusiastic and expressed the hope that similar such meetings would be held in the future. The quality and usefulness of the informational brochure distributed during meetings was also noted.

Review team analysis and conclusions

In consideration of the Baseline Assessment and the Findings described above, Reviewers overall assessment is that the following specific measures should be taken with a view to enhancing the perception and presence of the ASO during ICANN meetings:

- The ASO Report at ICANN meetings should always be presented by the Chair of the Address Council. The NRO should convince ICANN of the advantage of having a separate NRO Report focused on all the others NRO activities, with the exception of the ASO activities. However this issue is out of scope of this review;

- Yearly Address Council meetings held at ICANN meetings should become open to the public, at least for most of the agenda, as it is the case for the ccNSO Council, the GNSO Council and the ICANN Board;
- The agenda of the ASO/NRO workshops needs to be enriched; and
- The new model of joint meetings with other SOs and ACs should be pursued on an experimental basis, with an enriched agenda. Moreover, this new model should be also extended to some of the GNSO constituencies like the ISP, the Business and the Non-Commercials, for example. At the end of two years, the merits of this approach should be evaluated.

2.3.4 EQ3: Enhancing the ASO website

Baseline assessment

The ASO website is a third-level domain hosted under the ICANN domain. The ASO website is readily accessible via the homepage of the ICANN and NRO websites.

Over the years, since its first iteration, in 1999, the ASO website has undergone several overhauls, and Reviewers understand that a comprehensive redesign and updating of the site is ongoing.

The current website is information-rich and has a simple architecture allowing easy access to the main documents of the ASO, typically within two or three clicks of the homepage.

Review findings

Interview findings

During face-to-face interviews, few remarks were made regarding the need for specific improvements to the ASO website. It is widely seen as a simple but otherwise user-friendly portal which contains the most relevant information about the ASO, including meeting schedules, a list of current and former Council members, links to the main constituent documents, and documents pertaining to the global policies ratified by the ICANN Board.

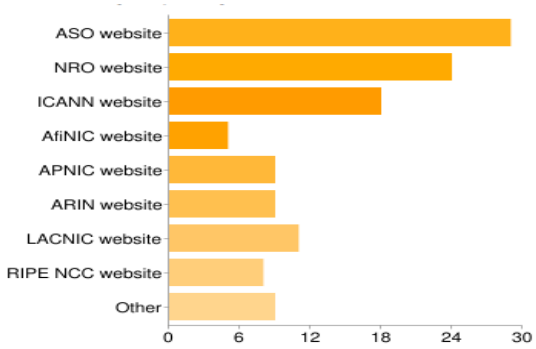
A number of Address Council members did consider, however, that some improvements could be made to boost awareness regarding the ASO within the wider Internet community. These include:

- Translating key ASO documents, most importantly the ASO MoU and policy related documents into several other international languages; and,
- Allocating more resources to the management of the site. Currently, although the site has a single administrative location its day-to-day management is the responsibility of the acting ASO secretariat. It was suggested that additional funds could be provided by the NRO to ensure a more regular and higher level of maintenance.

Survey findings

The Figures below indicate survey respondents generally have a favorable impression of the amount and quality of the information on the ASO website, which outperforms the NRO and ICANN websites as a primary source of information.

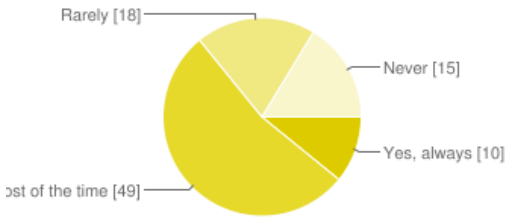
Figure 20: What are your primary sources of information about the activities of the ASO? (all respondents)



ASO website	29	64%
NRO website	24	53%
ICANN website	18	40%
AfiNIC website	5	11%
APNIC website	9	20%
ARIN website	9	20%
LACNIC website	11	24%
RIPE NCC website	8	18%
Other	9	20%

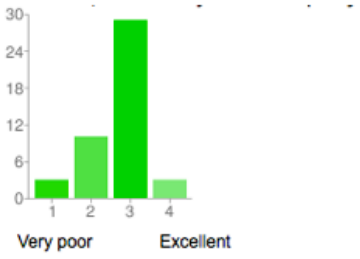
People may select more than one checkbox, so percentages may add up to more than 100%.

Figure 21: When visiting the ASO website do you usually find the information you are looking for? (all respondents)



Yes, always	10	10%
Yes, most of the time	49	51%
Rarely	18	19%
Never	15	16%

Figure 22: Overall, how would you rate the quality of the ASO website? (all respondents)



1 - Very poor	3	6%
2	10	20%
3	29	57%
4 - Excellent	3	6%

Review Team findings

Reviewers conducted an extensive content evaluation of the ASO website and concluded that it contains a significant amount of information about the origins,

purpose and functions of the ASO. However, a number of improvements could be made.

The most obvious shortcomings of the site are:

- It does not reflect the core fact that the NRO acts as the ASO;
- The pages within three mouse clicks of the home page all contain an ICANN logo whereas the NRO logo does not appear anywhere on the site. Yet, in the opposite direction, the NRO site contains links to the ASO site. The "What is the ASO" page does not contain a link to the NRO site either;
- The absence of a FAQ page in the ASO website, similar to the NRO's FAQ; and
- The fact that the History page is simply a list of documents with no linking narrative.

Reviewers carried out a technical validation of the ASO site using the W3c validators.[15]

The results of these validations may be summarized as follows:

- The W3c Mark Up Validator, which allows Internet users to check HTML and XHTML documents for well-formed mark-up, validated the ASO website and authorized it to use the W3C validation icon in the site;
- The W3c CSS Validator, which checks the Cascading Style Sheets, did not validate the ASO website due to: a) 2 errors; and b) 17 advertisements; and
- The W3C Link Checker, which checks all the links of a site, did not validate the ASO website due to a) several hundreds of permanently redirected links, which the Validator recommends to link them directly to their final location, for the sake of speed; and b) 175 broken links, including mailto links to the Address Council members, and links to key documents including several links to the ASO MoU.

Although the technical evaluation of the website highlighted several problems, Reviewers can report that these are relatively minor compared with similar technical evaluations carried out on other sites.

Review Team analysis and conclusions

In consideration of the Baseline Assessment and the Findings described above, Reviewers' overall conclusion is that the following four specific measures regarding the enhancement of the ASO website are needed:

- Redesign the site and modify the text to reflect the fact that the ASO is an ICANN Support Organization whose functions are fulfilled by the NRO;
- Creation of a FAQ page (the drafting of this FAQ page is not a website enhancement issue);
- Enhance the History page of the ASO website (again, the drafting of this History page is not a website enhancement issue); and
- Conduct regular maintenance of the site using the three W3c Validators. Upon validation post the respective W3c icons on the ASO website.

[15] W3c has several Web site validators, the most frequently used by the industry among them are: the Mark UP Validator, the CSS Validator and the Link Checker.

2.4 Evaluative Question 4: Overall, were the initiatives carried out by the ASO since its establishment consistent with its mandate as defined in the ASO MoU?

Basement assessment

The ASO MoU does not explicitly define the ASO mandate. Instead, as mentioned and described above (Sections 1.4.4 and 1.4.5), the ASO MoU clearly defines the purposes for which the ASO MoU was established (Section 2) and the organizational roles for which the Address Council is responsible (Section 3).

It is apparent, however, that these three purposes are not necessarily synonymous with the purposes of the ASO itself. Also, as reported, this assignment of responsibilities to the Address Council does not mean that all the functions related to these organizational roles are necessarily fulfilled by the Address Council itself. As noted, some of these functions are fulfilled by the NRO EC.

In these circumstances, Reviewers' assessment of this evaluative question is that the mandate of the ASO as defined by the ASO MoU is to be considered as an overall mission including both the purposes for the establishment of the ASO MoU and the organizational roles for which the Address Council has responsibility. This approach is similar to the one followed in Section 2.1 above to identify the ASO's key objectives.

Review findings

Interview findings

As reported above (Sections 2.1.1 to 2.1.6), interviewees that are directly or indirectly involved in the carrying out of the organizational roles enumerated in Section 3 of the ASO MoU concurred that the ASO has performed these tasks in a highly effective manner. Not a single comment was made suggesting that the ASO has carried out activities that are inconsistent with its mandate.

Conversely, those not involved in the carrying out of these organizational roles were not so affirmative regarding the effectiveness of the ASO in performing these tasks, given their lack of knowledge in this regard. However, they were of the opinion that the ASO has carried out its activities in a manner that is consistent with its mandate.

Review Team findings

Having closely examined the three purposes enumerated in Article 2 of the ASO MoU, Reviewers' appraisal is that the ASO has conducted its business in a manner that is entirely consistent with its mandate.

Additionally, as discussed at length (Sections 2.1.1 to 2.1.6), Reviewers' overall assessment regarding the five organizational roles under the Address Council's responsibility is that the ASO has fulfilled all these roles in an entirely effective manner. Reviewers could not identify a single action undertaken by the ASO that could be perceived to be inconsistent with its mandate.

Review team analysis and conclusions

In consideration of the Baseline Assessment and the Findings described above, Reviewers' assessment is that all the initiatives carried out by the ASO have been entirely consistent with its mandate as defined in the ASO MoU.

2.5 Evaluative Question 5: What are the ASO members' understandings of the mandate of the ASO?

Baseline assessment

The members of the ASO are the Councilors that make up the ASO Address Council.

Reviewers note that this is not the case in the other two ICANN Supporting Organizations. In the case of the ccNSO, Section 4 of Article IX of the ICANN Bylaws, states that the *"ccNSO shall have a membership consisting of ccTLD managers. Any ccTLD manager that meets the membership qualifications stated in paragraph 2 of this Section shall be entitled to be members of the ccNSO"*. In the case of the GNSO, the Bylaws describe the organizational structure of the GNSO in Article X Section 2, and the composition of the GNSO Council.

Consequently, unlike the ccNSO and the GNSO which are made up of governing Councils and large memberships made up, respectively, of the international community of country code registries and of the contracted and non-contracted parties of the generic top level domains industry, the ASO is a stand-alone body whose only members are its fifteen Councilors.

Review findings

Interview findings

Reviewers interviewed almost all current members of the Address Council, some former members and certain newly elected members. Interviewees showed that they have a precise and fairly consistent understanding of the ASO's mandate in general and the Address Council's responsibilities in particular, namely to formally check that for every global policy proposal the PDP in each RIR has been duly followed and that a common wording has been reached, before forwarding the proposal to the ICANN Board for ratification. Subsequently, the ASO AC is required to provide advice, upon request, to the ICANN Board on the merits of the forwarded global policy proposal.

Given their personal experience, usually as Policy Chairs (in the case of RIPE, APNIC, AfriNIC and LACNIC regions) or members of the Advisory Council of ARIN, the members of the Address Council are very familiar with the bottom-up PDPs and are often personally acquainted with the authors of the global policy proposals that they have to process. To this extent, they are in favor of the role of PPFT, particularly if the Facilitator role is reinforced.

Regarding the provision of advice to the ICANN Board on policy issues that are not related to global policy proposals they are aware that the Address Council can, in theory, be solicited in this regard, as specified in the ASO MoU, but they have never

received such a request. Moreover, they consider that they are neither encouraged by their respective RIRs nor by the NRO Executive Council to do anything in this regard. However, many feel that they have the experience and legitimacy to advise the ICANN Board on any addressing policy issue, and would welcome the opportunity to do so.

In particular, they share, with other members of the addressing community and even certain members of the ICANN community, the opinion that the ICANN Board could have requested their advice in the past, and should be encouraged to do so in the future, either directly or indirectly through the NRO EC, on issues such as:

- Actions to be considered in ICANN's Operational Plan regarding IPv6 deployment, given its high priority in the Strategic Plan;
- The requirement for IPv6 compliance for registrars in the framework of their RAA;
- The requirement for IPv6 compliance for gTLD applicants in the Applicant Guidebook; and
- ICANN's role as an eventual Global Anchor Trust in RPKI.

Address Council members are fully aware that the Council is responsible for establishing a complete set of procedures in connection with the appointment of individuals to serve on ICANN bodies and the conducting of ASO's business.

