Review of the ICANN Address Supporting Organization (ASO)

Final Report

3 August 2017

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1.   Executive Summary

Established by Memorandum of Understanding (MoU) between the Regional Internet Registries (RIRs) and ICANN, in 1999, the ICANN Address Supporting Organisation (ASO), is one of the original and currently the longest-standing ICANN Supporting Organisation. The ASO's mission to coordinate with the ICANN Board of Directors on Internet number resources, and its original organisational structure have changed little over the years. The ASO MoU has only needed to been updated once, in 2004, following a restructuring of the ICANN organisation, and the creation of the Number Resource Organisation as a coordinating body for RIRs, and it is still considered by many to be a valid foundational document.

This report contains an assessment of the purpose, function and overall organisational effectiveness of the ICANN Address Supporting Organisation (ASO). Our findings indicate that the ASO Advisory Council (AC) operates in conformity with its mandate as defined by the ASO MoU, forwarding global policy proposals to the ICANN Board on the rare occasions when these come up, nominating individuals to fill seats 9 and 10 on the ICANN Board of Directors when required, and defining procedures for the selection of individuals to serve on other ICANN bodies. The core mission and administrative tasks for which the ASO was set up remain largely unchanged, and there is no pressing need for organisational reform.

However, our impression is that relations between the NRO and ICANN have evolved in recent years in a way that is bound to have certain implications for the operations of the ASO. We have heard that the ASO is facing increasing demands for engagement from ICANN that are currently being addressed on a case-by-case basis by the NRO EC, since they mostly fall outside the ASO AC's narrow mandate. The preparation of the IANA Functions Stewardship Transition and the establishment of the ICANN *Empowered Community* have been associated with an increase in the number and range of demands being put on the ASO.

We have noted that a number of grey areas have emerged within the ASO regarding the separation of powers and responsibilities between the ASO AC and the NRO EC. There are instances in which it is not immediately clear which branch of ASO leadership should assume responsibility, or even if the NRO (acting as the ASO) should engage at all.

Our report contains a series of recommendations many of which concern the need to clarify the separate roles and scope for action of the ASO AC and the NRO EC in connection with the operations of the ASO. We consider some possibilities for change to the structure of the ASO, and present three strategic options for the ASO going forward. These range from maintaining the status quo to the adoption of a two-house *Council*. However, we do not make a specific recommendation in this regard, leaving it to the NRO to determine the future of the ASO by means of a broad public consultation.

We believe the partnership between the NRO and ICANN, in connection with the function and operations of the the ASO, is rooted in mutual self-interest. However, it is equally apparent to us that the partnership risks coming under considerable strain if the administrative overhead that is associated with participation in ICANN processes, starts to outweigh the benefits of collaboration.

In order for the partnership between ICANN and the NRO to succeed we believe it is in the interests of both organisations to act decisively and pre-emptively to ensure the ASO remains focused on its core mission, and to guard against current and possible future pressures for the ASO to become involved in community-wide activities that may be out of scope.

2. Methodology

This Review of the ASO was carried out by ITEMS International, over a six-month period, between late February and 31 July 2017.

2.1. Baseline study: documentary research

The following documents relating to the role and function of the ASO were considered:

- ICANN Bylaws (2016)
- The ASO MoU
- The ASO Address Council Operating Procedures
- Related, non foundational documentation including the NRO MoU, ASO FAQs, the current SLA with IANA/PTI, the work
- CRISP Team report, ASO AC meeting minutes, NRO EC meeting minutes, RIR procedures for NC/AC election, etc.

2.2. Face-to-face interviews & survey

Reviewers conducted face-to-face interviews during the ICANN-58 meeting in Copenhagen and the following RIR meetings:

- APRICOT-2017, Ho Chi Minh, 20 February - 2 March 2017
- ARIN-39, New Orleans, 2 - 5 April 2017
- RIPE-74, Budapest, 8 - 12 May 2017
- LACNIC-27, Foz de Iguaçu, 22 - 26 May 2017
- Africa Internet Summit 2017, Nairobi, 28 May - June 2, 2017

Reviewers targeted members of the Internet Number Community in the following main categories:

- Current ASO AC Members (x15)
- Current NRO EC Members (x5)
- Former RIR CEOs (x3)
- RIR Board Members (x20)
- RIR Staff (x19)
- ICANN Board of Directors (x6)
- ICANN Staff (x5)

2.3. Interviews & survey: response data

In conjunction with interviews Reviewers conducted a data collection exercise using a survey format. Sixty-nine responses were collected.

The breakdown of respondents per organisational affiliation shows an expected distribution of respondents from the various segments of the Internet Number community that were targeted. This includes the 15 members of the ASO AC, the five members of the NRO EC, five ICANN Board Directors, five representatives of the other ICANN SOs and ACs, and a significant number of the RIR Staff.

Survey respondents per organisational affiliation
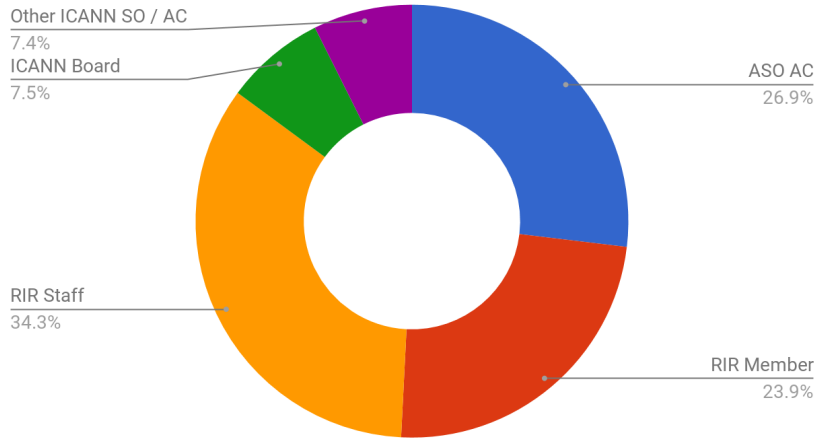
The breakdown of respondents per geographic region reveals a fairly even distribution of respondents around the world with a somewhat higher (but not unexpected) number of respondents from the North American region.

Figure 1: Map showing response rates per country (darker shades of blue corresponding to higher response rates)
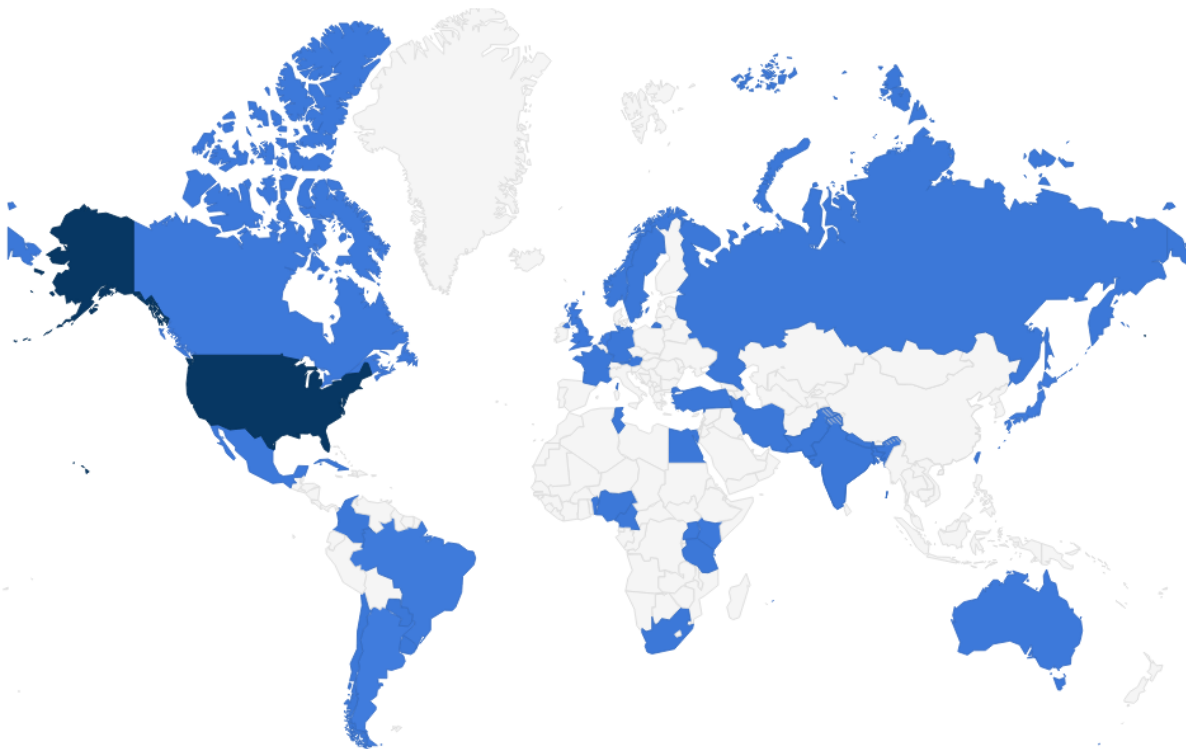
Finally, the breakdown of respondents per gender reveals a heavy (but again not entirely unexpected) dominance of male respondents, reflective of the current gender ratio in the global Internet Number community.

ASO Review global survey: Gender *im*balance of respondents
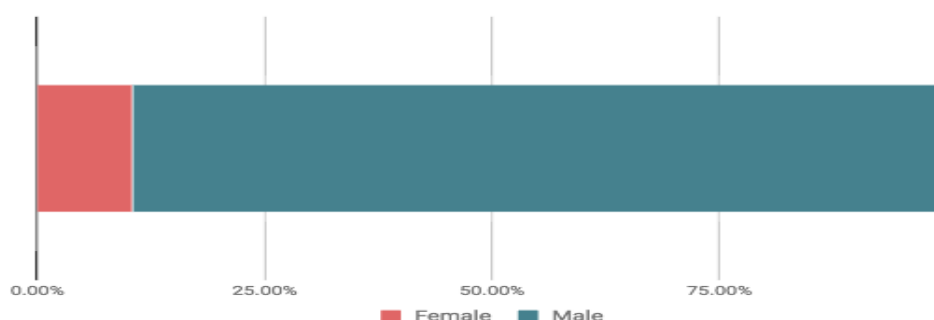
2.4. Chatham House rule

The **Chatham House Rule**[1] has been used to protect the identity of all contributors. Quotes included in this report are attributed by organisational affiliation only.

2.5. Editorial independence

The NRO was scrupulous in ensuring the independence of the review process. Reviewers are particularly grateful for the logistical support provided by the NRO Executive Secretary and thank the NRO and the RIR staff for their cooperation. We are also grateful for the joint statement on the review prepared by the ASO AC and the NRO EC and ASO AC[2].

2.6. Note on terminology

Throughout this report the following organisations, organisations or committees connected to the functioning of the ASO are referred to in full or abbreviated form.

- **Number Resource Organization** (**NRO**) – The coordinating mechanism of the RIRs which acts collectively on matters relating to the interests of the RIRs.
- **Number Resource Organization Executive Council** (**NRO EC**) **–** The NRO Executive Council consists of one person selected by the Board of each RIR.
- **Number Resource Organization Number Council (NRO NC) –** The NRO Number Council is responsible for the provision of advice to the NRO Executive Council concerning the ratification of proposed global IP number resource allocation policies.
- **NRO Secretariat** – The NRO Secretariat handles operational responsibilities of the NRO.
- **Address Supporting Organization** (**ASO**) **–** ICANN Supporting Organisation with responsibility for reviewing and developing recommendations on Internet Protocol (IP) address policy and to advise the ICANN Board, established by MoU between ICANN and the Number Resource Organization (ASO MoU).
- **Address Supporting Organization Advisory Council (ASO AC**) **–** As per the ASO MoU, the ASO AC consist of the members of the NRO NC. The ASO MoU also specifies that the ASO AC shall define procedures for the selection of individuals to serve on other ICANN bodies, in particular on the ICANN Board. In addition, this body may provide advice to the ICANN Board.