Finally, Address Council members are fully aware that the Address Council has to appoint individuals to various ICANN bodies, including two Board Directors, one NomCom member and a member in each of the AoC Review Teams.

Review Team findings

Reviewers' appraisal regarding the members of the Address Council's understanding of the ASO mandate is that they have a thorough understanding of the organizational roles under the Council's responsibility.

Reviewers did note, however, that Address Council members' understanding of the mandate of the ASO is not entirely homogenous. Although the differences of appreciation are slight, there are clearly those, on one hand, who adhere to a strict interpretation of the wording of the ASO MoU, limiting the scope for action of the Address Council to tasks specifically linked to the forwarding to the ICANN Board global policy proposals for review and ratification and those, on the other, who are content with a looser interpretation of the MoU, allowing more flexibility to engage in other policy related issues.

Review team analysis and conclusions

In consideration of the Baseline Assessment and the Findings described above, Reviewers' overall assessment is that the members of the Address Council have a broad understanding of the mandate of the ASO, without which it would certainly not have been as effective as it has been in fulfilling the organizational roles assigned to it.

2.6 Evaluative Question 6: What are the understandings of other Supporting Organizations and Advisory Committees of the mandate of the ASO?

Baseline assessment

To correctly assess this question it should be pointed out, as described above (Section 1.4.2), that the obligation of the SOs and ACs to coordinate with each other is not reciprocal. While the ICANN Bylaws clearly state that the ccNSO has to coordinate *"with other ICANN Supporting Organizations, committees, and constituencies under ICANN"*, this provision is not explicitly mentioned for all the others SOs and ACs. In particular, in the case of the ASO there is no explicit or implicit requirement to this effect in the Bylaws.

In addition, as mentioned and analyzed above (Section 2.4), the mandate of the ASO MoU is not explicitly defined in the ASO MoU.

Review findings

Interview findings

Interviews were conducted with the Chairs and several Council members of the other ICANN SOs and ACs. With the exception of the representatives of the SSAC who were generally well-informed regarding of activities and achievements of the ASO, interviewees from the other SOs and ACs admitted a considerable lack of awareness regarding the mandate of the ASO.

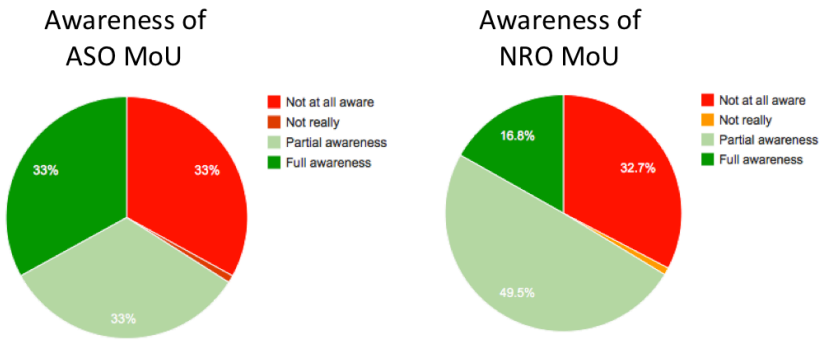
The representatives of the SSAC in particular, and the other SOs and ACs in general were enthusiastic about the recent initiative undertaken by the ASO to reinforce cross-community interaction, notably via the joint-meetings mechanism as experimented during the ICANN meeting in Dakar.

Survey findings

As shown in Figure 8 above, whereas 60% of survey respondents who identified themselves as members of one of the other SOs or ACs have a positive perception regarding the effectiveness of the ASO in the accomplishment of its key objectives, this still leaves 40 % who report having a lack of knowledge in this respect.

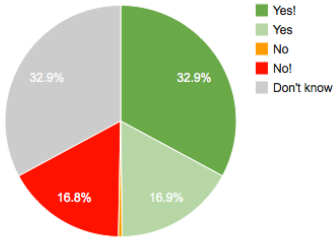
The figures below show that there is very even split between the representatives who consider that they have a very good understanding of the existence and content of the ASO MoU, those who only have a partial awareness and those who have no awareness at all.

Figure 23: Awareness of other ICANN SOs and ACs of the ASO MoU and the NRO MoU



Perceptions of the other SOs and ACs regarding the effectiveness of the ASO in achieving it objectives as defined by the ASO MoU are fairly positive with 50% considering that the ASO has been either very or fairly effective. On the other hand close to 33% declare not knowing and a significant 17% consider that is has not been at all effective.

Figure 24: Has the ASO been effective in achieving its objectives as defined in the ASO MoU?



Review team findings

Reviewers observed that there is a considerable lack of understanding among the representatives of the other ICANN SOs and ACs regarding the ASO´s mandate, in particular regarding the differences between the mandates of the three SOs. In addition, they are unaware of the fact that in the ASO mandate there is no obligation at all to coordinate with the others ICANN's SOs and ACs.

Review team analysis and conclusions

In consideration of the Baseline Assessment and the Findings described above, Reviewers overall conclusion is that the other SOs and ACs generally have a poor understanding of the mandate of the ASO. To this extent, the following actions seem to be needed:

- The mandate of the ASO is well understood within the ASO/NRO but not so well within the wider ICANN community. For the benefit of the wider community it would be useful to have a clearer definition of the mandate of the ASO; and
- ICANN and the ASO should be more proactive to ensure that the other ICANN SOs and ACs have a better understanding of the ASO mandate. In this regard an ASO FAQ (as recommended) would certainly help to improve awareness.

2.7 Evaluative Question 7: Does the ASO have a continuing purpose in the ICANN structure?

Baseline assessment

As discussed above (Section 1.4.4) the ASO MoU does not define the purpose of the ASO. Instead it defines the purposes for the establishment of the ASO MoU. Hence, in order to address this question, Reviewers decided to assimilate the purpose of the ASO with the three purposes for which the ASO MoU was established, as stated in Section 2 of the MoU, i.e.:

- Defining the roles and processes supporting global policy development, including the relationship between the Internet addressing community (represented by the NRO) and ICANN within the operation of this process;
- Defining mechanisms for the provision of recommendations to the Board of ICANN concerning the recognition of new RIRs; and
- Defining accessible, open, transparent and documented procedures for the selection of individuals to serve on other ICANN bodies, including the selection of ICANN Directors and the selection of members of various standing committees and ad hoc ICANN bodies.

These purposes are clearly associated with the prevailing institutional global regime of allocation of IP addresses, which assigns to ICANN/IANA the right to allocate addresses to the RIRs, while the RIRs are entitled to manage the allocation of IP addresses at regional and sub-regional levels.

In addition, it should be underlined that the ASO is not an organization as such within the ICANN structure; rather it is a set of functions fulfilled by the NRO, an organization associated with ICANN without being a fully-fledged part of it.

In these circumstances, Reviewers considered that this evaluative question regarding the continuing purpose of the ASO should be addressed in relation to the ICANN ecosystem rather than to the ICANN structure.

Review findings

Interview findings

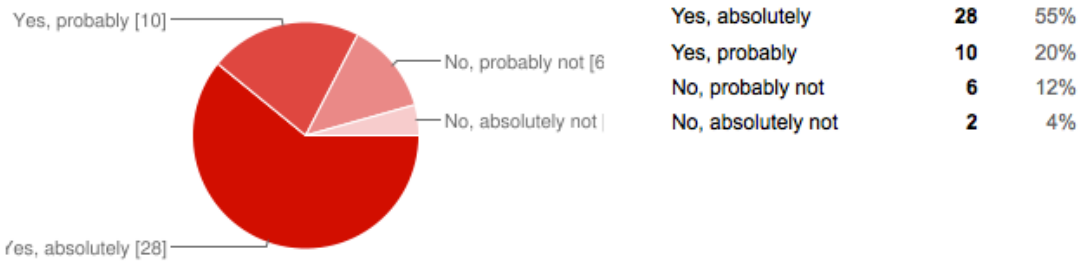
During face-to-face interviews, Reviewers did not receive any particular feedback putting into question the continuing purpose of the ASO in the ICANN ecosystem.

However, a large number of interviewees did express the need to update and/or clarify the current ASO MoU. No suggestions were made regarding the need to change the basics of the ASO MoU.

Survey findings

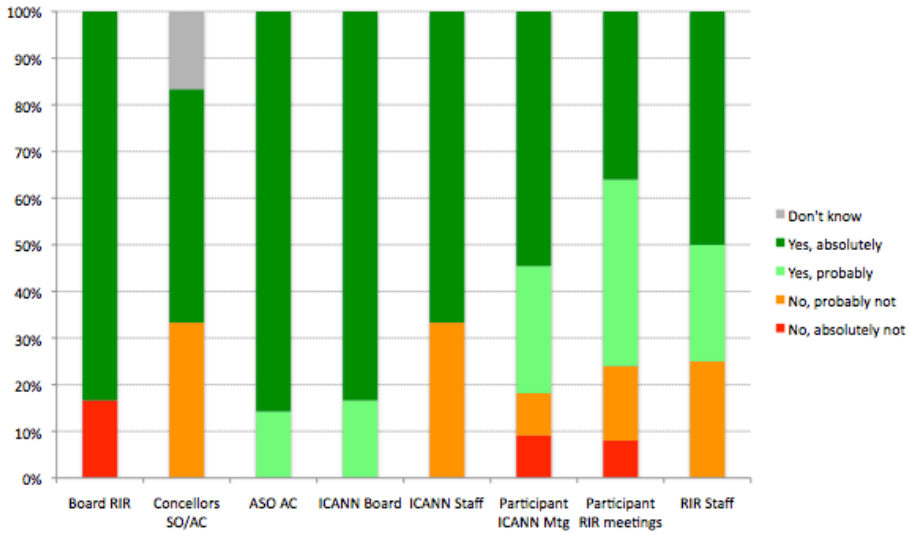
As shown in Figure 22, a majority of respondents (75 %) consider that the ASO has a continuing purpose in the ICANN structure.

Figure 25: Does the ASO have a continuing purpose within the ICANN structure? (all respondents)



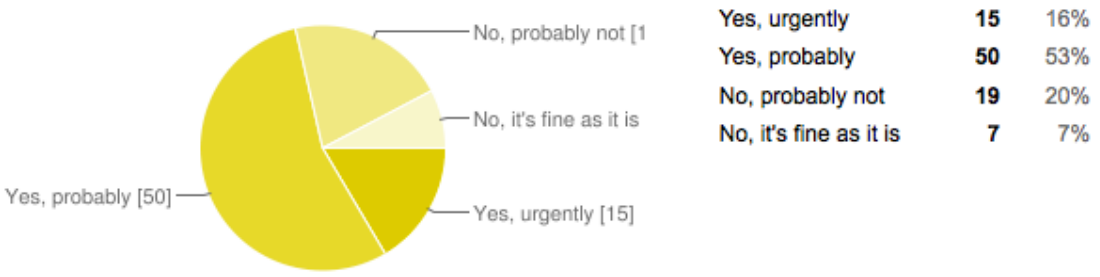
Differences between respondent categories are, again, marked with Address Council members and ICANN Board members, expressing full confidence. The groups expressing least confidence regarding continuing purpose of the ASO are the Councilors of the other SOs and ACs and ICANN Staff.

Figure 26: Does the ASO have a continuing purpose within the ICANN system? (results per respondent affiliation)



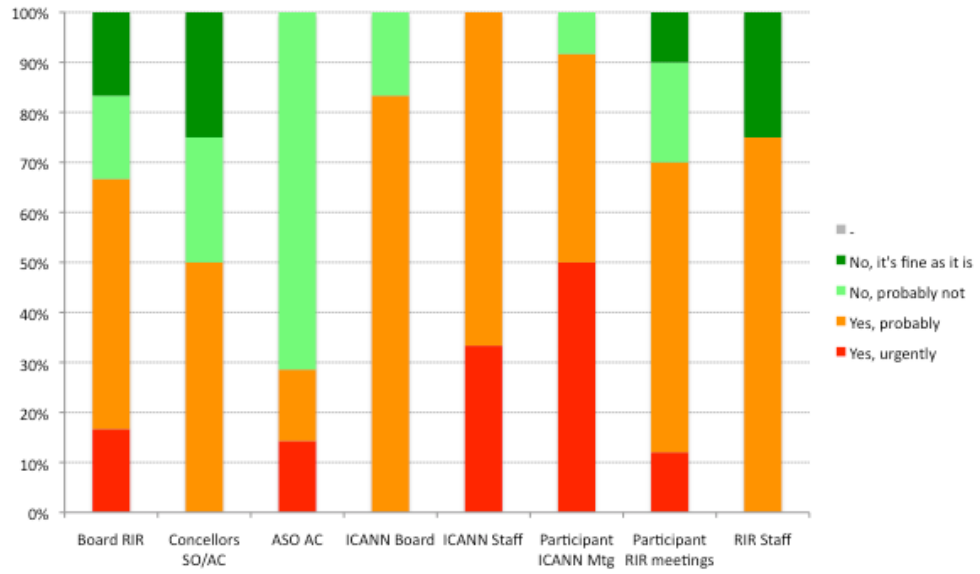
However, as shown in Figure 27 below, 69 % of respondents, (a rate that is consistent with the comments received by the Review Team during interviews), consider that there is a need to clarify or update the ASO MoU.

Figure 27: Do you think the ASO MoU needs to be clarified or updated? (all respondents)



The breakup of this 67 % in favor of the need to update or clarify the ASO MoU is not evenly distributed among the different respondent affiliations. As shown in Figure 28, the respondent category that least perceives the need to modify or update the MoU is the ASO AC itself. The categories that most perceives the need to update it are ICANN staff, the ICANN Board and ICANN meeting participants.

Figure 28: Do you think the ASO MoU needs to be clarified or updated? (results per respondent affiliation)



Review Team findings

In this context, in response to the question as to whether the ASO has a continuing purpose in the ICANN ecosystem, Reviewers considered the three purposes for which the ASO MoU was established. Our assessment is as follows:

- Regarding the roles and processes supporting global policy development, Reviewers assessed that within the prevailing global regime regarding the allocation of IP addresses the mechanisms in place are optimal. Hence, the ASO's continued purpose in this regard is beyond question;

- Regarding the definition of a mechanism for the provision of recommendations to the Board of ICANN concerning the recognition of new RIRs, the Revue Team appraisal is that even if the ASO has not yet defined this mechanism its existance is inherent to the application of ICP-2 Policy. Consequently, in as much as ICP-2 Policy is not amended radically, the ASO's continued purpose in this regard is beyond question; and
- Regarding the selection of individuals to serve on ICANN bodies, including the ICANN Board, Reviewers consider that the mechanisms in place correspond to the basic rights of representation of the RIRs as ICANN stakeholders. Consequently, insofar as this stakeholder character is preserved, the continuity of this purpose is also beyond question.

Revue Team analysis and conclusions

In consideration of the Baseline Assessment and the Findings described above, Reviewers overall conclusion is that the ASO undoubtedly has a continuing purpose in the ICANN ecosystem.

Notwithstanding, a number of clarifications to the ASO MoU seem to be needed. In particular, the ASO MoU should spell out clearly the puposes of the ASO rather than the purposes for the establishment of the ASO MoU. These clarifications should be undertaken together with other clarifications outlined in various sections of this review.

2.8 Evaluative Question 8: Does the rationale for the ASO as spelled out in the ASO MoU need to be revised, and in which sense?

Baseline assessment

The ASO MoU does not unequivocally spell out the rationale supporting it. As mentioned and described above (Sections 1.4.4, 2.4 and 2.7), the ASO MoU explicitly details the purposes for which the ASO was established but not its rationale.

Whatever this rationale was, it appears that it was not necessarily the same for both signatories of the ASO MoU. Moreover, it did not precisely reflect the purposes they had to establish this MoU.

It seems clear that the rationale is intrinsically linked to the prevailing institutional global regime for the allocation of IP addresses, which assigns to ICANN/IANA the right to allocate addresses to the RIRs, while the RIRs are entitled to manage the allocation of IP addresses at a regional and sub-regional level.

Reviewers' understanding is that the legitimacy of this global regime is to some extent associated with the assignment by the US Department of Commerce to ICANN of the IANA addressing function, but certainly not only to it. Of course, the analysis of any change in the prevailing global regime of the allocation of IP addresses would be speculative and beyond the scope of this review.

In these circumstances, Reviewers consider that this evaluative question would be better rephrased as: Does the rationale supporting the current structure of the ASO need to be revised and, if so, in which sense?

Review findings

Interviews findings

During interviews, Reviewers did not receive any particular feedback regarding the need to revise the rationale supporting the current structure of the ASO.

Importantly, interviewees that expressed the need to update and clarify the current ASO MoU are by no means in favor of revising the rationale supporting it.

However, Reviewers received contradictory feedback regarding the rationales for the ASO as expressed by ICANN and the NRO. The need to write a duly documented history of these rationales was also expressed.

Review Team findings

Without speculating about eventual changes in the prevailing global regime for the allocation of IP addresses, the Review Team did not find any reasons why either ICANN or the NRO should revise their respective rationales for supporting the current structure of the ASO.

Revue team analysis and conclusions

In consideration of the Baseline Assessment and the Findings described above, Reviewers' overall conclusion is that there is no obvious need to revise the rationale supporting the current structure of the ASO.

However the Review Team shares the view that it may be helpful to write a documented history of the respective rationales of ICANN and the NRO.

3 Functioning of the ASO

This section addresses the last four evaluative questions as listed in the ASO Review RFP. Insofar as it is possible and relevant, each question is addressed using, the same three-part structure:

- **Baseline Assessment:** Reviewers' understanding of the question to be answered;
- **Review Findings:** Presentation of relevant findings accumulated during review process - facts, appraisals, opinions, evaluations, suggestions, etc. These section are further subdivided with: Interview Findings, Survey Findings and Review Team Findings; and
- **Review Team analysis and conclusions:** Summary of Reviewer's answer to the question.

3.1 Evaluative Question 9: Does the ASO operate in an accountable and transparent way? Are there any changes to the ASO's ways of operating that might enhance its accountability and transparency?

Baseline assessment

In order to adequately address these questions it is necessary to clearly identify the audiences to which the ASO should be held accountable and transparent and the standard of accountability and transparency that is expected.

The issue here is the accountability and transparency of the ASO, not of the NRO, nor of the RIRs.

As far as assessing the accountability and transparency of the ASO is concerned Reviewers considered that the following four audiences needed to be distinguished:

- ICANN and the NRO, representing the RIRs, including their respective staffs and Boards, in their capacity as signatories of the ASO MoU;
- The ICANN community
- The RIR's addressing communities; and
- The global Internet community.

Accountability and transparency are largely a matter of expectation. In order to be fully accountable and transparent to a particular audience an organization should clearly announce what information is disclosed and where it is made available. Neither the measures of accountability and transparency nor are their respective levels of exigency the same for each audience.

Measures of ASO accountability and transparency varies for the four groups:

- For ICANN and the NRO, the measures of the ASO's accountability and transparency are the operational procedures, the minutes of meetings of the Address Council, the reports that accompany the forwarding global policies to the ICANN Board, the reports advising the ICANN Board on the merits of

forwarded policies, and the news regarding the selection of individual to sit in ICANN bodies;

- For the ICANN community, the measures of the ASO's accountability and transparency are the ASO Reports at ICANN meetings, the ASO workshops at ICANN meetings, the joint meetings of the ASO with SOs and ACs at ICANN meetings, and the ASO web site;
- For the RIR's communities, the measures of the ASO's accountability and transparency are the ASO Reports at RIRs' meetings and the ASO web site; and
- For the global Internet community, the measure of the ASO's accountability and transparency is the ASO website.

Regarding the standard of accountability and transparency to be used, in principle it should be the ICANN *Accountability & Transparency Frameworks and Principles*, a document adopted in 2008.[16] However, with the signing of the Affirmation of Commitments, in 2009, a new scenario appeared insofar as ICANN committed itself to conducting periodic reviews of four key objectives, one of which is precisely the Accountability and Transparency Review. The Accountability and Transparency Review Team (ATRT) issued its first periodic final report in December 2010.[17] In it the ATRT submitted twenty-seven recommendations to the ICANN Board, which are currently being implemented.

Finally, it should be noted that in these documents accountability and transparency appear as two inextricably intertwined goals. To this extent, they were analyzed together.

Review findings

Interview findings

During face-to-face interviews, Reviewers had the opportunity to discuss these issues with individuals from the four main audiences, with the sole exception of the at large Internet community.

Interviewees from the ICANN or RIR staff directly or indirectly involved with the function and operations of the ASO, as well as Board members of ICANN or the RIRs did not mention any problems in terms of the accountability and transparency of the ASO. They have the perception that organizational matters such as the appointment of the Chair, take place in an open and transparent manner. They know where to find relevant documentation concerning the ASO and appreciate its content.

Interviewees from the addressing community not involved in the GPDP expressed their satisfaction with the ASO Reports presented at RIR meetings and feel that they know as much as they need.

Conversely, within the wider ICANN community, interviewees without a direct connection to the function and the operation of the ASO generally expressed a certain lack of knowledge of what the ASO is or does. They did not make any specific

[16] ICANN Accountability & Transparency Frameworks and Principles: http://www.icann.org/en/transparency/acct-trans-frameworks-principles-10jan08.pdf
[17] Final Recommendations of the Accountability and Transparency Review Team: http://www.icann.org/en/reviews/affirmation/atrt-final-recommendations-31dec10-en.pdf

complaints about the lack of accountability and transparency of the ASO, although there were issues such as the distinction between the functions fulfilled by the NRO EC or by the Address Council that a number of interviewees felt could be clarified.

In addition, as mentioned above (Section 2.3.3), some interviewees from the ICANN community expressed their concern regarding the fact that at ICANN meetings the ASO Report is presented by the Chair of the Address Council, sometimes by the Chair of the NRO and even sometimes by both of them in tandem.

Survey findings

As shown in Figure 29 below, 59 % survey respondents expressed satisfaction with the level of accountability and transparency shown by the ASO, while a significant 31 % expressed their dissatisfaction.

Figure 29: Would you say that the ASO functions in a fully transparent and accountable way? (all respondents)

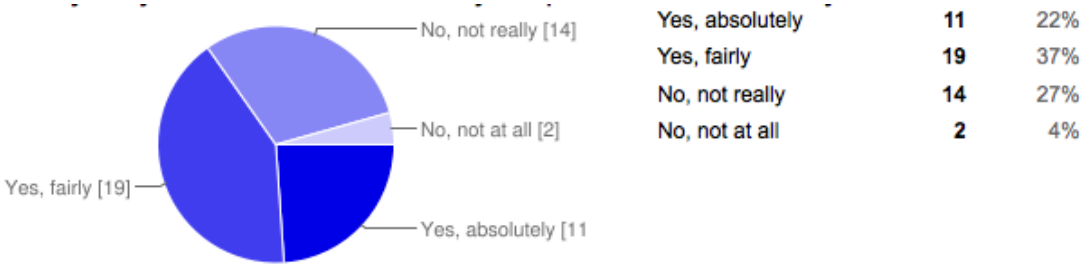
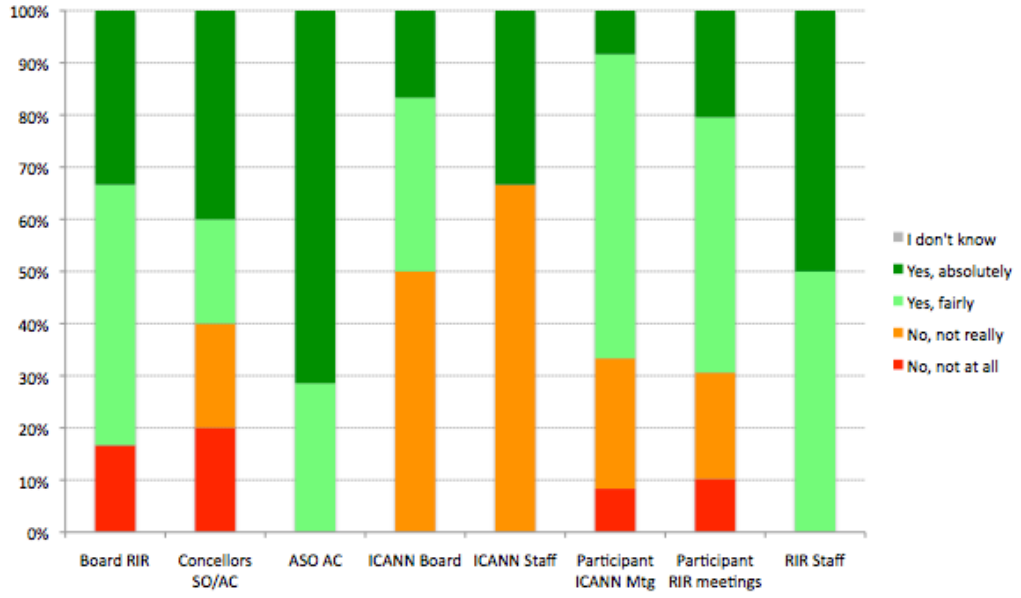


Figure 30: Would you say that the ASO functions in a fully transparent and accountable way? (results per respondent affiliation)



Revue Team findings

As mentioned and described above (Sections 2.1.4 and 2.1.6), Reviewers examined the ASO AC OP developed by the Address Council, and concluded that it is a complete, comprehensive and transparent set of procedural guidelines. Moreover, it was observed that the ASO's procedures are conducted in conformity with these guidelines. In addition, Reviewers examined the minutes of the Address Council meetings and the reports of the Address Council drafted in the framework of the GPDP, concluding that they are accurate and consistent documents. To this extent, the Reviewer's appraisal is that the ASO functions in a fully accountable and transparent to the signatories of the ASO MoU.