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[1] Chatham House rule: https://www.chathamhouse.org/about/chatham-house-rule
[2] Statement of the NRO EC and the ASO AC Regarding the 2017 ASO Review: https://aso.icann.org/statement-of-the-NRO EC-and-aso-ac-regarding-the-2017-aso-review/

- **Empowered Community** (**EC**) **–** The Empowered Community is the non-profit association formed under the laws of the State of California consisting of the ASO, the ccNSO, the GNSO, the ALAC and the GAC.
- **Decisional Participant** – Decisional Participants are the organizations (ASO, ccNSO, GNSO, ALAC, and GAC) comprising the Empowered Community.
- **Decisional Participant Representative –** Decisional Participants act within the EC through their respective chair or another representative that they designate.
- **Empowered Community Administration** (**EC Administration**) – The collection of Decisional Participant Representatives are referred as the Empowered Community Administration.

3.   Historical context

The Address Supporting Organisation (ASO) came into existence in 1999 with the signing of a first Memorandum of Agreement (MoU)[3] between the recently formed 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 Network Coordination Centre) and the American Registry for Internet Numbers (ARIN)[4].

According to original ICANN Bylaws, responsibility for policy development within ICANN was delegated to three supporting organizations (SOs) - the Address Supporting Organization, the Domain Name Supporting Organization (DNSO), and the Protocol Supporting Organization (PSO) - each with responsibility for developing and recommending policies and procedures for the management of identifiers within their respective remit. Originally it was intended that each SO would be financially independent from ICANN[5].

Following the formal recognition of the Latin America and Caribbean Network Information Centre as an additional RIR, in 2002[6], and the creation of the Number Resource Organization (NRO)[7] as a global coordinating body for the RIRs, in 2003, a second MoU[8] was signed in October 2004. This second MoU which specifies "*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*" remains the main foundational document of the ASO.

3.1.   IANA Transition: CRISP Team

In the process leading up to the expiry of the IANA Functions contract between ICANN and the NTIA, November 2014, fifteen volunteers from the Internet Number Community were convened to form the CRISP[9] Team. Under the coordination of the NRO this team was tasked (inter alia) to describe:

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[3] ASO MoU (1999) https://aso.icann.org/documents/historical-documents/memorandum-of-understanding-1999/
[4] Resolutions Approved by the Board, Santiago Meeting (August 1999)
https://archive.icann.org/en/meetings/santiago/santiago-resolutions.htm
[5] Reviewers note that the ASO is, today, the only ICANN Supporting Organisation that is fully financially independent from ICANN, in conformity with the original designs for the ICANN organisation.
[6] IANA Report of Recognition of LACNIC as a Regional Internet Registry
https://www.iana.org/reports/2002/lacnic-report-07nov02.html
[7] NRO MoU (2003)
https://aso.icann.org/documents/memorandums-of-understanding/nro-memorandum-of-understanding/
[8] ASO MoU (2004)
https://aso.icann.org/documents/memorandums-of-understanding/memorandum-of-understanding/
[9] Consolidated RIR IANA Stewardship Proposal Team (CRISP Team): https://www.nro.net/nro-and-internet-governance/iana-oversight/consolidated-rir-iana-stewardship-proposal-team-crisp-team/

- The terms of the operational relationship of the RIRs with the IANA regarding the administration of Internet Number Resources.
- How policies under which IANA Numbering Services are developed within the Internet Number Community via an open, transparent and bottom-up policy development process,
- How the removal of NTIA oversight would affect the operational relationship between the RIRs and ICANN (as the current the IANA Numbering Services Operator).

The work of the CRISP team is an example of how the Internet Number Community is able to come together in response to requests from ICANN that relate to critical IANA functions, and indirectly to the operations of the ASO, but that are outside the ASO AC's narrow policy remit as described in the ASO MoU. It shows the adaptability and resourcefulness of Internet Number community. However, as discussed later in this report, it also raises the question of the types of activity carried out by the Internet Number Community that can be described as "ASO activities" and reviewed as such.

The final report of the CRISP Team was an opportunity for the Internet Number Community to reaffirm its satisfaction with and support for ICANN in its continuing role as IANA Numbering Services Operator:

> *"As noted in numerous NRO communications over the past decade, the RIRs have been very satisfied with the performance of ICANN in the role of the IANA Numbering Services Operator. Taking this into account, and considering the Internet Number Community's strong desire for stability and a minimum of operational change, the Internet Number Community believes that ICANN should remain in the role of the IANA Numbering Services Operator for at least the initial term of the new contract."[10]*

The preparation of the SLA was a further opportunity for the Internet Number Community to assert its commitment to supporting and enhancing the ICANN multistakeholder model:

> *"Shifting stewardship of the IANA Numbering Services to the Internet Number Community is an important step in acknowledging the maturity and stability of the multistakeholder governance model and in recognizing the success and de facto authority of that model under the current arrangement."*

3.2.   Service Level Agreement (SLA)

On 29 June 2016, during the ICANN 56 meeting in Helsinki, the five RIRs and ICANN signed a service level agreement (SLA) for the IANA numbering services. This documents the arrangements for the provision by ICANN of IANA numbering services following the IANA stewardship transition. The SLA came into effect with the expiry of the IANA contract, on 30 September 2016.

With the signing of the SLA a contractual relationship was established between the RIRs and ICANN, as the IANA Numbering Services Operator (ICANN). This added a layer of contractual responsibility to the signatories of the ASO MoU. One current ICANN Board member went as far as to suggest that:

> *"The signing of the SLA has sort of replaced the ASO MoU as a foundational document for the relationship between the RIRs and ICANN"*

In operational terms, however, the SLA was established to ensure the continuity of the relationship between the RIRs and ICANN, as defined by the MoU, with minimal changes to:

- Services provided by the IANA Numbering Services Operator (currently ICANN);
- The function of the ASO in connection with the development of global numbering policies;
- Oversight and accountability mechanisms in connection with IANA services and activities;

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[10] NRO to the ICG RFP for proposals on the IANA from the Internet Number Community: https://www.nro.net/wp-content/uploads/ICG-RFP-Number-Resource-Proposal.pdf

- The entities that provide oversight or perform accountability functions (the RIRs);
- The consequence of failure to meet performance standards (i.e termination or non-renewal of the contract).

Although the SLA was not intended to alter the nature of the relationship between the Internet Number Community and the IANA Numbering Services operator, it established contractually that the Number Community could, in the future, determine that number resources should be transferred to a different contractor. In such an event, the Internet Number Community would be responsible for ensuring the selection of another contractor using a fair, open, and transparent process, *"consistent with applicable industry best practices and standards"*.

The SLA was drafted by the five RIR staff based on the "IANA Service Level Agreement Principles" developed by the CRISP Team. As the SLA came into effect a new *IANA Service Level Agreement Review Team/Committee* was put in place by the NRO as an oversight and accountability mechanism.

This "relationship by contract" is characteristic of the unique way in which the ASO operates within ICANN.

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4. Review of the ASO: Purpose & Scope

This is the second independent organisational review of the ICANN Address Supporting Organisation (ASO). The first was conducted between July and December 2011.

4.1. Scope of ICANN SO/AC reviews

Periodic review of the ASO is formally called for by ICANN Bylaws[11]. Section 4.4 paragraph A of the Bylaws states that:

> *The 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 (as defined in Section 8.1) by an entity or entities independent of the organization under review.*

ICANN Bylaws further state that the goal of periodic reviews which are "*to be undertaken pursuant to such criteria and standards as the Board shall direct*", is to determine:

> *(i) whether that organization, council or committee has a continuing purpose in the ICANN structure,*
>
> *(ii) if so, whether any change in structure or operations is desirable to improve its effectiveness, and*
>
> *(iii) whether that organization, council or committee is accountable to its constituencies, stakeholder groups, organizations and other stakeholders.*

ICANN Bylaws indicate that the Government Advisory Committee (GAC) "*shall provide its own review mechanism*" although no specific arrangements are mentioned regarding the review of the ASO. The ASO Memorandum of Understanding, however, indicates that:

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[11] 'New' ICANN Bylaws (adopted May 2016)

With reference to the provisions of Article IV, Section 4 of the ICANN Bylaws, the NRO shall provide its own review mechanisms.

Finally, the present review of the ASO, as called for in Article 8 of the ASO MoU, should not be confused with the periodic review of the ASO MoU, called for in Article 9 of the MoU, which states that:

"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."

Although this report covers many aspects of the ASO MoU, its scope according to the Terms of Reference, is wider and includes:

"all functions undertaken by the ASO in support of ICANN, and in particular with regards to global number policy development and the appointment of individuals to various ICANN bodies including the ICANN Board. Additional known tasks undertaken by the ASO in support of ICANN [...] such as the development of procedures to make appointments to other ICANN bodies [are also covered].

4.2. Comment on the ASO review process and timeline

ICANN Bylaws are clear about the need to conduct regular independent reviews of all of its Supporting Organisations and Advisory Committees. However, for the sake of clarity regarding the review of the ASO, ICANN should ensure that its Bylaws are fully consistent with the ASO MoU and state that the NRO will be responsible for providing its own review mechanism.

Recommendation # 1: ICANN should consider updating its Bylaws to reflect the fact that the NRO will, like the GAC, and according to the ASO MoU, provide its own review mechanism for the review of ASO.

Since the adoption of the New ICANN Bylaws, in May 2016, we a note that a small update needs to be made to the ASO MoU regarding the relevant sections of the ICANN Bylaws relating to the independent review process.

Recommendation # 2: The NRO should consider updating the ASO MoU to reflect the fact that the appropriate section of the New ICANN Bylaws regarding Organizational Reviews is Section 4.4 (previously Article IV, Section 4).

The present review required an extended period of travel to attend five five RIR meetings and two ICANN meetings in order to conduct interviews. This left a relatively short period towards the end of the review process to produce a draft report, engage in community consultation and produce this final report. For future reviews of the ASO we would urge the NRO to adopt a longer timeframe that is in line with other ICANN SO/AC Reviews. We would also urge the NRO to adopt a formal review process that can be used for future reviews.

Recommendation # 3: The NRO should adopt a procedure for conducting periodic reviews of the ASO in line with processes used by the ICANN Organisational Effectiveness Committee.

4.3. 1st ASO Review: implementation of recommendations

The previous review of the ASO was conducted by ITEMS International between July and December 2011. The final report[12], which contained twenty-six recommendations, was published on the ICANN website for public comment, in December 2011. The NRO subsequently produced its own considerations of the review recommendations which were submitted in the form of a letter to the chair of the ICANN Structural Improvements Committee, on 30 April 2012[13]. The ICANN Board of Directors resolved that the review process had been duly completed during a special meeting of the Board, on 17 November 2014[14].

As part of the present review we have considered the extent to which these recommendations were implemented, either directly or indirectly (i.e. using another course of action than the one specifically mentioned in the recommendation). We note that the NRO used a clear and consistent rationale for accepting or rejecting recommendations, and recognize that the NRO had no obligation to implement them.

1) **Recommendations regarding clarifications and updates to the ASO MoU**

Recommendation	Implementation status (Reviewers' determination)
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 EC.	**Partially implemented**. The ASO MoU has not been updated since the last review, although we note that there are additional resources on the ASO website including a Q&A which provides some clarification regarding the separate roles of the ASO AC and the NRO EC. This is consistent with the NRO's commitment, following the review, to increase awareness-raising efforts within the ICANN regarding the specific roles in the ASO.
Recommendation 2: Update Attachment A of the ASO MoU to ensure that it is consistent with the description of the GPDP in the ASO AC Operating procedures	**Not implemented**. Attachment A of the ASO MoU has not been updated. The NRO's consideration of this recommendation was that ASO procedures should be consistent with the ASO MoU and not the other way round. However this recommendation remains valid in our view.
Recommendation 3: The signatories of the ASO MoU should mutually agree on a procedure on how the ASO AC should deal with a policy proposal that has been objected or rejected by the ICANN Board.	**Not implemented**. The NRO originally committed to entering into conversation with the ICANN Board to agree on such a procedure. However, we are not aware that this has taken place.
Recommendation 4: The signatories of the ASO MoU should mutually agree on a mediation procedure should the ICANN Board reject a re-submitted global policy proposal for the second time.	**Implemented**. It appears that paragraph 15 of the ASO MoU, has a corresponding procedure (Para. 6.6.2.5) in the Operating Procedures.