Reviewers attended the meetings of the five RIRs and two ICANN meetings during which the ASO Reports were presented. They also examined the slide presentations of successive ASO Reports over the years, concluding that they are accurate and consistent presentations that provide information to the audiences to which they are delivered in a fully accountable and transparent manner.

Regarding the extent to which the global Internet community is informed through the ASO website, Reviewers' appraisal is that this site, even without the suggested improvements provides information to this audience in a sufficiently accountable and transparent manner.

Reviewers did notice, however, that in its meeting, in January 2010, the ICANN Board requested that all Supporting Organizations and Advisory Committees, and the Nominating Committee, provide the Board with initial input on the ATRT Report. The ASO has apparently not yet reacted to this request.

In consideration of the Baseline Assessment and the Findings described above, Reviewers' overall conclusion is that the ASO operates in fully accountable and transparent way towards to each of these four audiences.

Notwithstanding, the Review Team considers that the following three measures should be adopted with a view to enhancing accountability and transparency:

- At ICANN meetings the ASO Report should systematically be presented by the Chair of the Address Council;
- Moreover, it would be better if an NRO Report is presented in parallel by the NRO EC;
- The recommended FAQ page on the ASO website, as discussed in Section 2.3.4 should explain how the ASO functions in a way which is accountable and transparent towards the global Internet community; and
- The ASO, through the NRO EC, should respond to the ICANN Board request regarding the ATRT Report as soon as possible. This response should emphasize the ASO's strong commitment to the principles and views supported by this report.

3.2 Evaluative Question 10: Are the ASO's internal working mechanisms suitable and sufficient to guide all the aspects of its present work?

Baseline assessment

The ASO´s internal working mechanisms to guide all the aspects of the ASO work are described in detail in the Operational Procedures of the Address Council (ASO AC OP).

Review findings

Interview findings

During face-to-face interviews, Reviewers did not discern any particular concern regarding the suitability and the sufficiency of the mechanisms established by these procedures.

Review Team findings

As mentioned and described at length above (Sections 2.1.4 and 2.1.6), Reviewers' overall assessment in this regard is that these mechanisms are well-suited to conducting the business of the ASO.

Notwithstanding, a number of improvements to these procedures, also mentioned above, are needed.

Review team analysis and conclusions

In consideration of the Baseline Assessment and the Findings described above, Reviewers' overall conclusion is that the ASO's internal mechanisms are suitable and sufficient to guide all aspects of its present work.

3.3 Evaluative Question 11: Has the ASO had the resources necessary to accomplish its tasks?

The ASO MoU states in its Article 3 Section 2 that no "*member of the Address Council shall receive any compensation for his or her services as a member of the Address Council. Address Council members shall, however, at their request, be reimbursed by the NRO for actual, necessary, and reasonable travel and subsistence expenses incurred by them in the performance of their duties.*"

In this context, the ASO AC OP states in its Article 5.5 that there "*shall be a minimum of two (2) physical (in person) meetings per year. One will be conducted at the meeting of one of the Regional Internet Registries; the other will be conducted at a meeting of ICANN. The council may waive the requirement to conduct the physical meetings. Such a waiver shall be approved by the Executive Council of the Number Resource Organization. In addition, if needed, the NRO reimburses the travel and subsistence expenses of the Chair or Vice Chair to all ICANN meetings.*"

The ASO MoU also states (Article 4) that the "*NRO will provide all Secretariat services to support functions described by this agreement*." In practice, the main activities of the ASO Secretariat are: the management of teleconferences and physical meetings of the Address Council, the drafting of the minutes of the Address Council meetings, the management of workshops organized by the Address Council, the management of the election process of ICANN Board Directors and maintenance of the ASO website. The functioning of the ASO Secretariat is assumed by the NRO Secretariat, in accordance with Article VIII of the NRO MoU, which states that the "*operation of NRO Secretariat shall rotate on an annual basis amongst the RIRs unless the NRO Executive Council unanimously directs the hiring of a professional staff at a fixed or changing location*".

Reviewers considered that this evaluative question is not related to the on-going discussion within ICANN regarding the relative contribution of the ccTLDs, the gTLDs and the RIRs to the ICANN Budget. Indeed, these contributions to the ICANN Budget are not paid directly by the respective Supporting Organizations but by the ccTLDs, the gTLDs registries and registrars and the NRO. Consequently, this issue is out of scope for this review.

Interviews findings

Whereas most interviewees considered that the NRO's contribution to the ICANN budget is quite fair, Reviewers did not really received strong feedback regarding the formal question raised.

However, Address Council members unanimously expressed their satisfaction with the tasks fulfilled by the ASO Secretary, indistinctly of the particular RIR that provides this service.

Review findings

Review Team findings

Reviewers examined closely the tasks fulfilled by the ASO Secretariat over the years and its appraisal is that, independently of the particular RIR in charge of them, an outstanding job has been accomplished.

Reviewers' appraisal is that the effectiveness with which the ASO has achieved its key objectives, as analyzed in Sections 2.1.1 to 2.1.6, would not have been achieved if the NRO had not provided the financial support to help this to happen

Review team analysis and conclusions

In consideration of the Baseline Assessment and the Findings described above, the overall conclusion of the Reviewers is that definitively the ASO has received from the NRO the resources needed to accomplish its tasks.

3.4 Evaluative Question 12: Are there regular and suitable communication and collaboration mechanisms in place between the ASO and other ICANN Supporting Organizations and Advisory Committees?

Baseline assessment

To make a correct assessment of this question, it should be noted, as mentioned and described above (Section 2.6), that the ASO is not formally mandated to interact with other SOs and ACs.

Review findings

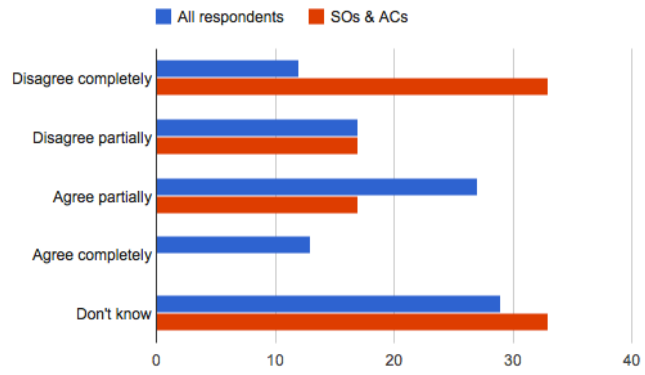
Interview findings

Almost without exception, the representatives of the other SOs and ACs admitted a certain lack of knowledge regarding the precise role, functions and achievements of the ASO within the ICANN system. However, for the most part, they were of the view that this was probably due to a less contentious nature of the policy issues surrounding numbering as opposed to the naming policy issues. Generally speaking, there is a perception among interviewees from other SOs and ACs that the ASO functions in an inconspicuous but nonetheless effective manner according to its mandate.

Survey findings

As shown in Figure 31 below, contrary to the opinion generally expressed in interviews, there are slightly more that than half of respondents who agree that there is a regular and productive interaction between the Address Council and the other SOs and ACs than those that disagree.

Figure 31: Interaction between the Address Council and the other ICANN Supporting Organization and Committees are regular and productive.



Review Team findings

Reviewers examined the agendas and slide presentations, when available, of workshops and public meetings of the Address Council held at ICANN Meetings over the years, concluding that there are no mechanisms in place to ensure regular and productive interaction between the Address Council and the other ICANN SOs and ACs.

Reviewers attended the workshops held during the ICANN meetings in Singapore and Dakar by the ASO/NRO as well as the joint meetings between the ASO/NRO and the SSAC held at Dakar. Reviewers' appraisal is that this new model of interaction is better suited to enhancing the level of interaction with the other SOs and ACs.

Review team analysis and conclusions

In consideration of the Baseline Assessment and the Findings described above, Reviewers' overall conclusion is that there are currently no mechanisms in place to ensure regular and productive interaction between the Address Council and the other SOs and ACs.

Reviewers consider that it is in the ASO's interests, not to mention ICANN's wider interest, to maintain regular contacts with the other ICANN SOs and ACs. One of the most obvious ways this can be done is through the organization of meetings with the other SOs and ACs during ICANN meetings. At the very least, the ASO should ensure that its own meetings are open to the rest of the community.

The value of holding regular meetings with the other SOs and ACs was carefully weighed up by Reviewers and our conclusion is that while beneficial, and greatly appreciated by those who took part in the meetings in Dakar, there is no compelling reason why these should be held on a fixed or permanent basis. Regular communication with the other SOs and ACs, on the other hand, should certainly be reinforced, especially in the run up to ICANN meetings, and if it appears that there are matters of common interest then a joint meeting should be convened. Our view is that meetings of this kind are a good thing and contribute to reinforcing ICANN's multi-stakeholder governance model, but that they should not be imposed as a matter of course.

4 Review Team Recommendations

This section lists the recommendations made in Sections 2 and 3 of this review, in response to the twelve Evaluative Questions of the ASO Review RFP.

Recommendations are grouped into eight categories: (i) Clarification and updating of the current ASO MoU; (ii) Global Policy Development Process (GPDP); (iii) Presence of the ASO at ICANN meetings; (iv) Enhancements to the ASO website; (v) ASO Procedures; (vi) Recommendations to the ICANN Board; (vii) Recommendations to the NRO Executive Council; and (viii) Joint Recommendations to the ICANN Board and the NRO Executive Council.

4.1 Recommendations regarding clarifications and updates to the ASO MoU

The two recommendations in this section require an amendment of the ASO MoU and will need to be mutually agreed by both signatories of the ASO MoU to be implemented. They do not constitute profound changes to the MoU and, in principle, should not require any modification of ICANN Bylaws.

Recommendation 1: Clarify the purpose, mandate and objectives of the ASO and distinguish between the ASO functions to be undertaken by the Address Council and those to be undertaken by the NRO Executive Council

The need to clarify the purpose, mandate and objectives of the ASO stems from the fact, as discussed in Sections 1.4.4, 1.4.5, 2.1, 2.5, 2.6, 2.7 and 2.8, that the ASO MoU, defines the purposes of the ASO MoU (as opposed to the purposes of the ASO itself), and the organizational roles which are the responsibility of the Address Council. These clarifications should consist in a rewording of Sections 2 and 3 of the ASO MoU.