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[12] ITEMS International (Dec. 2011): *Review of the ICANN Address Supporting Organisation (ASO). https://www.nro.net/wp-content/uploads/ASO-Review-Report-2012.pdf*

[13] NRO (Apr. 2012): *Response to the ASO Review Report of the ICANN Address Supporting Organisation (ASO).* https://www.nro.net/wp-content/uploads/ASO-AC-Response-NRO-FINAL.pdf

[14] ICANN (17 Nov. 2014): *Approved Board Resolutions. Special Meeting of the ICANN Board.* https://www.icann.org/resources/board-material/resolutions-2014-11-17-en#1.d

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.	**To be implemented**. We have not found that such an agreement, as called for in Para. 16 of the ASO MoU has been executed, although we note that the ASO AC has agreed to develop procedures for this eventuality.
Recommendation 6: Update Section 6.6.1 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.	**To be implemented**. The ASO AC OP have not been updated in line with this recommendation, although currently this does not appear to us to be a high priority.
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.	**To be implemented**. Section 6 of the ASO AC OP does not currently contain a complete description of the GPDP including attachment A of the ASO MoU. We are making a similar recommendation to ensure that the descriptions of the GPDP in the ASO MoU and the ASO AC OP are consistent with each other.

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

Recommendation	Implementation status (Reviewers' determination)
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.	**Not implemented**. Although the NRO formally accepted this recommendation, our impression is that most meetings of the ASO held during ICANN meetings are closed to non-ASO registered participants.
Recommendation 9: During ICANN meetings, the ASO should continue to organise, on an experimental basis, short joint sessions with interested SOs, ACs and GNSO constituencies.	**Implemented**. It appears that paragraph 15 of the ASO MoU, has a corresponding procedure (Para. 6.6.2.5) in the Operating Procedures.
Recommendation 10: The agenda for the NRO/ASO workshops at ICANN meetings should be enriched, avoiding presentations that are already available in the RIR, ASO and RIR websites.	**Partially implemented**. We note, however, that no presentations on the work of the ASO have been added to the ASO website since 2012.
Recommendation 11: The presentation of the ASO Report during ICANN meetings should always be delivered by the Chair of the Address Council.	**Implemented**. The NRO agreed to this recommendation insofar as the report consists predominantly of issues that are in scope for the ASO AC

3) Recommendations regarding enhancements to the ASO website

Recommendation	Implementation status (Reviewers' determination)
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.	**Implemented**. There is still no specific mention of the NRO on the ASO website, although there is a prominent link to ASO MoU.

Recommendation 13: A detailed FAQ of the ASO should be added to the ASO website.	**Fully implemented**. The website now contains a comprehensive FAQ (although we note that this still contains very little information on the role of NRO EC in its capacity to conduct activities in the name of the ASO).
Recommendation 14: A fully researched, documented and referenced history of the ASO should replace the existing history page of the ASO website.	**Implemented**. We note that the website contains a fairly detailed history of the ASO, although this has not been updated since 2013.
Recommendation 15: The ASO should translate the ASO's constituent documents into the main languages in use within ICANN and the addressing communities.	**Implemented**. We note that the ASO MoU and numbering policy documentation is now available in Arabic, Chinese, English, French, Russian and Spanish.
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.	**Implemented**. We note that the ASO website contains only a very small number of broken links, mostly to third party external sites.

4) Recommendations regarding enhancements to the ASO procedures

Recommendation	Implementation status (Reviewers' determination)
Recommendation 17: The procedures of the ASO should be labelled 'ASO' procedures, not 'ASO AC procedures'	**To be implemented.** Although the NRO agreed in principle to this recommendation, the operating procedures are still labelled ASO AC procedures.
Recommendation 18: A procedure for the appointment of NomCom members should be added to the ASO Procedures.	**Indirectly implemented.** We note that the ASO has developed a separate procedure to "Appoint Members to Various Bodies". We assume this covers the appointment of NomCom members.
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.	**Not implemented.** The NRO agreed to this recommendation in principle, although given the evolution of the ICANN, notably since the termination of the IANA contract, this recommendation is no longer relevant.
Recommendation 20: A procedure for advising the ICANN Board on the recognition of new RIRs should be added to the ASO Procedures.	**To implemented.** To our knowledge such a procedure has not been developed. We understand that this is a low priority given the low probability of a new RIR being needed recognized.

5) Recommendations to the ICANN Board

Recommendation	Implementation status (Reviewers' determination)
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.	**Implemented**. It is our understanding that the ICANN Board feels free to seek advice from the ASO or NRO on a range of issues besides 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.	Implemented. There do not seem to be any conflicts between the ATRT 1 report recommendations and ICANN Board Procedures.

6) Recommendations to the NRO Executive Council

Recommendation	Implementation status (Reviewers' determination)
Recommendation 23: The NRO Executive Council should help to empower the Policy Proposal Facilitating Teams (PPFT) in their facilitating role.	Implemented. The NRO is committed to clarifying the role of the PPFT in the ASO Procedures.
Recommendation 24: The NRO Executive Council should respond to the ICANN Board's request to react to the ATRT Report as soon as possible.	Unverified. A thorough search of the NRO archives has not revealed any documentation on this matter.

7) Joint recommendations to the ICANN Board and the NRO Executive Council

Recommendation	Implementation status (Reviewers' determination)
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.	Implemented. The FAQ is now available on the ASO website.
Recommendation 26: The ICANN Board and the NRO EC are encouraged to agree on the content of a documented history of the ASO to be posted on the ASO website.	Implemented. A documented history of the ASO has been published on the website of the ASO.

4.4. Review assessment: 1st ASO Review

Our assessment is that the previous ASO Review process was conducted and followed up in a thorough, transparent and well-documented manner. The implementation or part-implementation of many of the recommendations have led to certain changes, notably to the ASO website and ASO AC Rules and Procedures, that can be said to have increased the ASO's overall accountability and transparency over the past six years.

5.   Purpose and Rationale of the ASO

In this section we consider the purpose and rationale of the ASO as defined in ICANN Bylaws and the ASO MoU.

5.1.   ICANN Bylaws: Function and purpose of the ASO within ICANN

Article 1, Section 1.1, Paragraph III of the Bylaws specifies that the mission of the ICANN organisation as a whole covers:

> *"[The] Coordination, allocation and assignment at the top-most level of Internet Protocol numbers and Autonomous System numbers. In service of its Mission, ICANN provides registration services and open access for global number registries as requested by the Internet Engineering Task Force ("IETF") and the Regional Internet Registries ("RIRs") and (B) facilitates the development of global number registry policies by the affected community and other related tasks as agreed with the RIRs."*

The role and advisory function of the ASO, as one of the three ICANN Supporting Organisations (SO), is described in Section 9.1 of the Bylaws:

> a.   *The Address Supporting Organization ("Address Supporting Organization" or "ASO") shall advise the Board with respect to policy issues relating to the operation, assignment, and management of Internet addresses.*

This is similar to the definition of the ASO's purpose as described on the ASO website;

> *The purpose of the ASO is to review and develop recommendations on Internet Protocol (IP) address policy and to advise the ICANN Board.*[15]

ICANN Bylaws emphasize the advisory as opposed to the policy development role of the ASO within ICANN. This sets the ASO apart from the other two ICANN Supporting Organisations (SOs) - the GNSO and the ccNSO - that are described as *"policy development bodies"* with responsibility for *"developing and recommending global policies"* to the Board.

The ASO also differs from the other two ICANN SOs since its global policy processes are almost entirely conducted at a regional level, under the coordination of the Regional Internet Registries (RIRs). Global policy proposals that need to be ratified by the ICANN Board of Directors, and the other tasks that the ASO AC performs, only come up on rare occasions.

In addition, the ASO is limited in scope to global policies regarding Internet number resources whereas the other bodies within ICANN are mainly concerned with Internet naming issues.

In 2015, ARIN requested an informative memo from their legal counsel regarding the makeup of the NRO and its role in acting as the ASO[16]. This stated that:

> *"The NRO is a stand alone body that will negotiate the ASO MoU with ICANN." Finally, the ASO MoU itself recognizes that the NRO and ICANN are distinct entities and disclaims that it imposes any special relationship or duty on either party, "including as an agent, principal or franchisee of any other party." Thus, the history and public pronouncements of the NRO plainly demonstrate that it is an independent legal entity, not simply a creature of ICANN's governance."*

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[15] ASO website: *About the ASO* - https://aso.icann.org/about-the-aso/
[16] Caplin and Drysdale (2015) *NRO's Status as an Unincorporated Association and Role as an ICANN Designator*
https://www.nro.net/wp-content/uploads/ARIN-Memo-re-NRO-Status-as-an-Unincorporated-Association.pdf

5.2.   ASO MoU: Role of the NRO in the operations of the ASO

ICANN Bylaws and the ASO MoU are mutually defining. Whereas ICANN Bylaws state that the ASO shall be an entity established by MoU between ICANN and the NRO, for its part the ASO MoU establishes that the NRO will fulfil the role, responsibilities and functions of the ASO as defined in ICANN Bylaws.

The ASO MoU states that the ASO AC will be comprised of the members of NRO Number Council (NC) and that it will be responsible for the main organisational roles of the ASO, namely:

- Undertaking a role in global policy development;
- Providing recommendations to the Board of ICANN concerning the recognition of new RIRs;
- Defining procedures for the selection of individuals to serve on other ICANN bodies;
- Providing advice to the Board of ICANN on number resource allocation policy, and;
- Developing procedures for conducting business in support of their responsibilities.

The main function of the NRO Executive Council (NRO EC) in connection with the operations of the ASO, while not listed, can be summarised as:

- Providing Secretarial services to support the functions described in the MoU.
- Approving the procedures that are developed by the ASO AC for conducting business in support of their responsibilities.
- Coordinating with the ASO AC regarding the development and ratification of Global Policies in accordance with the Global Policy Development Process.
- In the event of a dispute with ICANN regarding the MoU, arranging arbitration via ICC rules.
- Providing its own Review mechanisms.

We have represented the separation of powers within the ASO between the ASO AC as follows:
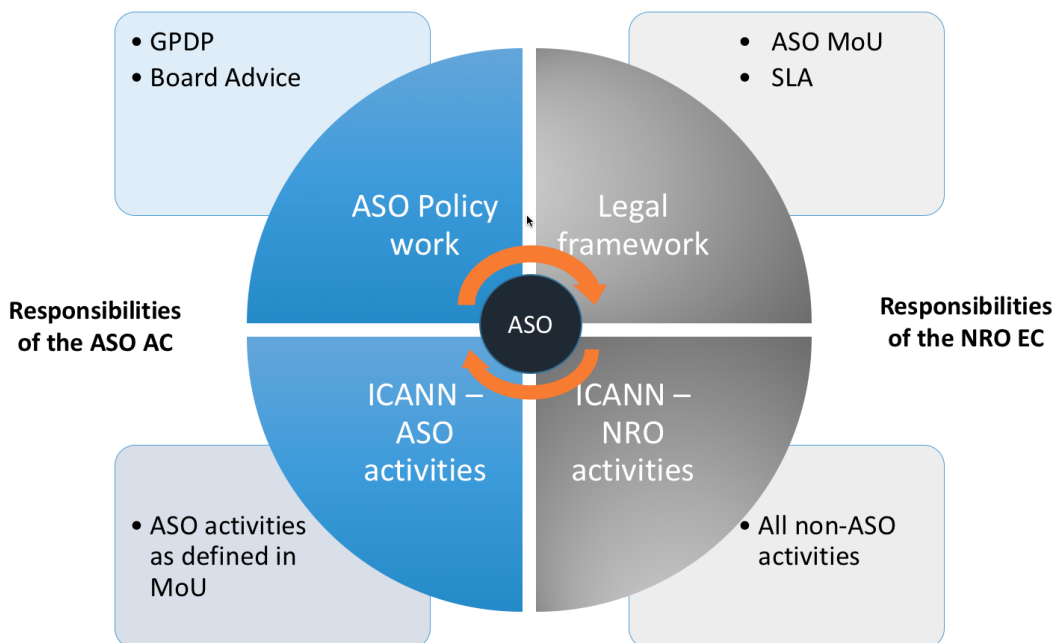
Source: ITEMS International

The ASO AC is the ASO's policy body with a largely advisory capacity, whereas the NRO EC has an oversight role with responsibility for all other types of business not covered in the ASO MoU.

5.2.1. Separate roles of the ASO AC & the NRO EC

Jointly, ICANN Bylaws and the ASO MoU have served as robust foundational documents for the ASO that have stood the test of time. Yet, within ICANN and parts in the Internet Number community itself there is considerable misunderstanding regarding the respective roles of the ASO AC and the NRO EC. There are those who see the ASO as essentially comprised of the fifteen-member Address Council (AC) with ancillary support and a critical oversight function provided by the NRO, and others who see the organisation more as a twenty-person, bicameral body (15 ASO AC + NRO EC) with a separate set of responsibilities for each "chamber".