Clarifications regarding the identification of the ASO functions undertaken, respectively, by the Address Council and the NRO Executive Council undertaken, respectively, by the Address Council and the NRO Executive Council are intended to make the allocation of responsibilities within the ASO much more explicit. As discussed in Sections 1.4.5, 2.1 and 2.1.2 to 2.1.6, Reviewers' understanding of the main functions of the ASO and the related responsibilities of the Address Council or NRO EC, according to the current wording of the ASO MoU, and the way these have been interpreted over the years, are as follows:

- To forward global addressing policy proposals to the Address Council, after verifying that they have been adopted in the five RIR regions with a common wording. This function is fulfilled by the NRO Executive Council, which if a global policy fails to reach a common wording, will ask the RIRs Policy Managers to try to fix the problem. If they fail to do so, the global policy will be sent back to the RIRs. It should be noted that this function operates in exactly the same way in iterations when a global policy has been objected or rejected by the ICANN Board;
- To forward global policy proposals to the ICANN Board, after checking that the respective PDP at every RIR has been duly followed and that a common wording has effectively been reached. This function is fulfilled by the Address Council, which after verification will, depending on the outcome, either send the global policy back to the NRO Executive Council or forward it to the ICANN Board for ratification;

- To provide advice to the ICANN Board on the merits of a forwarded global policy. This function should be fulfilled by the Address Council;
- To coordinate actions in case that the ICANN Board objects or rejects a forwarded global policy. This function should be fulfilled also by the Address Council. In fact, this function operates exactly in the same way as new global policy proposals. However, the outcomes of these iterations would be: to send back to the ICANN Board agreed answers by all the RIRs to objected global policies, to forward a new global policy in replacement of a rejected policy, or to resubmit the same rejected policy;
- To provide advice to the ICANN Board regarding the recognition of new RIRs. To the extent that this advice is not a global policy in process, this function should be fulfilled by the NRO Executive Council;
- To provide advice to the ICANN Board, upon request, on policy issues relating to the operation, assignment, and management of Internet addresses other than global addressing policies. To the extent that this advice is also not related to global policies in process, this function should also be fulfilled by the NRO Executive Council. Notwithstanding, the NRO Executive Council may require to the Address Council in its Number's Council capacity to provide this advice;
- To select individuals to sit in various ICANN bodies, including currently two ICANN Board members, one NomCom member and four AoC Review Team members This function should be fulfilled by the Address Council; and
- To develop Procedures and Mechanisms for conducting all these functions. These procedures should be developed by the Address Council and ratified by the NRO Executive Council.

Recommendation 2: Update Attachment A of the ASO MoU to ensure that it is consistent with the description of the Global Policy Development Process (GPDP) in the Address Council Operating Procedures (ASO AC OP) document.

The only amendment that needs to be made to Attachment A of the MoU concerns the empowerment of the Address Council to determine whether a policy proposal submitted directly to the ASO meets the definition of a global policy. The Address Council should be empowered in the same way regarding policy proposals submitted directly to the RIRs. The empowerment of the ASO in this way is described in sections 6.4.1 and 6.4.2 of the ASO AC OP.

As described in Sections 2.1 and 2.3.2 of this report, it is anticipated that the empowerment of the Address Council will have a positive impact on the early withdrawal of a policy proposals that does not meet the definition of a global policy. It will also allow the PPFT teams to assume their facilitation role during the RIR discussion phase of global policy proposals.

4.2 Recommendations regarding the GPDP

Five recommendations are made regarding the enhancement of the GPDP. The rationale behind these is described in various sections of this review, in particular Section 2.3.2. The first three concern procedures described in Attachment A of the ASO MoU that are still pending mutual agreement by ICANN and the NRO. The latter two concern updates to Section 6 of the ASO AC OP.

<u>Recommendation 3:</u> The signatories of the ASO MoU should mutually agree on a procedure on how the Address Council should deal with a global policy proposal that has been objected or rejected by the ICANN Board.

Step 12 of Attachment A of the ASO MoU states that the *"ASO Address Council, in conjunction with the RIRs and working through agreed procedures, shall consider the concerns raised by the ICANN Board, and engage in a dialogue as appropriate with the ICANN Board."* This wording is not unequivocally clear regarding who has to agree on this procedure, however, Reviewers' understanding is that, the agreeing parties are also the signatories of the ASO MoU. What is certain is that an agreement over this procedure is pending.

<u>Recommendation 4:</u> The signatories of the ASO MoU should mutually agree on a mediation procedure should the ICANN Board reject a resubmitted global policy proposal for the second time.

Step 15 of Attachment A of the ASO MoU states that if *"the resubmitted proposed policy is rejected for a second time by ICANN, then the RIRs or ICANN shall refer the matter to mediation using an agreed procedure to resolve the matter."* This procedure is pending.

<u>Recommendation 5:</u> The signatories of the ASO MoU should agree on a procedure through which the recognition of the ability of the ICANN Board to request the Address Council to initiate a policy development process through the RIRs would be provisioned.

Consideration 1 of Attachment A of the ASO MoU states that through "*the provisions of an agreement to be executed between the RIRs and ICANN, it is recognized that the ICANN Board has the ability to request that the ASO Address Council initiate a policy development process through the RIRs".* This procedure is still pending.

As mentioned in sections 2.1.2 and 2.3.2 of this review, procedure 6.1.3 of the ASO AC OP concerns the recognition of the ability of the ICANN Board to request the Address Council to initiate a global policy development. Independently of its merits, this procedure cannot be implemented without an agreement between the signatories of the ASO MoU on a procedure through which this recognition would be provisioned.

<u>Recommendation 6:</u> Update Section 6.1.1 of the ASO AC OP concerning the Address Council Review Segment to reflect the fact that the ICANN Board is now mandated to request advice from the Address Council on the merits of a forwarded global policy.

Article 3 of the Board's Review Procedures for Global Internet Number Resource Policies Forwarded for Ratification by the ASO Address Council, in accordance with the ASO MoU, states that within one day of the reception of a global policy forwarded to it by the Address council the ICANN Board shall request advice from the Address Council, to be delivered at least 30 days before the end of the 60 days it disposes to act.

<u>Recommendation 7:</u> Section 6 of the ASO AC OP should contain a complete description of the GPDP, including Attachment A of the ASO MoU and all the associated procedures requested by the ASO MoU.

As mentioned in Section 2.3.2 it would be beneficial for the GPDP to be compiled in a single document. The fact that aspects of the GPDP are described in six different documents - Attachment A of the ASO MoU, the three agreed procedures requested by

Attachment A, the Board's procedure and Section 6 of the ASO AC OP – is an unnecessary complication.

4.3 Recommendations regarding the presence of the ASO during ICANN meetings

As suggested in sections 2.3.3 and 3.1, four specific recommendations are made regarding improvements that could be made to the meetings of the ASO during ICANN meetings.

Recommendation 8: The in person meetings of the Address Council held during ICANN meetings should be open to all registered participants, at least for most of the agenda.

Following the example of the other SOs and ACs and the ICANN Board most of which meetings are open, the ASO is encouraged to do likewise.

Recommendation 9: During ICANN meetings, the ASO should continue to organize, on an experimental basis, short joint sessions with interested SOs, ACs and GNSO's Constituencies.

This new model of short joint sessions held at the ICANN meeting in Dakar, should certainly be pursued on the same experimental basis, at least for two years. The agendas for these meetings should not only be attractive and announced in advance, they should also include the presence of as many members of the Address Council as possible.

Recommendation 10: The agenda for NRO/ASO workshops at ICANN meetings should be enriched, avoiding presentations that are already available in the NRO, ASO and RIR websites

Over the years, the NRO/ASO has held workshops at ICANN meetings which have not been wholly successful. The main complaint has been that presentations are too flat and that the information provided is largely available in the NRO, ASO and RIRs websites. In order to improve this situation, the agenda should be attractive and announced in advance, and be focused basically on ASO activities.

Recommendation 11: The presentation of the ASO Report during ICANN meetings should always be delivered by the Chair of the Address Council.

The reports of the other ICANN SOs and ACs are always presented during ICANN meetings by their respective Chairs, yet the ASO Report is sometimes delivered by the Address Council Chair, sometimes by the NRO Chair, and sometimes by both Chairs. Moreover, Reviewers observed that during the ICANN public forums during which the reports of the SOs and ACs are presented, the ASO slot has been used to make the deliver the NRO Report. Ideally there should be two entirely separate reports, one by the ASO and the other by the NRO. However, this matter is out of scope.

4.4 Recommendations regarding enhancements to the ASO website

In accordance with the measures suggested in Section 2.3.4 of this review, four specific recommendations regarding the enhancement of the ASO website are presented in the following sections. We note that a redesign of the website in ongoing. We have not been privy to the plans for the new site and it may be that some of our recommendations have already been taken into account.

Recommendation 12: The ASO website as a whole, and especially the homepage, should clearly reflect the fact that the ASO is an ICANN SO whose functions are fulfilled by the NRO.

Although the ICANN logo appears on every page of the ASO website the NRO logo does not appear anywhere. There are links from the NRO website to the ICANN and ASO sites yet there are no links in the opposite direction. Although the purpose of the ASO is described on the homepage it does not strictly reflect the wording of neither the ICANN Bylaws nor the ASO MoU. Neither is any mention made of the fact that the ASO functions are fulfilled by the NRO.

Recommendation 13: A detailed FAQ of the ASO should be added to the ASO website

The NRO FAQ is a good model on which to base the ASO FAQ. The ASO webmaster's duty regarding an FAQ Page should only concern the presentation of the content, not the drafting of this page. Recommendation 25 concerns the drafting of the content of this page.

Recommendation 14: A fully researched, documented and referenced history of the ASO should replace the existing history page of the ASO website

As with the ASO FAQ page, the ASO webmaster's duty regarding a new History Page should concern only the presentation of the content, not the drafting of the page. Recommendation 26 concerns the drafting of the content of this page.

Recommendation 15: The ASO should translate the ASO's constituent documents into the main languages in use within ICANN and the addressing communities.

The constituent documents of the ASO including the ASO MoU and all ratified policies should be translated into the main languages in use within ICANN and the addressing communities. Reviewers note that the RIRs have already translated some of these documents into languages used in their respective regions.

Recommendation 16: The ASO website should be regularly checked for technical errors, broken links etc. For this Reviewers recommend usingusing the three W3C website validators

This recommendation implies that the following steps should be followed in the management of the ASO website:

- Repair all errors, advertisements, links permanently redirected and broken links identified by the W3C validators;
- Post the W3C icons as soon as they are obtained; and
- Revalidate the ASO website once a month.

4.5 Recommendations regarding the enhancement of the ASO Procedures

Recommendation 17: The procedures should be labeled ASO Procedures and not ASO AC Procedures

Even if the current Address Council Procedures are developed by it and ratified by the NRO Executive Council they cover a number of functions fulfilled by the NRO Executive Council.

Recommendation 18: A procedure for the appointment of NomCom members should be added to the ASO Procedures

Since 2004, under the current ASO MoU, the Address Council has appointed members to the NomCom without a specific procedure.

Recommendation 19: A procedure for the appointment of members of the Affirmation of Commitments (AoC) Review Teams and any other ICANN bodies should be added to the ASO Procedures

In 2010 the Address Council appointed members to the AoC Review Teams, without following a specific procedure. As the AoC Review Teams will be reappointed periodically in the future and will ICANN probably call for the appointment of members of its other bodies, these procedures should be defined.

Recommendation 20: A procedure for advising the ICANN Board on the recognition of new RIRs should be added to the ASO Procedures

Section 2 of the ASO MoU states that one of the purposes of the ASO MoU is to define a mechanism *"for the provision of recommendations to the Board of ICANN concerning the recognition of new RIRs."* Even if the NRO provided a recommendation to the ICANN Board in the case of the recognition of AfriNIC it is clear that a procedure is still lacking at this respect.

4.6 Recommendations to the ICANN Board

Recommendation 21: The ICANN Board should be urged to request advice from the ASO on other policy issues regarding IP number resources other than global addressing policies

As pointed out in Section 2.1.5 of this review, ICANN has never requested the advice of the ASO on issues other than global policy proposals. The ICANN Board is encouraged to be more proactive in this regard.

Recommendation 22: The ICANN Board should check if its Procedures for the Ratification of Global Addressing Policies meet the ATRT Report's recommendations in this regard

The ATRT Report established a new standard for the ratification of policies by the ICANN Board. The Board should check if its procedures for the ratification of global addressing policies the meet the requirements of this new standard.

4.7 Recommendations to the NRO Executive Council

<u>Recommendation 23:</u> The NRO Executive Council should help to empower the PPFT teams in their facilitation role

As underlined in Section 2.1 of this review, members of the PPFT teams consider that they are insufficiently empowered to assume their facilitation role.

<u>Recommendation 24:</u> The NRO Executive Council is urged to respond to the ICANN Board´s request to react to the ARTR Report as soon as possible.