These differences of perception regarding ASO leadership inevitably lead to different interpretations regarding the ASO's scope for action within ICANN.

- If the ASO is understood to be essentially composed of the ASO AC, its scope for action is very narrow and limited to global numbering policies, and a limited set of functions within ICANN.
- If the ASO is understood to be composed of the ASO AC and the NRO EC its scope for action is considerably larger since it is not limited to the ASO's main policy function and includes all tasks undertaken by the NRO in connection with ICANN.

In a joint statement from the ASO AC and the NRO EC, submitted during the review process, the following disambiguation was provided:

> *"The numbering community is represented within the ICANN community by two different bodies, the ASO and the ASO AC. The NRO, when acting within ICANN, is referred to as the ASO, and the NRO's Number Council is referred to as the ASO AC."*

A member of the ASO AC explained the separate organisational roles within the ASO as follows:

> *"What's interesting is that the ASO AC sits within the ASO, and the ASO is not defined in the ASO MoU except for one line. One statement in the ASO MoU says that the NRO performs the role of the ASO. The NRO MoU says that the NRO consists of the NRO EC, the NRO NC and the secretariat."* (Member of the ASO AC)

Our findings suggest that a certain confusion regarding the separate roles of the ASO AC and the NRO EC may have become exacerbated in recent months, notably since the establishment of the ICANN *Empowered Community* which has been associated with an increase in the demands being put on the ASO.

Our impression is that the separation of powers between the ASO AC and the NRO EC is likely to become further obscured in years ahead unless clear lines of responsibility are drawn at this juncture.

At some point, the NRO will need to decide whether it is in its best interests to maintain the status quo, or whether it takes pre-emptive steps

What about the profiles of the leadership of Supporting Organizations and Advisory Committees, ICANN Board members, and the ICANN organization?

The profiles of the ICANN Board can be found here:
https://www.icann.org/resources/pages/board-of-directors

The names or profiles of the Supporting Organizations and Advisory Committees leadership can be found here:

Address Supporting Organization (ASO)
https://aso.icann.org/advisory-council/address-council-members/

Country Code Names Supporting Organization (ccNSO)
https://ccnso.icann.org/about/council.htm

In this recent post ICANN posted information about all of its constituent bodies, including the ASO. Because only members the ASO AC are listed, a casual reader might be forgiven for thinking that the ASO is made up of the ASO AC members only.

to remove any questions regarding the mission and separate role of the ASO AC and the NRO EC. In Section 9 we propose three separate courses of action for the ASO in the medium to long-term, ranging from maintaining the status quo to the adoption of a two "house" ASO Council.

5.2.2. Interview and survey findings

When asked about the relevance of the ASO MoU, a majority of interviewees (52.7%) indicated that it still provides an accurate description of the role and function of the ASO, a non-trivial 21% per cent that it does not, and a slightly smaller number (19.7%) that they "don't know".

Survey Question [All respondents]: Does the ASO MoU adequately describe the role and function of the ASO within ICANN?

Other
6.3%

Don't know
19.7%

No
21.3%

Yes
52.7%
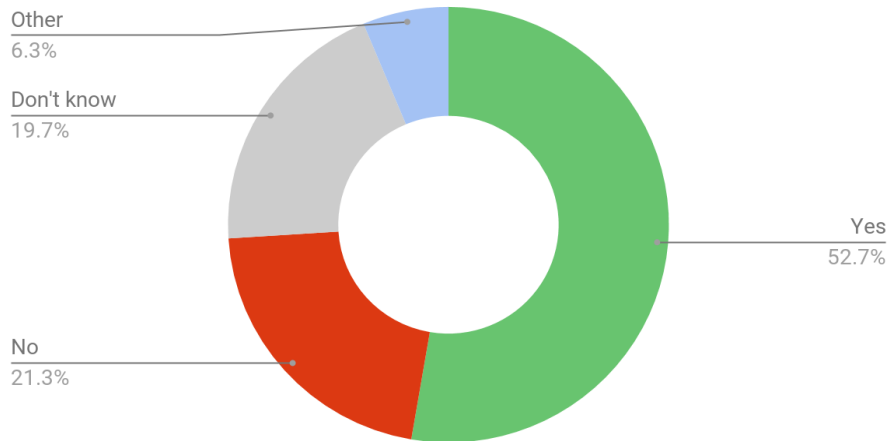
When asked whether the rationale for the ASO as spelled out in the ASO MoU needs to be updated post-IANA transition, notably in light of the creation of the ICANN *Empowered Community,* 50% thought that it should, 32% "maybe", and only 18% that it should not. This result and numerous subsequent conversations informed our thinking about the status of the current ASO MoU, and whether it is due for an update.

Survey Question [All respondents]: Does the rationale for the ASO as spelled out in the ASO MoU need to be updated post IANA transition in light of the

Maybe
32.0%

No
18.0%

Yes
50.0%
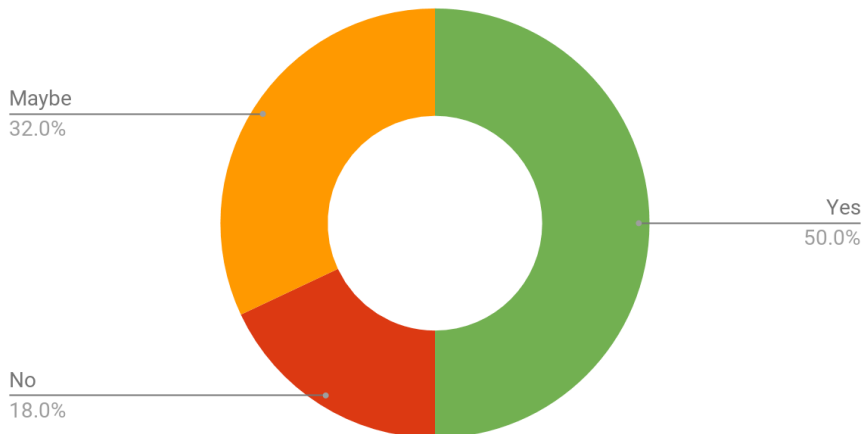
On the question of the independence of the ASO AC from the NRO EC a majority of respondents (66%) had little or no concern in this regard. However, a significant 23% expressed varying degrees of concern, and 11.5% that they "don't know".

Survey Question [All respondents]: Is there sufficient separation between the ASO AC and the NRO Executive Committee to ensure that the ASO AC remains independent in its decision making?

No, absolutely not
2.0%

No, not really
21.2%

Don't know
11.5%

Yes, somewhat
19.2%

Yes, absolutely
46.2%

Here the number of negative replies was larger than expected. This may be the consequence of a recent Board selection process in which unusual circumstances meant that new procedures for the ASO AC were needed that had to be approved by the NRO EC. It was felt by some that the NRO EC had a larger role in the election process than the MoU envisions. In a follow up long form survey answer, one member of the ASO AC indicated that:

"It is occasionally difficult to get approval to procedure changes. There is some politics at play. This has not been an issue in our region, but some members of other regions have been pressured to vote a specific way. This is why we moved to ranked ballots."

While we heard from a number of respondents that the Board selection process has regional political influences, we trust that the new ranked ballot procedures will mean that future Board selection processes will run more smoothly.
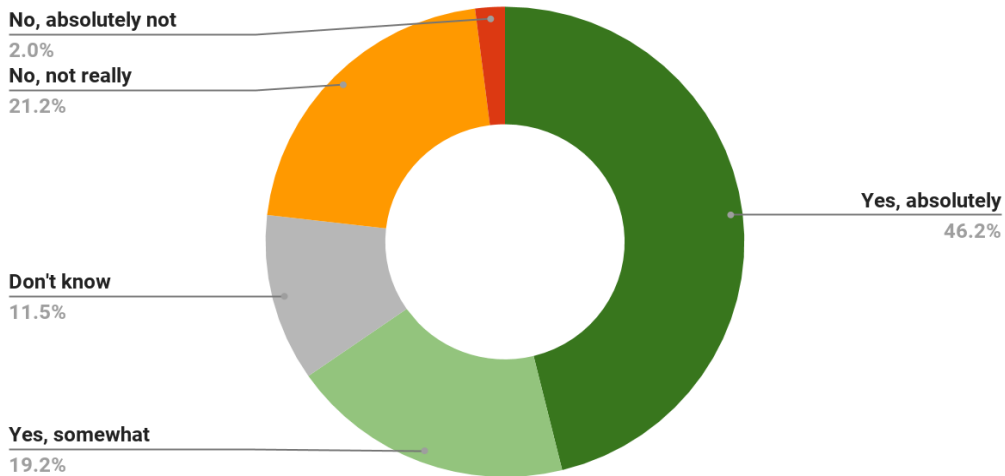
5.3.   Review assessment: Status of the ASO MoU

Many of those interviewed, a majority of whom are closely associated with the operations of the ASO, indicated that they had limited knowledge of the ASO MoU, or that they had not consulted it in recent years. Nonetheless, for the most part, they felt that it was a useful and still largely valid foundational document for the ASO. If anything, a lack of knowledge regarding the ASO MoU, was seen as a positive sign that the relationship between ICANN and the NRO is strong and stable.

The ASO MoU, in its current form, has stood the test of time. It has served as an accurate description of the limited role and function of the ASO within ICANN, and the respective responsibilities of the NRO and ICANN. However, fourteen years after it was signed, and in view of recent changes in the organisational structure of ICANN, certain aspects of the ASO MoU may need to be updated.

These include:

- Addition of AFRINIC as a signatory;
- Updating of Appendix A of the MoU, to ensure that it is fully consistent with the description of the GPDP in the ASO AC Operating Rules and Procedures;
- Removal of Appendix B which no longer has any validity.

In addition, the NRO should consider whether the ASO MoU needs to be updated in light of the establishment of the ICANN *Empowered Community.* If so updates might concern:

- Responsibility for the selection of a Designated Representative of the ASO as a Decisional Participant in the *Empowered Community;*
- Exceptional circumstances (e.g. the removal of a Board Director) in which the the ASO AC and the NRO EC might be given joint decision-making powers.

Recommendation # 4: The signatories of the ASO MoU should consider updates to the MoU including i) the addition of AFRINIC as a signatory, ii) the removal of Appendix B. v) updates in connection with the responsibilities of the ASO as a Decisional Participant in the ICANN *Empowered Community.*

Upon completion of the present review process we are recommending that the NRO and ICANN initiate their own internal assessment of the ASO MoU, as called for in Article 9 of the MoU. This would be a good opportunity to discuss issues such as:

- The relevance of the current ASO MoU,
- Amendments to the MoU that may be necessary in light of organisational changes that have occurred since 2004, notably the creation of the ICANN Empowered Community,
- The problems in terms of accountability that result when the ICANN community changes its expectations of SOs and ACs (in this case the ASO),

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Recommendation # 5: Upon completion of every independent review of the ASO, the NRO and ICANN should initiate discussions, as per Article 9 of the MoU, to examine results and consequences of their cooperation. The parties should determine if the ASO has a continuing purpose within the ICANN structure, and re-evaluate the MoU accordingly.

5.4.   Continuing purpose of the ASO within ICANN

A key objective for ICANN Reviews is to determine whether each Supporting Organisation (SO) or Advisory Committee (AC) has a *continuing purpose* within the ICANN structure and, if so, whether any change in structure or operations is desirable to improve its effectiveness. The wording of ICANN Bylaws suggests that the question of *continuing purpose* can be addressed in much the same way for each ICANN SO or AC. In our view, however, the ASO's unique organisational structure, and key differences in the way it operates within ICANN, call for a different interpretation of this question.

For the other ICANN SOs and ACs that, for the most part, came into existence with the creation of ICANN, the question of their *continuing purpose* points to their ongoing relevance and operational effectiveness within ICANN. For the ASO, however, that came into existence as an ICANN SO following the signing of the first ASO MoU, and the integration of a pre-established and fully operational system of policymaking for address space, we would suggest that the question of its continuing purpose relates primarily to the strength and current validity of the ASO MoU.

In this section we consider whether the signatories of the ASO MoU continue to recognize their mutual interest in cooperation going forward (failing which it is understood that the NRO could ensure the ASO's primary policy function independently of ICANN, or in partnership with another international partner). Based on what we gathered during interviews, we also make a comparative assessment of the value that ICANN and the NRO perceive in maintaining the ASO in place, both in terms of the furtherance of ICANN's mission regarding Internet identifier systems, and the accountability function that is fulfilled on behalf of the NRO and global Internet Number community.

5.4.1. *Purpose and value of the **ASO***: comparative analysis*

The following table presents a comparative analysis of the purpose and value of the ASO for ICANN and the Internet Numbers community. This is based on the tasks of the ASO AC as enumerated in the ASO MoU, and Reviewers' perceptions, derived from what we heard during interviews.

Table 1.   RESPONSIBILITIES OF THE ASO AC AS LISTED IN THE ASO MoU

ICANN	NRO
1) Advise ICANN with respect to policy issues relating to the operation, assignment and management of Internet Addresses	
- Since ICANN may be consulted on these issues by Governments (GAC) and/or other SOs/ACs it is in ICANN's interest to provide answers that are in alignment with the Internet Number community.	- One of the main benefits of participation in ICANN is to ensure that all other stakeholders are regularly informed of numbering policy issues.
2) Provision of recommendations to the Board of ICANN concerning the recognition of new RIRs.	
- ICANN has been delegated significant authority to recognize the creation of new RIRs.	- With ICANN responsible for recognizing new RIRs, the NRO can give the assurance of greater transparency and avoid Conflict of Interest and anti-trust issues in the recognition of new RIRs.
3) Defining procedures for the selection of individuals to serve on other ICANN bodies, in particular on the ICANN Board,	
- This provides ICANN with expert volunteers on the Board and for other roles across the Community.	- Despite mixed opinions, the needs of the community are well served by having 2 Board Members to educate and provide expertise.
4) Provide advice to the ICANN Board on number resource allocation policy	
- Advice provided to the ICANN Board by the Internet Number community benefits ICANN by offering expert advice regarding numbering issues.	- Such advice benefits Internet Number community since it ensures that ICANN has a full understanding of numbering policy issues.
5) Define roles and processes supporting global policy development	
- The inclusion of the ASO within ICANN, gives the ICANN organisation additional legitimacy as a global coordinator of policy regarding Internet identifiers.	- Whereas the Internet Number community could accomplish this role independently of ICANN, participation in ICANN offers opportunities in terms of transparency and accountability.

5.4.2. Interview & survey findings

A majority of interviewees expressed confidence in the ongoing engagement of the Internet Number Community and continuing purpose of the ASO within ICANN. Yet many also felt that that the ASO representatives should only participate in ICANN processes that are directly in scope for the ASO.

Survey Question [All respondents]: Does the ASO have a continuing purpose in the ICANN structure?

Maybe
10.2%

No
6.8%

Yes
83.1%
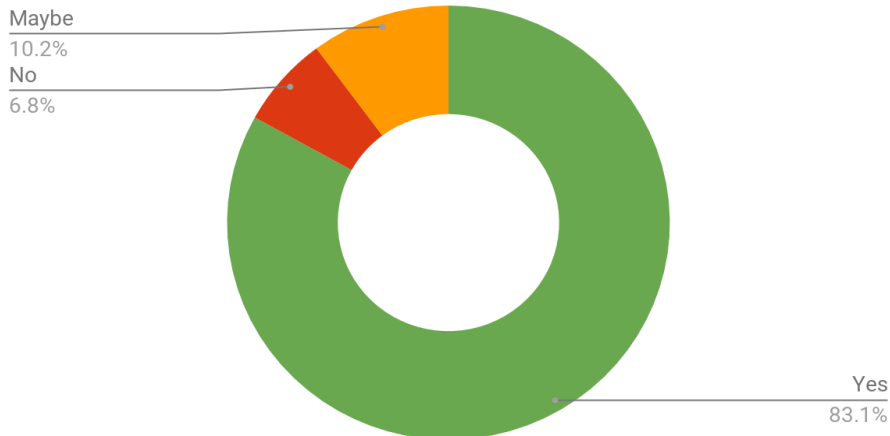
The minority view, however, should not be ignored. It is a view which we heard expressed on several occasions, including from senior, experienced members of the Internet Number Community, who believe that the operations of the ASO are a suboptimal use of volunteer time and resources, and that the numbers community could function perfectly well independently of ICANN. This comment from a senior member of the Internet Number community sums up this view:

When thinking about the ASO, its effectiveness and construction, we should first ask, "why does the RIR community need to participate in ICANN at all? How does network operations benefit from ICANN being at all involved in the work the RIRs perform?" ICANN was established in the late 1990s as part of an effort to decentralize and de-Americanize certain control points of the network, namely the activities of the IANA. It is almost 20 years later, and in the addressing community specifically, there is an argument that we don't need ICANN or even an IANA. Large allocations of IPv6 aggregates, AS number blocks, and even remnants of IPv4 aggregates, can easily be cooperatively managed by the five RIRs. The NRO is well built, has full-time staff, and is accountable to the addressing community. So bringing this back to the ASO, what is the real benefit of the ASO to the addressing community? Why do 15 people need to be on it - what is it they deliver that directly helps engineers and leaders operate their networks? The answer is there is no point to the ASO except to select ICANN board members, and there is no direct benefit that ICANN board members, or ICANN itself, provides to the addressing community.

A non-trivial minority of people we spoke to about the value of the relationship between ICANN and the NRO suggested that changing the relationship may be desirable at some point in the future. However, most feel that due to the recent commitment to the *Empowered Community*, now is not the time to consider such a change.

A more nuanced minority opinion is that the other technical communities (IETF, TLG, DNS-OARC, etc.) interact with ICANN and help address technical questions of ICANN participants without being a Supporting Organization (SO). Why couldn't this be the case for the NRO? This minority feel that continuing as a fully-fledged ICANN SO may not be the best option for the ASO, and see the comparative advantages of switching to an ICANN Advisory Committee (AC) or other type of liaison body.

Similar proposals included:

1. Converting the ASO from an ICANN Supporting Organisation (SO) to an ICANN Advisory Committee (AC),
2. Moving the Internet Number community into a model that the IETF currently uses in ICANN (and various permutations of this model),
3. Severing the relationship with ICANN altogether.

However, our assessment is that these proposals do not have significant support across the Internet Number Community. We do we do not see the advantages of these alternative models over the status quo. More important to most respondents are the benefits of participation in a larger Internet Governance ecosystem.

5.5. Review assessment: Continuing purpose of the ASO

Our findings suggest that the ASO is one of the lesser-known Supporting Organisations within ICANN. Yet, at the same time, it is widely perceived to be one of the better-organised and efficient parts of the ICANN system. A majority of interviewees, including ICANN Board Members, ICANN Executive Staff, NRO/RIR leadership and the ASO Address Council itself, expressed broadly favourable views regarding the way in which the ASO conducts its operations, and a high degree of confidence in its leadership structures.

Unsurprisingly, from the ICANN side, there is strong support for the ongoing collaboration with the NRO. In his public address at ARIN 39, ICANN CEO Göran Marby conveyed the organisation's appreciation for the engagement of the the Internet Number community within ICANN.

"Every time I go to someone outside our small world, I speak about the three different pillars that actually makes this part of the Internet working. And I say that we are three, equal partners in this one. You have the protocol community, you have the numbers community, and you have the names community. And we have to work together.[17]"

Göran Marby, ARIN 39, April 2017

The majority view within ICANN and Internet Number community leadership is that the ASO has a critical function within the ICANN system, and that its operations should be maintained going forward.

We did hear of concerns within the Internet Number community regarding the increasing amount of volunteer time that ICANN engagement seems to require, much of which is of marginal direct interest to the Internet Numbers Community. The NRO will need to regularly evaluate these concerns, and act pre-emptively, if necessary, to ensure that the benefits of the ICANN system are not perceived to be outweighed by the "costs" of engagement.

In the meantime, there is a mutual commitment on the part of ICANN and the NRO to maintain the ASO, and a broadly shared view that the ASO has a solid basis and continuing purpose within ICANN.

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[17]You https://www.youtube.com/watch?v=PHXRaAy-mYw
Transcript: https://www.arin.net/vault/participate/meetings/reports/ARIN_39/ppm2_transcript.html#anchor_11

6. Organisational effectiveness of the ASO

In this section we consider how effective the ASO has been in respect of its core mission to *"review and develop recommendations on Internet Protocol (IP) address policy and to advise the ICANN Board"[18]*. We also consider a range of activities carried out by the NRO in connection with the operations of the ASO but which extend beyond this narrowly defined remit. As we have learned, the NRO EC branch of the ASO, including RIR staff, regularly conducts activities in connection with the ASO's basic function and/or status as an ICANN Supporting Organisation, that should also be taken into account.

6.1. Coordination between the ASO AC and the NRO EC

The ASO AC and the NRO EC jointly form the ASO leadership structure. Coordination between the two bodies regarding the ASO's primary policy advice function is conducted according to established procedures. Typically, coordination efforts take the form of a joint remote participation or face-to-face meeting to ensure that due process has been followed in the five RIR regions in the elaboration of a global policy proposal. In practice, however, this type of coordination work is rarely conducted due to the exceptionally rare occasions on which global policy proposals rise to the level of the ASO.

In recent years, it appears the bulk of coordination work between the ASO AC and the NRO EC has concerned organisational matters that are not specifically defined in the ASO MoU. These include matters related to the transition of IANA Functions Stewardship, and various responsibilities connected to the ASO's role as an ICANN Supporting organisation. In the absence of formal organisational guidelines, this type of coordination activity has been conducted informally, in joint meetings of the ASO AC and the NRO EC and on the mailing lists.

The question that is raised, here, is whether such ASO AC / NRO EC coordination meetings should be encouraged as an efficient means of dealing with ICANN-related matters that are unrelated to the ASO's policy function, or whether, on the contrary, they are symptomatic of the way in which ASO leadership is increasingly being drawn into ICANN concerns, and away from the ASO's core mission.

In Section 9 we propose three non-prescriptive options the ASO might consider going forward. These range from maintaining the status quo to establishing a two-house 'ASO Council' in which the separate roles of the ASO AC and the NRO EC would be more clearly presented.

6.1.1. ASO Address Council

As stated above (Section 5.2) ICANN Bylaws state that *"the ASO shall have an Address Council, consisting of the members of the NRO Number Council"*. The two main functions of the ASO AC are:

- To advise the Board with respect to policy issues relating to the operation, assignment, and management of Internet addresses, and,
- To nominate individuals to fill Seats 9 and 10 on the Board.

The ASO MoU specifies that ASO AC shall be responsible for:

1. Undertaking a role in the global policy development process as described in attachment A of the MoU.
2. Providing recommendations to the Board of ICANN concerning the recognition of new RIRs.
3. Defining procedures for the selection of individuals to serve on the ICANN Board, and other ICANN bodies, and implementing any roles assigned to the Address Council in such procedures.

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[18] ASO Website: "About the ASO" https://aso.icann.org/about-the-aso/

4. Providing advice to the Board of ICANN on number resource allocation policy, in conjunction with the RIRs.
5. Developing procedures for conducting business in support of ASO AC responsibilities, in particular for the appointment of an Address Council Chair, and definition of the Chair's responsibilities.

The first, second and fourth of these roles are rarely carried out since they are a function of the frequency with which global policies, new RIRs and advice to the Board regarding IP address policies are actually required. The last global policy to be ratified was in 2012[19], and the last RIR to be recognized was AFRINIC in 2005[20]. Hence, the main operational responsibility of the ASO AC in recent years has been to appoint individuals to the ICANN Board of Directors and Nominating Committee (NomCom), and to develop their own procedures.

All operational responsibilities of the ASO AC have been conducted in strict accordance with their operating rules and procedures. We simply note that, to date, the ASO AC has not defined the responsibilities of the ASO Chair, as required by the MoU (See Section 7.3.1).