As mentioned in Section 3.1 of this review, in January 2011 the ICANN Board requested all SOs, ACs and the NomCom, to provide the Board with initial input on the ATRT Report. It appears that the ASO has not yet responded to this request.

4.8 Joint Recommendations to the ICANN Board and the NRO Executive Council

<u>Recommendation 25:</u> The ICANN Board and the NRO Executive Council should agree on the content of a FAQ of the ASO to be posted on the ASO website

This recommendation corresponds to the content side of Recommendation 13. Certainly, a FAQ in a situation like this should be agreed at the top level of the two signatories of the ASO MoU. However, it seems that the drafting of this content should be coordinated by the Address Council.

<u>Recommendation 26:</u> The ICANN Board and the NRO Executive Council are encouraged to agree on the content of a documented History of the ASO to be posted in the ASO website

This recommendation corresponds to the content side of Recommendation 14. Certainly, a documented history in a situation like this one needs to be agreed at the top level of the two signatories of the ASO MoU. However, it seems that the drafting of this content should be coordinated by the Address Council.

5 Annexes

5.1 Persons interviewed

I. RIR CEOs

Adiel Akplogan, AfriNIC CEO
Paul Wilson APNIC CEO
John Curran, ARIN CEO
Raúl Echeberría LACNIC CEO
Axel Pawlik, RIPE NCC CEO

I. Other Relevant RIR Staff

Geoff Houston, APNIC Chief Scientist
Stephen M. Ryan, ARIN General Counsel
Daniel Karrenberg, RIPE NCC Chief Scientist
Emilio Madaio, RIPE Policy Development Officer
Alain Patrick Aina, Special Projects Manager, AfriNIC

III. RIR Board Members

AfriNIC Board

Ndéye Maimouna Diop, Chair
Janvier Ngnoulaye
Lala Andriamampianina
Alioune Badara Traore
Adiel Akplogan, CEO

APNIC Executive Council

Marmura Akinori, Chair
MA Yan, Secretary
James Spenceley, Treasurer
Che Hoo
Zhao Wei
Gaurab Raj Upadhaya (Former Policy Chair)
Kenny Huang, (Former Councilor at the Address Council)
Paul Wilson, CEO

ARIN Board of Trustees

Timothy Denton, Chair
Paul Andersen, Treasurer
Paul Vixie, Secretary (Former Chair of ARIN Board)
Vint Cerf, Director (Former Chair of the ICANN Board)
Scott Bradner (Former Chairman of the ARIN Board)
Bill Woodcock
John Curran, President and CEO

LACNIC Board

Oscar Messano, Chair
Hartmut Glaser, Treasurer (Councilor at the Address Council, Former CEO of .br, Secretary General CGI)
Alejandro Guzmán (Councilor at the Address Council for the term 2012-2015)
Wardner Maia

Rafael (Lito) Ibarra
Oscar Robles (CEO of .mx, Former ccNSO Council)

RIPE NCC Board

Nigel Titley, Chair
Remco van Mook, Treasurer
Dmitry Burkov
Rob Blokzijl (Former ICANN Director appointed by the Address Council)

IV. Policy Chairs and Advisers

Andy Linton, APNIC Policy Chair (Councilor at the Address Council)
John Sweeting, ARIN AC Chair
Owen de Long, ARIN AC
William Darte, ARIN AC
Martin Hannigan, ARIN AC (Former Councilor at the Address Council
Nicolas Antoniello, LACNIC Policy Chair
Marc Larson Henry, LACNIC Policy Co Chair
Christian O'Flaherty, LACNIC Former Policy Chair
Gert Doering, RIPE Address Policy Working Group
Alex Le Heux, Policy Implementation Coordination Group
Sander Stefann, Co-Chair, RIPE Policy WG
Timothy McGinnis, AfriNIC Policy Co Chair
Paolos Nyrienda, AfriNIC Policy Co Chair

V. Address Council

Louie Lee, Chair (Former Member of the ARIN Advisory Council)
Alan Barrett Vice Chair (Former AfrINIC Policy Chair)
Jean-Robert Hountomey
Naresh Ajwani, Vice Chair
Tomohiro Fujisaki (Former APNIC Policy Chair)
Andy Linton (APNIC Policy Chair)
Ron da Silva (Former Chair of the ARIN Advisory Council)
Jason Schiller (Former Member of ARIN Advisory Council)
Sebastián Bellagamba (Former Address Council Chair)
Hartmut Glaser (Director at the LACNIC, Board Secretary General of CGI, Former CEO of .br)
Hans Peter Holen (Former RIPE NCC Policy Chair)
Dave Wilson
Wilfred Woeber (Former RIPE NCC Policy Chair)

VI. ICANN Staff

Senior ICANN Staff

Rod Beckstrom, ICANN CEO
John Jeffrey, ICANN General Counsel
David Olive, Policy VP
Elise Gerich, IANA General Manage

Other Relevant ICANN Staff

Bart Bostwinkel, ICANN Policy Officer
Olof Nordling, ICANN Policy Officer
Leo Vegoda, Operational Excellence Officer, IANA
Anne Rachel Inne, Manager, Global Partnernships

VII. ICANN Board

Board Directors and Liaisons, active when interviewed

Steve Crocker, Chair
Bruce Tonkin, Vice Chair (Former Chair GNSO Council)
Sébastien Bachollet, Director
Bertrand de la Chapelle, Director (member of the SIC Committee)
Bill Graham, Director
Ram Mohan, SSAC Liaison
Thomas Narten, IETF Liaison
Gonzalo Navarro, Director
Ray Plzak, Director appointed by the Address Council (Chair of the SIC Committee, Former CEO of ARIN)
George Sadowsky, Director (member of the SIC Committee Former Chair of the NomCom)
Mike Silber, Director (member of the SIC Committee)
Katim Touray, Director
Kuo Wei, Director appointed by the AC (Chair of the IANA Committee)
R. Ramaraj, Director
Reinhardt Scholl, ITU Liaison to the ICANN Board

Former Board Directors

Vint Cerf, Former Chair of the ICANN Board (Director at the ARIN Board of Trustees)
Peter Dengate Trush, Former Chair of the ICANN Board
Lyman Chapin, Former Director appointed by the Address Council (SSAC member)
Mouhamet Diop, Former Director appointed by the Address Council
Rob Blokzijl, Former Director appointed by the Address Council
Nii Quaynor, (AFNOG, Former AfriNIC founder)

VIII. ICANN Other ACs and SOs

ALAC

Olivier Crépin-Leblond, Chair
Cheryl Langdon-Orr, Vice Chair, Former Chair

ccNSO

Leslie Cowley, Chair (CEO of Nominet)
Juhani Juselius, ccNSO Council
Keith Davison, ccNSO Council

GNSO

Stéphane Van Gelder, Chair
Chuck Gomes, Former Chair

SSAC

Patrik Falstrom, Chair
Lyman Chapin (Former ICANN Director appointed by the Address Council)

IX. ISP Constituency

Tony Holmes, Chair of the ISP Constituency (Councilor at the GNSO Council)
Mark McFadden, ISP Constituency (Former Chair of the ISP Constituency, Former Chair of the Address Council)
Alain Bidron, ISP Constituency
Antonio Harris, ISP Constituency (Former GNSO Councilor, Former Chair of CABASE)

X Other relevant members of the ICANN Community

Marilyn Cade, Business Constituency Chair
Milton Mueller, Former Chair of the Non Commercial Constituency
Randy Bush
Lynn de Saint Amour, ISOC CEO

Werner Straub, CORE's Executive Council
Brian Cute, ATRT's Chair (CEO of PIR)
Maarten Botterman, CEO of GNKS (Chair of PIR Board)
Pierre Dandjinou, founding member of AfriNIC

5.2 Written responses to online survey and interview extracts

This section includes comments recorded during face-to-face interviews and others submitted in the 'open comment' section of the online survey. Comments are batched by theme and labelled according to the following broadly defined categories.

ASO/NRO/RIR: ASO AC, NRO EC, NRO staff, RIR Boads and staff.

ICANN SOs & ACs: Representatives of other ICANN SOs and ACs

ICANN: ICANN Board, senior and regular staff

RIR meeting: RIR meeting participants

ICANN meeting: ICANN meeting participants

Commercial stakeholder: Commercial stakeholders with links to ICANN

Need for more visible/proactive ASO within ICANN

[ASO/NRO/RIR] Elected representatives, ASO AC, by community should be leading the format instead of RIRs' officials.

[ICANN SOs & ACs] We need a more obviously engaged ASO in ICANN and more interaction with the other AC's and SO's particularly more engagement in SO PDP and WG activities.

[ICANN SOs & ACs] There is, generally speaking, a lack of information that's readily available concerning the activities of the ASO. It seems the image of the ASO could be reinforced.

[ICANN] The ASO must be more integrated to ICANN world. That will help a better knowledge.

[ICANN SOs & ACs] This is one of these Organisations that you really do not hear to much about.

[ICANN SOs & ACs] I function primarily in the ALAC arena and am completely unaware of the ASO and its role I am embarrassed to say.

[RIR meeting] I've seen no 'direct' output from the ASO; thus, I really cannot measure its effectiveness. Perhaps that says it all, however.

[ICANN] The ASO is an important player in the ICANN community, but few outside that Organisation are aware of its role or impact. Whether by chance or design, until recently the ASO does not seem to have actively publicized its involvement in ICANN processes. As a result, few outside the ASO/NRO have a real understanding of the role/processes or activities of the Organisation. Recently the ASO has made efforts to be more engaged and public about its activities at ICANN Public meetings. To date, there is little community response to that modest outreach effort. It takes time to build that understanding, so I hope that the ASO continues to make those efforts.

Advisory role of the ASO

[RIR meeting] I think the ASO advisory role to the ICANN board should be boosted, and not only the ASO but the RIR community in general. ICANN board should request the advice of the ASO address council more often.

Need for reform of ASO in view of transition to IPv6

[ICANN meeting] The set-up of the ASO, the NRO and the ASO-MoU would be OK if IPv4 exhaustion was not one of the problems to deal with. The financial and political pressure that can result from IPv4 exhaustion are too strong for the present set-up to withstand. ICANN and the NRO must set up an environment that replaces a high cost of purchase of IPv4 address space with a high cost of ownership for IPv4 space. Continued inaction in this respect can lead to a dangerous IPv4 real estate bubble and cause the IPv6 to fail.

Reviewers noted strong and often contradictory statements in this regard, such as:

[RIR meeting] ICANN needs to decide if it is a part of the solution or of the problem;

[RIR meeting] ICANN should not became the promoter of IPv6, it has to leave the market to decide; or

[RIR meeting] ICANN should not forget that the master always has to eat the dog's food. In other words ICANN should set the example as far as IPv6 compliance is concerned.

Need for clearer distinction between the ASO and the NRO

[RIR meeting] Clearer delineation of responsibilities between NRO NC and NRO EC. Clearer role of ASO AC in global policy development process.

[ASO/NRO/RIR] There is considerable confusion in the community regarding the distinction between the ASO and the ASO Address Council. Whenever there is an update, we always need to include a reminder about who we are and what we do. We are continually educating the community about who we are.

[ASO/NRO/RIR] Avoiding confusion between the two has been a long-standing issue. The RIRs receive services from IANA. These services are controlled by policies. The NRO will interact with ICANN directly on those service issues and that's on a different track from the policy process which sits over or alongside. There are two tracks of activity.

Need for more accountability and transparency

[RIR meeting] The structure of the ASO excludes the voice of many stakeholders and fails to hold the RIRs accountable. The ASO is effectively made up of RIR insiders; the RIR policy development community appoints the NRO, yet does not adequately represent the larger community of address holders and users. The NRO and RIRs do, however, claim the power to define policy regulating the behavior of the wider Internet community. The current ASO structure invests power in the NRO and RIRs without providing an adequate system of checks and balances. The RIR community needs to be held accountable to the Internet at large, must be lawfully based rather than ad-

hoc, and ought to live up to civil society's standards for governance. The structure of the ASO should be fundamentally modified to enable it to act in the interest of the Internet's address holders, rather than a self-selected group of RIR insiders.