6.1.2. NRO EC and RIR Staff

As noted (Section 5.2) the NRO EC has a well-defined set of responsibilities in connection with the ASO's primary policy function within ICANN. In addition to these, there are a range of activities that are routinely undertaken by the NRO EC and RIR staff, that are not specified in ICANN Bylaws or the ASO MoU. Examples of these are:

- Work of the CRISP Team.
- Other IANA related issues with IANA / PTI staff
- Participation of RIR staff in ICANN Cross-community working groups (CCWG)
- Participation of RIRs in ICANN activities / plenary sessions to promote awareness of numbering issues among GAC, ICANN Board, ALAC, SSAC, RSSAC.
- Liaising with other ICANN bodies on various cooperative activities including, outreach, communications and capacity building (e.g. GSE team).
- Work at regional levels in coordination with ICANN regional offices (e.g. APAC, EMEA, LAC)

What we have found is that the range of activities in which representatives of the Internet Number Community are regularly involved within ICANN is significantly wider than the narrow scope of the ASO as described in ICANN Bylaws and the ASO MoU. The rationale that we have heard for conducting these activities is sound: insofar as IP addressing questions and issues are raised by ICANN stakeholders within the ICANN environment, it is important that the RIRs are available and present in order to provide accurate and authoritative answers. However, since these activities are, for the most part, conducted outside of a formal organisational framework there are no metrics to assess whether they are relevant or consistent with the needs of the Internet Number community within the ICANN context.

In other words, how does the NRO decide how much and what type of work they agree to undertake? Formalizing the list of agreed tasks between ICANN and the Internet Number resource community would serve to better define the relationship as one that is based on clearly identified needs as opposed to the dynamics of the multistakeholder system.

6.2. Interview & survey findings

Interviewees were asked if the support provided by the NRO was sufficient and consistent with the needs of the ASO. With an 81% positive and only 5% negative response rate, it is clear that the Executive Secretary, the NRO EC and RIR staff are seen as doing a greatly valued job in support of the ASO.

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[19] Global Policy for Post Exhaustion IPv4 Allocation Mechanisms by the IANA (Ratified 6 May 2012)
[20] ARFINIC MoU (May 2005): https://aso.icann.org/documents/memorandums-of-understanding/AFRINIC-memorandum-of-understanding/

Survey Question [All respondents]: Is the support provided by the NRO and the
RIRs to the ASO-AC sufficient and consistent with the needs of the ASO?

Don't no
16.0%
Not, absolutely not
1.0%
No, not really
2.0%
Yes, somewhat
10.0%

Yes, absolutely
71.0%
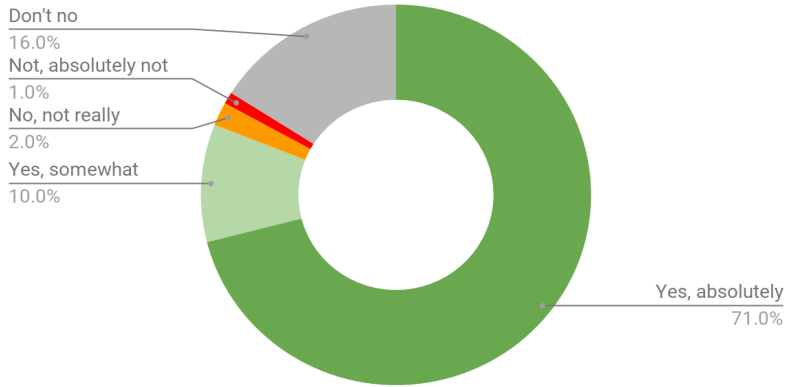
When asked if the ASO AC has been effective in its role in the global PDP as described in the ASO MoU, over three quarters of respondents responded positively. While a 25% negative response rate may seem high, many of these respondents added that it was because there have not been any global policies in several years. Their answer was meant to imply *"no, there haven't been any policies to ratify, so how could they be effective at a job they/we aren't doing".*

Survey Question [All respondents]: Has he ASO been effective in its role in the
Global PDP as described in the ASO MoU?

Don't Know
13.4%
No, not really
10.4%
Yes, Somewhat
13.4%

Yes, Absolutley
62.8%
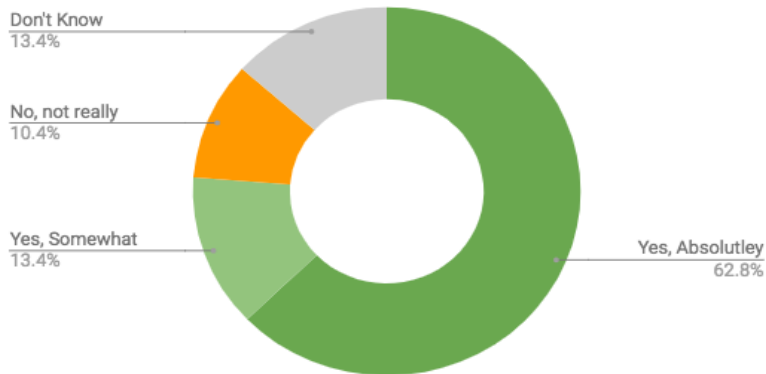
A similar pattern was seen in other questions about these rarely performed roles. In response to the question about how effective the ASO has been in providing advice the ICANN Board on number resource issues, number of negative replies can be attributed to the fact that the Board almost never asks for advice from the ASO AC or the NRO EC. Over seventy four percent of respondents responded positively to this question, while 21% responded that they "didn't know".

Survey Question [All respondents]: Has the ASO been effective in providing
advice to the Board of ICANN on number resource issues per the ASO MoU?

Don't Know
21.2%
No, absolutely not
1.5%
No, not really
3.0%
Yes, Somewhat
16.7%
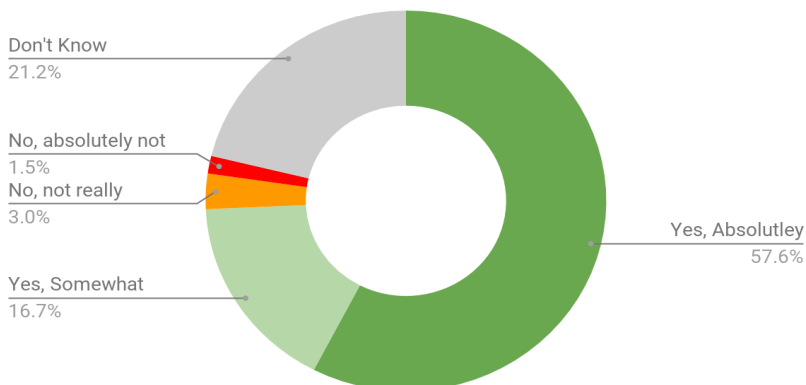
Yes, Absolutley
57.6%

On the question: *"Has the ASO been effective in providing recommendations of the Board of ICANN concerning the recognition of new RIRs?",* 59% of respondents replied positively ("yes, absolutely" or "yes, somewhat"), while only 13% reacted negatively, and 27% responded "don't know".

Survey Question [All respondents]: Has the ASO been effective in providing recommendations of the Board of ICANN concerning the recognition of new RIRs?

Don't Know
28.0%

No, absolutely not
4.0%

No, not really
9.0%

Yes, Somewhat
6.0%

Yes, Absolutley
53.0%
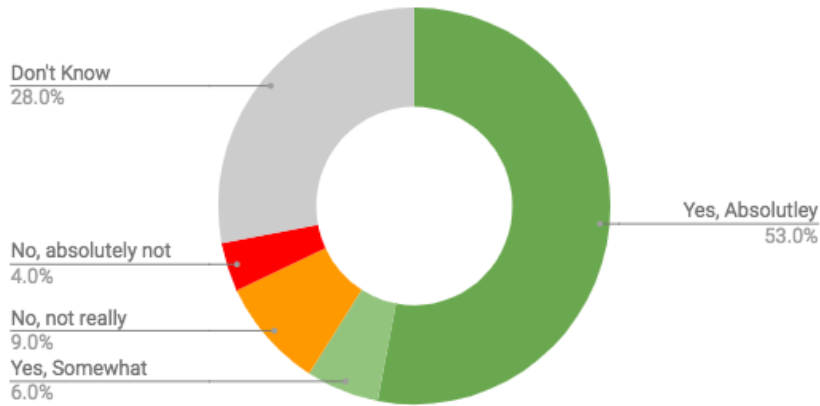
On the last role regarding the selection of individual to serve other ICANN bodies, (which ASO AC regularly carries out), the response is much more positive, with 95% responding positively overall, and less than 5% with negative responses. So the perception is that the ASO AC is very effective in carrying out the one responsibility they are required to fulfil on a regular basis.

Survey Question [All respondents]: Has the ASO been effective in defining and implementing procedures for the selection of individuals to serve on other ICANN bodies?

No, not really
2.4%

Yes, somewhat
21.8%

Yes, absolutely
74.5%
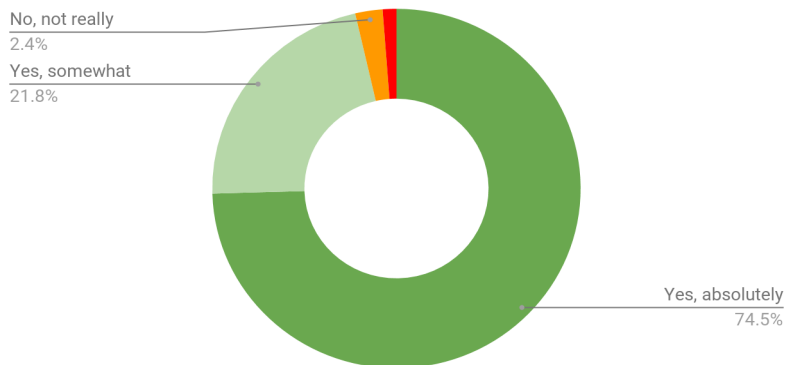
In summary, the ASO AC is seen as effective in the limited set of activities that it is charged with performing.

6.3.   Review assessment: Organisational effectiveness

In terms of overall organisational effectiveness, our assessment is that the ASO has a limited core mission. The ASO's leadership structures, as they were originally conceived, are appropriately tasked for this mission, and the main responsibilities of the organisation have been conducted in an efficient manner.

However, there are evidently concerns in parts of the numbering community that the ASO is increasingly required to engage in activities that, while useful to the ICANN multistakeholder system, have little to do with the ASO's original mission. A non-trivial number of people within the Internet Number community, including current ASO leadership, openly question the merits of maintaining an ICANN SO that does conduct any policy related work most of the time.

Our advice to the Internet Number community is that it needs to guard itself against the risks of

excessive involvement in ICANN processes that might, in the long run, have negative consequences for the viability of the ASO. To do so the NRO can choose to maintain the status quo and make it clear that it has the power to reject ICANN demands for increased engagement in its processes ("just say no"), or decide to clarify the role and function of the two leadership structures within the ASO, in order to clearly specify what is in or out of scope. We develop these strategic options in Section 9, *Options for the ASO going forward*.

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7.   Operational effectiveness of the ASO

In this section we consider how effective the ASO has been from an internal, procedural perspective. As noted, the ASO conducts all activities in relation to the roles and responsibilities of the ASO AC according to well established operating rules and procedures. The activities of the NRO EC in connection with the operations of the ASO are less formalised with established rules and procedures.

7.1.   Operating Procedures of the ASO AC

A comprehensive and regularly updated set of ASO AC Operating Procedures is maintained on the ASO website[21].

We understand that new ASO AC Operating Procedures are being developed in connection with the ICANN *Empowered Community*, and the role of the ASO as one of the *ECs* Decisional Participants. We were not able to examine these during the course of the review. Nonetheless, we have considered some of the implications for the ASO of the transition to the *EC*, which we present in Section 7.5.

7.1.1.   Global Policy Development Process (GPDP)

The Global Policy Development Process (GPDP) describes 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.

For reasons that remain unclear to us, official ASO documentation includes two separate and slightly different descriptions of the GPDP. These are included in:

- Attachment A of the ASO MoU[22] (this version is also used on the ASO website[23])
- Operating Procedures of the ASO AC[24]

7.1.2.   ASO MoU - Attachment A

Attachment A of the ASO MoU is a twenty-step description of the Global Policy Development Process followed by the ASO. It was developed and published online at the same time as the ASO MoU, on 29 October 2004. It has not been updated since.

Reviewers have considered each step of the PDP and determined that it is still a valid and useful PDP. However, certain sections lack a formal procedure and/or may require updating. We have identified three stages in the GPDP as described in the MoU that still require a formal procedure:

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[21] Operating Procedures of the ASO AC: https://aso.icann.org/documents/operational-documents/operating-procedures-ASO AC/

[22] ASO MoU Attachment A: https://archive.icann.org/en/aso/aso-mou-attachmentA-29oct04.htm

[23] ASO website: https://aso.icann.org/global-policies/global-policy-development-process/

[24] Operating Procedures of the ASO AC: https://aso.icann.org/documents/operational-documents/operating-procedures-ASO AC/#A_6._Global_Policy_Development

Step 12: [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.*

Step 15: 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.

Step 16: 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,

To our knowledge these procedures or agreements still need to be developed. While they may never have been needed, it may be useful to formalise such agreements or procedures with ICANN as part of an updated MoU. Alternatively, they may be removed from the MoU altogether.

Recommendation # 6: The ASO AC should ensure that procedures are developed for Steps 12, 15 and 16 of the GPDP as described in Attachment A of the ASO MoU.

7.1.3.   GPDP description in ASO AC Operating Procedures

A separate and longer description of the Global Policy Development Process is given in Section 6 of the *Operating Procedures of the ASO AC*. This duplication of the GPDP, and the fact that there are a number of inconsistencies between the two descriptions might seem odd to anyone unacquainted with the ASO.

We have identified the following additions to the GPDP as described in the ASO AC Operating Procedures document that are not reflected in the ASO MoU:

Table 2.   GPDP AS DESCRIBED IN ASO OPERATING PROCEDURES AND THE ASO MOU

ASO Operating Rules	Attachment A - ASO MoU
Section 6.3 concerning the role of Policy Proposal Facilitator Teams (PPFT)	No corresponding role for PPFTs
Section 6.4.1 concerning global policy proposals that are submitted directly to an RIR forum.	No corresponding stage in Attachment A
Section 6.4.2 concerning global policy proposals that are submitted directly to the ASO AC.	No corresponding stage in Attachment A
Section 6.4.3 concerning global policy requests that are submitted directly by the ICANN Board to the Address Council.	Procedure appears to be inconsistent with Consideration 1 of Attachment A which states 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 concerning the discussion phase of global policies at the level of the RIRs.	No corresponding stage in Attachment A
Section 6.6.1 concerning the Address Council Review of global policies.	No corresponding stage in Attachment A

Although we note that the Operating Procedures are updated on a more regular basis, Attachment A is supposed to be the authoritative version of the GPDP. The ASO AC sees the text in the ASO AC procedures document as a more descriptive version of the PDP than the one in the ASO MoU. We are of the view that an identical description should be used in both documents.

Recommendation # 7: The ASO should consider the adoption of a single, authoritative description of the GPDP for global numbering policies. The same description of the GPDP should appear in Attachment A of the ASO MoU and the relevant section of the Operating Procedures of the ASO AC (Currently Section 6).

7.1.4. ASO MoU - Attachment B

Attachment B of the ASO MoU is a short description of the temporary procedure for the appointment of ASO AC members in the transition period between the old and the (then) new Address Council. This document no longer serves any purpose and may be archived. (See Recommendation # 4 regarding proposed modifications to the ASO MoU).

7.1.5. GPDP infographic

In the course of research Reviewers came across the following draft infographic representing the stages in the ASO GPDP. Apparently produced by ICANN staff, this seems to be consistent with the GPDP as described in the ASO AC Operating Procedures.

We view such graphic representations of complex processes as helpful to the communities/stakeholders concerned. They are also effective ways of identifying and addressing procedural inefficiencies within an organisation.

If it is accurate, we would encourage the NRO to publish it (or a similar infographic) prominently on the ASO website.
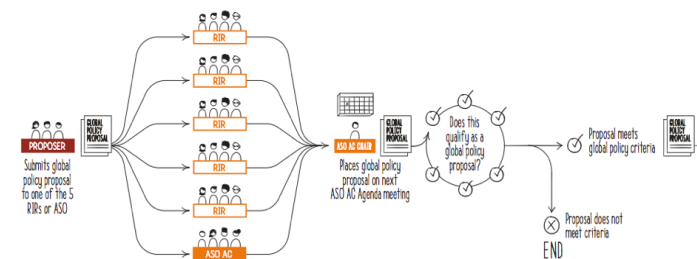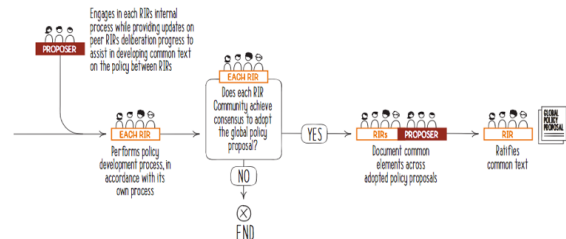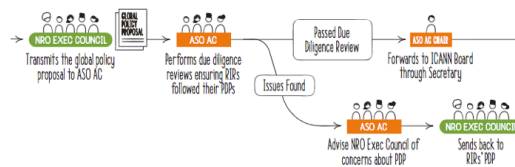
Source: ICANN

Recommendation # 8: With a view to increasing awareness regarding the mission, main operations, and separation of roles between the ASO AC and the NRO EC within the ASO, the NRO should consider the use of more infographics on its website.

7.2.   Interview and survey findings

During interviews, we heard that the ASO is a well-administered, reliable and effective Supporting Organisation that gets appropriate support from the RIRs and the NRO. We spoke to many active ASO members about ways to improve operational effectiveness.

One suggestion made to us is that the ASO Chair and Vice Chair roles should rotate on an annual basis, as do the NRO EC roles. In addition to providing the benefits of term limits to the ASO Chairs, this model of operation allows the spreading of the workload amongst a larger group of people. One long-serving ASO AC member related that in the original ASO, there was no Chair, and that since the introduction of a Chair, communication from other parts of ICANN and the ASO had become excessively channelled, to the detriment of overall communications. He said;

"The AC could be more efficient if we were not so reliant on the management function of the Chair and Vice-Chair. This function adds resilience to communicate with the outside, but creates a tendency for the other members of the AC to sit back. Eliminating the Chair and Vice Chair could reduce this tendency within the ASO AC. The Chair creates a focal point."

While we see the merits of this idea we do not consider the removal of the Chair and Vice Chair roles to be a viable option for the ASO. Instead, we think the idea of rotating the Chair (and Vice Chairs) on a more regular basis has merit and should be part of the consultation process following the submission of this report. We suggest no more than three terms in a row for the ASO AC Chair and vice Chair roles.

Recommendation # 9: The ASO AC should implement term limits for the positions of Chair and Vice-Chair

7.3.   Review assessment: ASO AC Operating Rules

7.3.1.   Duties of the Address Council Chair

We note that the duties of the Chair/Vice Chairs have not yet been specified in the ASO AC Operating Procedures.

Since this is a requirement of the ASO MoU we recommend that the Operating Procedures document be updated accordingly.

4.2. Duties of the Address Council Chair

To Be Published.

4.3. Duties of Vice Chairs

To Be Published.

Recommendation # 10: The ASO AC should ensure that the duties of the Address Council Chair and the Address Council Vice-Chairs need to be added to the ASO AC Operating Procedures.

7.3.2.   Procedure regarding the removal of an ICANN Board Director

We note that new ICANN Bylaws contain provisions for the removal of an ICANN Director which may be inconsistent with Section 8 of the ASO AC Operating procedures on the removal of ASO appointed members. Since the Internet Number Community has formally accepted the establishment of the ICANN *Empowered Community,* the ASO AC should ensure that this provision is updated accordingly. We understand that work has already begun in this regard but have not had a chance to review draft documentation.

Recommendation # 11: The ASO AC should ensure that its internal procedure for the removal of an ICANN Board Director is consistent with Section 7.11 of the New ICANN Bylaws.

7.3.3. New election procedures for seats 9 and 10

The latest changes to the ASO AC election rules were approved in June 2017 in reaction to the previous board seat election. This is an example of the ASO AC doing one of the MoU-prescribed roles, specifically; *"defining procedures for selection of individuals to serve on other ICANN bodies, in particular on the ICANN Board….".* While we have no basis upon which to judge these new rules (implementing a Schulze method of ranked voting, amongst other changes), we do see this as an example of a healthy, functioning ASO AC doing its job according to its mandate.

7.3.4. Executive Secretary of the NRO as PoC for the ASO

We have considered the role of the Executive Secretary of the NRO and suggest that the Point of Contact for all ASO business should be this person. Procedures will need to be developed by the ASO AC to direct the Executive Secretary on the forwarding of communications to the appropriate parties within the ASO.

While there is currently a single email address Aso-chairs@icann.org, which has multiple subscribers from the ASO, this is not the same as having a single POC.

Currently there are multiple people (ASO AC Chair, ASO Vice Chair, NRO EC Chair, NRO Executive Secretary) subscribed to the above email address that ICANN participants can and do use to contact the ASO folks. This has led in the past to confusion about who was required to take action on certain issues.

We think that a single Point of Contact for the entire ASO should be established and communicated to all branches of ICANN to eliminate confusion around who to reach for which responsibility, and that the NRO Executive Secretary team be the sole subscriber for this role account.

This single POC could also act as the required Point of Contact for the Empowered Community, so it would fulfil a Bylaw requirement and hopefully improve communications at the same time.

Recommendation # 12: The ASO should establish the NRO Executive Secretary as the ASO Point of Contact (PoC). The ASO AC should establish procedures for forwarding communications to appropriate parties within the ASO.

7.4. Collaboration with other ICANN SOs & ACs

Unlike the ccNSO or the GNSO, the ASO is not formally required by ICANN Bylaws to coordinate with the other Supporting Organisations (SO) and Advisory Committees (AC). Likewise, the ASO MoU contains no specific provisions in this regard. As a result, the ASO is largely passive in relation to the main coordination mechanisms in place within ICANN. It places no demands on other ICANN constituencies to engage in ASO processes, but responds to requests from the ICANN Board and other constituencies whenever they arise.

ICANN has sought through various means to encourage inter-SO/AC coordination as a means of combating the spread of "silo culture" within the organisation, creating synergies between stakeholder groups and increasing the overall effectiveness of the organisation. Coordination between the various bodies that make up the ICANN multistakeholder system is seen as essential if the system is to endure and prosper. Recent cross-community work on accountability (CCWG-Accountability) is an example of successful coordination involving all the main constituencies within ICANN.

Historically, the NRO has been supportive of the ICANN model as the most appropriate model to ensure the growth and evolution of the Internet. However, beyond occasional public statements of

support, the NRO has avoided making a formal commitment to mirror the coordination mechanisms that other SOs and ACs have created, rightly so in our opinion.

7.4.1. Interview and survey findings

Interviewees were asked about the level and suitability of communication and collaboration mechanisms in place between the ASO and the other ICANN SOs and ACs. Not surprisingly ASO/NRO members' impressions were significantly more positive than other respondents, many of whom declared a lack of awareness regarding the ASO. We also note that among ICANN Board and SO / AC member there is a considerable demand for reinforced collaboration.

Survey Question [Selected respondents]: Are there regular and suitable communication and collaboration mechanisms in place between the ASO and other ICANN Supporting Organisations and Advisory Committees?
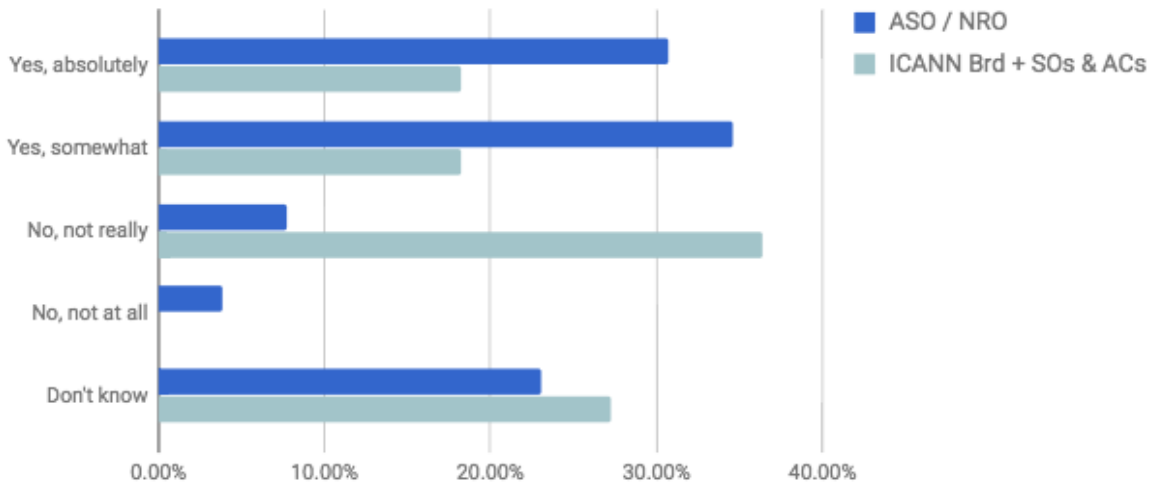
We heard that previous seat 9 and 10 ICANN Board Directors and ASO AC Chair have worked hard to raise awareness about Internet Number issues within ICANN, notably by attending fora with other SOs and ACs, giving updates to all concerned and making themselves available to answer basic questions about the role and function of the ASO. The current Board Directors and ASO AC chair continue to build on on that work which will need to be strengthened further if all of our recommendations are implemented.