[RIR meeting] In the APNIC region, many of the ASO activities are not visible unless you actively seek for information. It would be more useful if ASO AC could act as a liaison between what's going in the ASO/ICANN arena and the APNIC community. For example, the status of the current global policy that reached consensus in the APNIC region could have been updated APNIC meetings, and could have a brief time to share some of the issues being discussed in ASO meetings. The information on ASO website is basically sufficient but does not give a very user friendly feeling, and gives the impression that it is only relevant to those who are closely involved. Perhaps more diagrams and graphics would help to give a more familiar impression.

[ASO/NRO/RIR] There is plenty of transparency and accountability within the ASO system. All information regarding initiatives undertaken by the AC and the function played by the ASO within ICANN can be found on the website. All active policy proposals are online. There are links to the sites of the RIRs. In spite of this it appears some ICANN members feel like they're not sufficiently informed or involved. This, they claim, is because they have not been given a platform during ICANN meetings - even though, in actual fact, they've been given numerous opportunities to take part in regional meetings.

Need for improved global policy development process (GPDP)

[ASO/NRO/RIR] It would be great to have a better process for passing Global Policy. In my view the ASO AC should have greater authority to make the policies passed within an RIR region cohesive. They should take ownership and ensure that the message to all the RIR's are consistent and relevant. They should participate in the judging global consensus. It would also add a lot of value if the ASO AC chair had regular meetings with the person/people responsible for policy development in the RIR's.

[ASO/NRO/RIR] Some people linked to the functioning of the ASO have raised questions about the Global Policy Development Process. There is no global process as such. Each region has its own PDP and it is only when each region has successfully conducted its PDP that global consensus can be said to have been reached. It can be a long process but it is difficult to know how it can be improved. It is of the nature of a truly bottom-up policy development process.

[ASO/NRO/RIR] The ICANN Board should request more advice from the Address Council. The global policy regarding the returned IPv4 legacy space showed that there is a void in the PDP when a consensus among the RIRs has not been reached. Clearly, in situations like this, the Address Council could be empowered to play the role of facilitator. To a certain extent, the recent incorporation of one Board Director from each RIR to the NRO EC may also be, and in fact is being, a facilitator.

[ASO/NRO/RIR] I believe the global policy development process should be updated, including the following:

If the global policy text passed by each RIR is not identical, then the ASO should attempt to find compromise language acceptable to all RIRs and report it to each RIR's policy development process for confirmation of the compromise text.

Each RIR's Policy Chair should become a non-voting ex officio member of the ASO to facilitate communications between each RIR's policy development process and the global policy development process.

[RIR meeting] The ASO/NRO should take a more active role in shepherding global policies - to minimize and collaborate changes made to a policy as it goes through each RIR's PDP. Significant changes to a global policy in process of working through each RIR's pdp significantly extends the amount of time it takes before the policy can be adopted.

[RIR Board] Work On a global transfer policy. Work on a global policy regarding Whois data.

Relations between the RIRs/NRO and ICANN

[ICANN meeting] The ASO is kept weak by the RIRs intentionally. The RIRs continue to see ICANN as an enemy/rival and do too little to cooperate with ICANN and to build up the Organisation. The insatisfaction with the ASO and its low level of functionality are an effect of deliberate conduct of the RIRs that MUST change. The RIRs' financial contribution to ICANN is ridiculously low and is one more sign of their pathological non-commitment.

[ASO/NRO/RIR] I think that ICANN has completely stuffed up the Domain Name portion of their IANA role and I am concerned about any effort by IANA to make similar moves on the IP number resource area.

[ICANN] The ASO is a quiet part of the ICANN system but this is not a problem. It is mainly seen by the Board as a sign that it functions efficiently. This may be because the issues are less complex than in the domain name space, although issues like the returning of IPv4 Space are not simple. The level of complaint or controversy regarding the management of IP addresses is very low. Everyone is free to comment or contest ASO policy proposals but no one does.

[ICANN] The NRO might get in our face a bit more and convince us to listen to them. We, the Board, are the major cause for not knowing what the NRO is doing. it isnot the NRO's fauld that we do not know much about them. It is the Board that needs to take the lead.

[ASO/NRO/RIR] The main thing to note about the relationship between ICANN and the NRO is that it works. ICANN should not be more involved than it is at the moment. The balance as it is at present is good. Don't need to seek for any other kind of balance.

Relations with other ICANN SOs and ACs

[ASO/NRO/RIR] There is some contact. We are aware of each other and available for discussion. Not many topics that we share in common which is why there hasn't

been much interaction. There's very little participation of the other SOs and ACs in the open meetings of the Address Council.

[ICANN SOs & ACs] We have very little contact with the ASO and very little awareness of what is going on. On the other hand there is a sense that what they do they do well. It seems to be an uncontroversial part of the ICANN system.

[ICANN SOs & ACs] There needs to be a better system for informing the Chair of the other SOs and ACs regarding the 'Tracking Document' regarding global policy development processes. At present we are not systematically informed of updates to the report. We have to go and look for the information.

Relations between the RIRs/NRO and ICANN

[ICANN] The ASO functions very well. Very professional community. Critical part of the ICANN system. Completely familiar with the relations between ICANN and the NRO. The NRO performs the function of the ASO. Unique relationship / structure for a supporting organisation since the Addressing community was well -structured prior to the creation of ICANN.

[ASO/NRO/RIR] There is going to be a need for greater interaction within the ICANN system. Up until now the low level of communication has been perfectly adequate but this may not be enough as we move forward. Questions of IPv4 - IPv6.

[ASO/NRO/RIR] We are part of this system which we're defending as a functioning integral whole. So even though the DNS and IP addresses are different on almost every single dimension, whether legal, technical or commercial, we're sitting together in one body that exemplifies the multistakeholder organisation that is ICANN.

[ASO/NRO/RIR] The relationship between ICANN and the NRO can be characterised as an 'entente'. 'Don't meddle too much in our affairs and we won't meddle in yours', sort of relationship. It works well enough but it is not a relationship based on full confidence. The NRO, via the ASO AC, is part of the ICANN system, and even defends the ICANN system when required. However it is not an unconditional supporter of, and even has significant reservations about the ICANN system which is fairly dysfunctional in other respects.

[ASO/NRO/RIR] Overall wouldn't say that relations between ICANN are particularly good. They are what they are and the system works fine as it is. It is a status quo. The ICANN system is 'the worst form of internet governance except for all the others' so no real alternative.

The relationship needs to continue and strengthen, but ICANN as a whole needs to function more like the NRO and less like an arm of the WIPO. ICANN should definitely not get too involved in the affairs of the RIRs.

[Participant ICANN Meeting] Clear and explicit link on ASO and SSAC, also help the ICANN community in the broadest sense to better understand the role of RIRs in ensuring stability and security in routing. Clear lack of understanding of the RIR issues with those that do not participate to (one of) their meetings (like GAC, etc)

[ICANN] The biggest problem is that the ICANN Board and staff cannot identify the correct chair of the ASO. The previous ICANN CEO refused to mention the NRO. There

was a fundamental misunderstanding between the two organisations. This is a major weakness that could be mended.

[ICANN] The NRO has always been very supportive of ICANN.

[ICANN] Commenting on the Exchange of Letters: I've always been of the view that the exchange of letters is a ridiculous mechanism. It doesn't mean anything. A letter can be revoked the day after it was signed. Irrelevant.

[ASO/NRO/RIR] Fully aware that there has been an exchange of letters between ICANN and the NRO. But not aware that it is almost impossible to find those letters in the Web. In favour of making them visible. Although not in favour to add them to the reviewed ASO MoU.

Relations with commercial constituencies

[Commercial stakeholder] I know the ASO MoU very well but it is completely incomprehensible. The way in which the ASO AC or the NRO NC takes part in the development of global policies is extremely nebulous [...] The creation of the NRO was not the result of a discussion with the community. Today the ICANN is a much more stable organisation. There is a need to clarify who is who.

[Commercial stakeholder] The RIRs function in a discreet manner as far as the rest of ICANN is concerned. However the fact that they function in a semi autonomous manner means that they are more likely to be taken over by organisations like the ITU - which would be disastrous. Having said that, starting at the ICANN meeting in Cartagena, the ASO started holding more regular meetings. Their presence started to be felt again. Before that they were completely invisible and closed.

Need for updated MoU?

[ASO/NRO/RIR] The MoU was signed in a time that is different from the realities of this day and age. The MoU could be updated to reflect these realities.

[ASO/NRO/RIR] The portion of the MoU dealing with the Address Council defines a set of duties. These can either be seen as limit or a starting point. It may be worthwhile clarifying precisely what these responsibilities are.

[ASO/NRO/RIR] We are aware of the strong support of the NRO to ICANN in the international arena: WSIS; IGF; NTIA; IANA Contracts, etc. Also aware of the letters between ICANN and the NRO, but not that they are not visible at their Websites. Surely they should be made public, although undecided about whether they should be added to the ASO MoU.

[ICANN] Thanks to the MoU there has been a stable operating environment. The document clearly defines the relationship between ICANN and the ASO. There have been global policies that have been implemented. If there are things that haven't worked out right it has been from ICANN's side, mainly through a lack of understanding of the relationship between the NRO and ICANN. The Board doesn't fully understand that the addressing community functions in a semi autonomous way.

[ASO/NRO/RIR] The MoU is fine as it is. There were discussions with ICANN about extending the remit of the ASO MoU, but typically [someone] would say "no way - where in the ASO MoU does it say that you should be writing RFCs as the Address Council. You're welcome to do whatever you want in your own capacity but the

Address Council is not here to write RFCs. We the RIRs do not support you carrying out your responsibilities to us with those address council tasks on those activities." As a group, as a collective, the consensus has always been to operate on a minimal level.

[ASO/NRO/RIR] It is time to have another look at the ASO MoU. Things have changed since 2004. IPv4 address reserves have been depleted. What was the case in 2004 is no longer the case today. The ASO MoU needs to be redefined to open it up. A way needs to be found to better use the skills contained by the ASO AC. There are wasted opportunities at present.

Other

[ICANN SOs & ACs] I think the NRO NC in performing the ASO AC function does a good job in processing global policy proposals.

[Participant RIR meeting] The IANA, as specified in its contract, is an address registry and should -NOT- be excluded from full participation in the NRO. The ASO should work to find ways to include IANA in the NRO. Persons, Natural and otherwise are not restricted to a single geographic region, hence my ""i don't know"" when asked about which RIR affects me. Two of them do, directly."

[Participant ICANN Meeting] It would be important to listen to other sectors, such as LACNIC groups, has become a kind of small groups of pals to make much noise, but the results are far from satisfactory. Elementary series to assess, especially when receiving donations of money and trying to justify with meetings involving only the ""buddies"". So the digital divide will continue and serious reason for these Organisations have little or nothing for the digitally illiterate.

[ICANN] The major risk to the Addressing Community is the emergence of a secondary market for IPv4 addresses. This market is potentially worth billions. Lots of vested commercial interests. The addressing community and the ICANN system as a whole will need to become a LOT more legally sophisticated in preparation for legal cases arising with this market.

5.3 References[18]

- Cover letter from the existing RIRs proposing an ASO MoU, sent on July 23, 1999: http://aso.icann.org/documents/cover-letter-for-aso-proposal
- ASO MoU Proposal submitted by ARIN, RIPE NCC, and APNIC, sent on July 23, 1999: http://aso.icann.org/documents/aso-proposal
- First ASO MoU, signed on October 18, 1999: http://aso.icann.org/documents/memorandum-of-understanding-1999
- Policy ICP-2 regarding the recognition of new RIRs, adopted by the ICANN Board, on June 2001: http://www.icann.org/en/icp/icp-2.htm
- Recognition of LACNIC, adopted by the ICANN BOARD, on October 31, 2002: http://www.icann.org/en/minutes/minutes-31oct02.htm
- NRO MOU signed by the Existing RIRs, on October 24, 2003: http://www.nro.net/wp-content/uploads/2003/10/nro1.pdf
- NRO MoU FAQ, posted on October 24, 2003: http://www.nro.net/documents/nro-memorandum-of-understanding-faq
- Current ASO MOU signed by ICANN and the NRO, on October 24, 2004: http://aso.icann.org/documents/memorandum-of-understanding
- Recognition of AfriNIC, adopted by the ICANN Board, on April 8, 2005: http://www.icann.org/en/minutes/minutes-08apr05.htm
- ICANN Accountability and Transparency Frameworks and Principles: http://www.icann.org/en/transparency/acct-trans-frameworks-principles-10jan08.pdf
- Final Recommendations of the Accountability and Transparency Review Team:http://www.icann.org/en/reviews/affirmation/atrt-final-recommendations-31dec10-en.pdf
- ICANN Bylaws: http://www.icann.org/en/general/bylaws.htm#I
- NRO FAQ: http://www.nro.net/about-the-nro/nro-faq
- Address Council Procedures (ASO AC OP): http://aso.icann.org/wp-content/uploads/2011/10/aso-ac-operational-procedures.pdf

[18] These documents are listed in chronological order, with the exception of documents updated periodically, which are located at the end of this list.

5.4 Relevant NRO statements regarding the management of critical Internet resources

In the following sections we list the main NRO statements regarding the management of Internet Critical Resources. Statements are grouped into three categories:

- Management of IP Addresses;
- Internet governance issues; and
- NTIA Consultations on ICANN agreements with the DoC and on the IANA Contract

5.4.1 Management of IP Addresses

During the World Summit on the Information Society (WSIS) process, the Director of the ITU-TSB published a memorandum entitled, *"ITU and Internet Governance"* for public comment.

In this memorandum he proposed to create a second track for the distribution of the IPv6 address space distribution process, based solely on national authorities, in completion with the regional RIR regime track. As this proposal could have a serious impact on Internet operators and the global Internet community, the NRO issued a response to this memorandum detailing the flaws of the proposal and the negative impact it would have on Internet operations. The following documents reflect this debate at that time:

- Summary of the NRO Response to ITU Comments on the Management of Internet Protocol (IP) Addresses: http://www.nro.net/wp-content/uploads/2004/11/nro18.pdf
- NRO Response to ITU Comments on the Management of Internet Protocol (IP) Addresses: http://www.nro.net/wp-content/uploads/2004/11/nro17.pdf
- The original ITU memorandum is available at: http://www.itu.int/ITU-T/tsb-director/itut-wsis/files/zhao-netgov01.doc
- An updated version of the original ITU Memorandum is available at http://www.itu.int/ITU-T/tsb-director/itut-wsis/files/zhao-netgov02.doc
- Houlin Zhao's Response to NRO Statement: "NRO Response to ITU Comments on the Management of Internet Protocol (IP) Addresses": http://www.nro.net/wp-content/uploads/2010/11/itu-response.pdf
- NRO clarifications after Houlin Zhao's response: http://www.nro.net/wp-content/uploads/2010/11/nro-clarification.pdf http://www.nro.net/news/clarification-on-nro-statement-nro-response-to-itu-comments-on-the-management-of-internet-protocol-ip-addresses

In the aftermath of this early debate on ITU's proposal to become an alternative track to the RIRs regime for the allocation of IP addresses at a regional level, given that the ITU has not abandoned this double track proposal for the allocation of IPv6 addresses besides the low support it has had in the Internet community. In this new context, the following statements have been issued by the NRO at this respect:

- NRO response to WGIG Paper on IP Numbers, issued on April 2005: http://www.nro.net/wp-content/uploads/2005/04/nro23.pdf

- "WSIS Reinforces the Regional Internet Registries (RIR)", issued in November 2005: http://www.nro .net/news/wsis-reinforces-the-regional-internet-registries-rir
- "The Vital Role of the NRO and RIRs in the Management of IP Addresses", a paper presented at the IGF forum at Hyderabad in December 2008: http://www.nro.net/wp-content/uploads/2010/12/IGF_IP_Statement.pdf
- NRO Response to the National Advanced IPv6 Centre of Excellence (NAv6) Survey, issued in May 2009: http://www.nro.net/wp-content/uploads/2010/11/nav6-survey-response.pdf
- "NRO Response to TSB Questionnaire on IPv6 Address Allocation and Encouraging the Deployment of IPv6", issued in May 2009: http://www.nro.net/wp-content/uploads/2010/10/nro-response-to-itu-.pdf
- "IPv6 – What is it, why is it important, and who is in charge?", a factual paper endorsed by the CEOs of ICANN and the five RIRs in October 2009: http://www.nro.net/wp-content/uploads/2009/11/nro50.pdf
- NRO POSITION REGARDING THE REPORT OF THE ITU-TSB DIRECTOR TO THE ITU COUNCIL, issued in October 2009: http://www.nro.net/news/nro-position-regarding-the-report-of-the-itu-tsb-director-to-the-itu-council
- "Number Resources Organization emphasize importance of Internet resources management in developing regions", paper presented at the IGF forum at Sharm el Sheikh in November 2009: http://www.nro.net/wp-content/uploads/2009igf-nro.pdf
- "IPv6 Around the World NRO's Contribution to ITU-T IPv6 Study Group", a paper presented at the Plenipotentiary ITU Conference in September 2010: http://www.nro.net/wp-content/uploads/2010/09/statement-to-the-CIR-session.pdf
- Report on the ITU Plenipotentiary October 2010 Guadalajara, Mexico, an NRO report on the results of the Plenipotentiary Conference issued in October 2010: http://www.nro.net/news/itu-plenipotentiary-october-2010-guadalajara-mexico
- NRO response to ITU IPv6 Group Liaison Statement LS3-C19: Problems and solutions, issued in March 2011: http://www.nro.net/wp-content/uploads/nro-response-to-ls-3.pdf
- NRO response to ITU IPv6 Group Liaison Statement LS4: IPv4 issues, issued in March 2011: http://www.nro.net/wp-content/uploads/nro-response-to-ls-4.pdf

5.4.2 Internet Governance Issues

The NRO was created in the preparatory phase of the Tunis Summit on the Information Society. The NRO has been particularly active in the international debate on Internet Governance, in particular at the IGF forums. In this context, the following main statements have been issued by the NRO:

- "Comments to WGIG on Draft Working Papers Identifying Issues for Internet Governance", issued in February 2005: http://www.nro.net/wp-content/uploads/2005/02/comments-wgig-drafts-200502.pdf
- "NRO document presented to the WGIG during its 4th open consultation meeting", issued in June 2005: http://www.nro.net/wp-content/uploads/2005/06/nro24.pdf
- "NRO Comments on the WGIG Report", issued in August 2005: http://www.nro.net/wp-content/uploads/2005/08/nro26.pdf
- "Number Resource Organization statement on Internet Governance", issued in November 2005: http://www.nro.net/wp-content/uploads/2005/11/nro28.pdf

- "Number Resource Organization Statement on WSIS Phase II, Tunis", issued in November 2005: http://www.nro.net/wp-content/uploads/2005/11/nro29.pd
- ‘‘The Number Resource Organization taking part in the World Summit on the Information Society (WSIS): the Internet Pavilion", issued in November 2005: http://www.nro.net/wp-content/uploads/2010/12/WSIS-leaflet11.pdf
- "NRO contribution to the IGF February Open Consultation", issued in February 2011: http://www.nro.net/documents/nro-contribution-igf-feb-2011-consultations-html

5.4.3 NTIA Consultations

Over the years, the NTIA has called for various hearings, RFIs and NOIs regarding the agreements between the DoC and ICANN and the renewal of the IANA Contract. In this context, the NRO has issued the following main statements at this respect:

- NRO Comment on IANA RFI, issued in March 2006: http://www.nro.net/news/nro-comment-on-iana-rfi
- NRO statement regarding the evolution of the ICANN MoU, issued in July 2006, concluding that the ICANN MOU should not be renewed: http://www.nro.net/wp-content/uploads/2010/12/NRO_Comments_to_NTIA_NOI.pdf
- Midterm review of the ICANN/DoC Joint Project Agreement, a letter sent by the NRO to ICANN at this respect, issued in December 2007: http://www.nro.net/wp-content/uploads/2008/01/nro_letter_12172007.pdf
- "The NRO's Comments Submitted to the United States Department of Commerce, National Telecommunications and Information Administration's (NTIA) Notice of Inquiry (NOI)", issued in June 2009: http://www.nro.net/wp-content/uploads/2010/11/response-ntia-noi.pdf
- NRO letter of support to ICANN expressing its will that ICANN continues to fulfill the IANA functions at the end of the IANA Contract, issued in June 2010: http://www.nro.net/wp-content/uploads/2010/11/ICANN-support-100609.pdf
- NRO Response to NTIA Request for Comments on IANA Functions, issued in March 2011: http://www.nro.net/wp-content/uploads/NRO-comments-to-USDoC-NoI.pdf

5.5 Meetings attended by review team

Meeting	Attended by
ICANN 41, Singapore	Hervé Rannou, Raimundo Beca, Tom Mackenzie
APNIC 32, Bussan, South Korea	Raimundo Beca
LACNIC/LACNOG 16, Buenos Aires, Argentina	Raimundo Beca
ARIN/NANOG 28, Philadelphia, USA	Raimundo Beca, Tom Mackenzie
ICANN 42, Dakar, Senegal	Hervé Rannou, Raimundo Beca, Tom Mackenzie
RIPE 63, Vienna, Austria	Hervé Rannou
AfriNIC 15, Yaoundé, Cameroon	Tom Mackenzie

5.6 Acronyms

AC	ICANN Advisory Committee
AfriNIC	RIR for the Africa Region
ALAC	ICANN At-Large Advisory Committee
AoC	Affirmation of Commitments by the DoC and ICANN
APNIC	RIR for the Asia Pacific Region
ARIN	RIR for the North America Region
AS	Autonomous System
ASN	Autonomous System Number
ASO	ICANN Address Supporting Organization
ASO AC OP	Address Council's Operational Procedures
ASO MoU	MoU signed between ICANN and the NRO regarding the ASO
ARPA	Advanced Research Projects Agency
ATRT	ICANN's AoC Accountability and Transparency Review Team
CGI	Comitê Gestor de Internet no Brasil (Brazilian Internet Steering Committee)
CNNIC	China Internet Network Information Center
ccNSO	ICANN Country-Codes Names Supporting Organization
ccTLD	Country-code top-level domain
CORE	Internet Council of Registrars
DAG	Draft Applicant Guidebook for New gTLDs
DNS	Domain Name System
DNSSEC	DNS Security Extensions Securing the Domain Name System
DoC	United States Department of Commerce
IGF	Internet Governance Forum
ISOC	Internet Society
ISP	Internet Service Provider
ITU	International Telecommunications Union
FAQ	Frequent Asked Questions
GAC	Governmental Advisory Committee (ICANN)
GNKS	Global Networked Knowledge Society Consult
GNSO	ICANN Generic Names Supporting Organization
gTLD	Generic Top-Level Domain
IAB	Internet Architecture Board
IAHC	International Internet Ad-Hoc Committee
IANA	Internet Assigned Numbers Authority
ICANN	Internet Corporation for Assigned Names and Numbers
IESG	Internet Engineering Steering Group
IETF	Internet Engineering Task Force
IP	Internet Protocol
IPv4	Internet Protocol version 4
IPv6	Internet Protocol version 6
ISOC	Internet Society
ITAC	OECD's Information Technology Advisory Committee
ITU/UIT	International Telecommunication Union
JPA	Joint Project Agreement between the DoC and ICANN
LACNIC	RIR for the Latino America and Caribbean Region)
MoU	Memorandum of Understanding
NOI	Notice of Inquiry
NomCom	ICANN Nominating Committee

NRO	Number Resources Organization
NRO FAQ	FAQ of the NRO
NRO MoU	MoU agreed by the RIRs establishing the NRO
NROMoUFAQ	FAQ of the NRO MoU
NTIA	National Telecommunications and Information Administration at the DoC
PIR	Public Interest Registry
RAA	Registrar Accreditation Agreement
RFC	Request for Comments at IETF
RFI	Request for Information
RFP	Request for Proposals
RIPE NCC	RIR for the Europe Region
RIR	Regional Internet Registry
RPKI	Resource Public Key Infrastructure
RSA	RIR's Registration Services Agreement
RSSAC	ICANN Root Server System Advisory Committee
SIC	ICANN Structural improvement Board Committee
SSAC	ICANN Security and Stability Advisory Committee
SO	ICANN Supporting Organization
TLD	Top-Level Domain
W3C	World Wide Web Consortium
WGIG	Working Group on Internet Governance
WHOIS	Public Database on registered names and numbers
WSIS	World Summit on the Information Society

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