We heard from several members of the ASO AC about ongoing efforts to engage in open sessions and joint meetings with the ICANN Board and other ICANN SOs and ACs, to raise awareness about numbering issues.

> *We do open mic. We have a face-to-face meeting. We meet with the Board, the ICANN Board, and that's actually a public session. So the world can see us interacting with the ICANN Board. They will have questions for us. We will pose questions to the Board, and then they will pose questions to us. And the community can see the type of interactions that go on in that regard.*
>
> Member of the ASO AC

7.4.2. Review assessment: Collaboration with other SO/ACs

The following tables contain a partial list of ICANN Working Groups/Teams that the ASO has been asked to provide volunteers for in recent months, and the number of Internet Number community volunteers that have been assigned in each case.

We note that, for the most part, these activities fall outside the ASO AC's narrow remit to provide advice in connection with Internet number policies. They are activities that the NRO has agreed to

undertake as part of its commitment to the ICANN multistakeholder system, in addition to the ASO's policy advice remit.

Table 1: Cross Community Working Groups

Cross-Community Working Groups (CCWG)	ASO volunteers
Enhancing ICANN Accountability (CCWG-Accountability)	5
Internet Governance (CCWG-IG)	3
New gTLD Auction Proceeds (CCWG-Auction Proceeds)	3
ICANN Academy working group	1
Use of Country and Territory Names as TLDs (CCWG-UCTN)	0

Table 2: Special Review Teams

Specific Review Teams	ASO volunteers
Root Zone Evolution Review Committee	3
Security, Stability, and Resiliency (SSR2)	3
Accountability and Transparency (ATRT3)	0
Competition, Consumer Choice, and Consumer Trust (CCT)	0
Registration Directory Services (RDS)	0

Table 3: GNSO PDP Working Groups

GNSO Policy Development Process Working Groups:	ASO volunteers
Curative Rights Protections for IGOs/INGO	0
New gTLD Subsequent Procedures	0
Next Generation gTLD Registration Directory Services	0
Review of All Rights Protection Mechanisms in All gTLDs	0

Table 4: Other working groups and committees

Other (Various)	ASO volunteers
RSSAC Liaison to ICANN Board	1
Budget Working Group	2
Empowered Community/Empowered Community Administration	1
Multistakeholder Ethos Award Community Selection Panel	2
Nominating Committee	1

Under the MoU, the NRO EC has discretion to decide which activities it undertakes on behalf of the Internet Number Community. They also have the option to just say "no". In the course of this review, as discussed elsewhere in this report, we heard from many within the Internet Number community

with concerns about increasing demands from ICANN, and the effective powers of the NRO to dismiss them.

- Is the investment of Internet Number Community members' time in non-policy related ICANN work worth it?
- Is the financial and time commitment to ICANN commensurate with the benefit that is derived by the Internet Number Community?
- What actual obligations does the ASO have in relation to the other ICANN SOs and ACs?
- Can the ASO, as a member of the ICANN Empowered Community, refuse to become involved in additional work?

Our assessment is that the way in which the ASO is currently set up and operates within ICANN gives the NRO considerable latitude to decide whether or not it takes on additional work that is not directly related to the ASO's core policy advice mission.

According to ICANN Bylaws and the ASO MoU, the only firm obligations of the ASO concern the transferal to the ICANN Board of global numbering policies, defining internal operating rules and procedures, and overseeing the appointment of individuals to serve on the ICANN Board of Directors and "other ICANN bodies". Other activities, related to the ICANN Community by not specified by the Bylaws or the MoU, would appear to be less binding.

In the absence of formal guidelines regarding the types and amount of work that the NRO should undertake within ICANN in addition to the ASO's policy advice mission, it is the responsibility for the NRO EC to determine what its commitment should be.
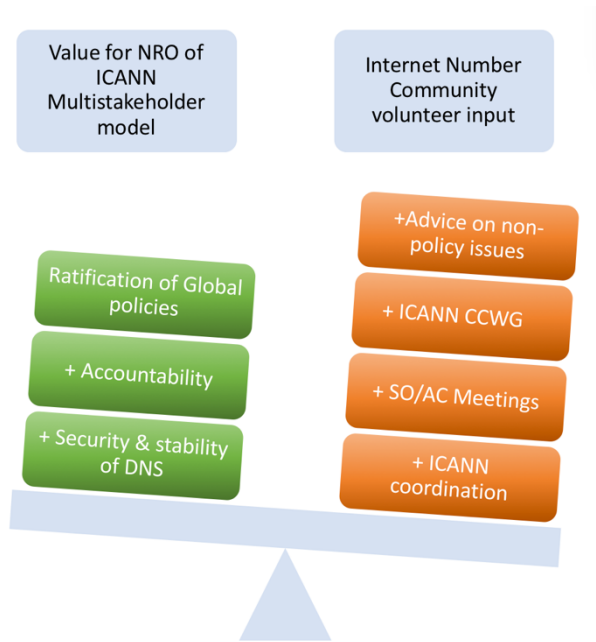
7.5.   ICANN *Empowered Community*: implications for the ASO

Section 6.1 of ICANN Bylaws on the composition and organisation of the *Empowered Community* states that each Decisional Participant shall adopt procedures for exercising the rights of such Decisional Partners pursuant to the procedures set forth in Annex D. These include:

1. who can submit a petition to a Decisional Participant,
2. the process for an individual to submit a petition to such Decisional Participant, including whether a petition must be accompanied by a rationale,
3. how the Decisional Participant determines whether to accept or reject a petition,
4. how the Decisional Participant determines whether an issue subject to a petition has been resolved,
5. how the Decisional Participant determines whether to support or object to actions supported by another Decisional Participant, and
6. the process for the Decisional Participant to notify its constituents of relevant matters.

We understand that legal analysis work is ongoing on *Empowered Community* issues and that the NRO EC in particular is waiting for this report to inform some of the *Empowered Community* questions. Reviewers feel that the details of these answers are out of scope for this review and should be left to representatives of the Community, or to the RIR Communities themselves.

Recommendation # 13: The ASO MoU should be updated to reflect the new reality of the *Empowered Community* and specify the roles and responsibilities within the ASO must be clearly defined.

7.5.1.   Scope of work for the ASO

Given the increasing demands on the NRO EC and the ASO AC from the rest of the ICANN Community (Section 7.4.2), the establishment of the *Empowered Community* may be an ideal opportunity to limit the scope of activities that the ASO bodies participate in within the ICANN context. If the scope of activities is not delineated now, our assessment is it will probably need to be done at some point in the future due to potential conflicts of interest.

One example of this type of potential conflict is the participation of representatives of the Number Community being active in the new gTLD Auctions Proceedings Working Group. This is just one current example of naming issues being worked on by numbering people that may be problematic in the future.

We have considered a few changes in method of operation that may ease the ICANN workload of the NRO EC branch of the ASO. Most of these changes involve a tighter scoping of the issue areas that the ASO should work on (just as the ASO AC roles are tightly scoped in the MoU).

A few areas that we suggest may be in scope are:

- **ICANN Budget**: Since the NRO contributes to ICANN financially this is an issue area that should be monitored by the NRO.
- **Accountability**: This is a debatable issue area for ASO consideration since the ASO is accountable to its own community in a variety of ways. There was a strong suggestion made by several interviewees that it does not need to concern itself with the Accountability of ICANN writ large. We note many ASO appointees to the current WorkStream 2 of the CCWG-Accountability are active. So perhaps allowing them to complete their work and then disengaging from this issue area is a good solution.
- **WHOIS**: Many attempts have been made over the years to revamp WHOIS. Since the Internet Number community registries use WHOIS as a core part of their work, we suggest the ASO representatives monitor all working groups that pertain to new versions of the protocol, but not participate in groups whose focus is WHOIS in the naming context.
- **Issues that affect rDNS** - Since the RIRs are responsible for much of the reverse DNS tree, they have a vested interest in the utility of the DNS. While the NRO as a larger entity than just the ASO has their own Inter-RIR Working groups whose members are involved in DNS operations and DNS protocol development, any global policy work touching on the reverse tree might be in scope for the ASO.

7.5.2.   Designated representative of the ASO as Decisional Participant

Section 6.3 of ICANN Bylaws on the EC Administration states that the Decisional Participants in the *Empowered Community*:

> "shall act through their respective chairs or such other persons as may be designated by the Decisional Participants. Each Decisional Participant shall deliver annually a written certification from its chair or co-chairs to the Secretary designating the individual who shall represent the Decisional Participant on the EC Administration.

Accordingly, one of the first priorities for the ASO should be to have a procedure in place for the appointment of a "Representative" or "Associate" to act on its behalf and in accordance with processes. According to ICANN Bylaws:

"In representing a Decisional Participant on the EC Administration, the representative individual shall act solely as directed by the represented Decisional Participant and in accordance with processes developed by such Decisional Participant in accordance with Section 6.1(g)."

There are no specific ICANN guidelines regarding the appointment of this individual and it is our understanding the NRO EC has provisionally established that the acting Chair of the NRO EC will serve in this capacity.

If the NRO confirms that the Chair of the NRO EC will continue to serve in this capacity this removes the need for a new appointments procedure. However, if the NRO considers that another individual (e.g. the chair or other member of the ASO AC) could serve in this capacity, the ASO AC should be tasked with developing a new appointments procedure. In this case we recommend the appointment to be made on an annual basis, rotating between the five global regions.

Either way this will require the delivery of an annual certification according to the ICANN bylaws Section 6.3. EC Administration.

Recommendation # 14: The ASO AC should either confirm that the designated representative of the ASO on the Empowered Community Administration will be the Chair of the NRO EC, or adopt a procedure for appointing another representative.

7.5.3.   Review assessment: Empowered Community

Since the ASO has agreed to be a member of the *Empowered Community* there are a number of community-related tasks that ICANN has requested of the ASO. Deciding who should take these tasks on, if they should be taken on at all, is significant work itself.

We understand it is difficult to "just say *no*" to ICANN staff and other SO/AC Chairs when they make requests for participants, and that certain members of the ASO AC may be interested in the wider issues beyond those of the naming community. However, If the ASO is to participate in any ICANN process, this must be a positive decision by the ASO, not an imposed obligation from the ICANN Community.

We also see the potential for conflicts of interest that was described to us by some in the Internet Number Community in sending representatives to ICANN bodies that deal with naming and other non-numbering issues. RIR Members pay their RIR for numbering services and many of these Members also have interests in naming issues. These organisations adequately represent their own interests in ICANN without having any potentially conflicting representation by those involved in the numbering communities.

This was discussed at length with a range of people inside ICANN and the Internet Number community. The opinions we heard suggest that the Internet Number community representatives should adhere to a tightly scoped set of issue areas that affect their work due to this very real potential conflict of interest. In other words, we feel that ICANN Working Groups that touch on naming issues are probably outside the scope of the ASO.

8.   Accountability & Transparency of the ASO

ICANN's commitment to accountability and transparency, in all of its operations, and across all its constituent bodies is well documented[25]. The principles of accountability and transparency are often presented as a cornerstone in the organisation's efforts to ensure that its multistakeholder model remains effective.

Likewise, the Internet Number community is also firmly attached to the principles of accountability and transparency and, in this regard, the NRO website contains a comprehensive *RIR Accountability Q&A*[26].

Conversely, the standards of accountability and transparency to which the ASO should be held are not immediately obvious. There is no ASO document or statement outlining its commitment to the principles of accountability and transparency, and very little or no mention of these principles in the following documents:

- ASO MoU (one reference to transparency in the selection of Board Directors).
- ASO AC Operating Procedures (no reference)
- Procedures to appoint members to various bodies (no reference)
- Procedures for the election of AC Chair and co-Chairs (no reference)
- The ASO website - ASO FAQ (no reference)

Besides, we note that the ASO website contains no web links to either the ICANN or NRO declarations on accountability and transparency. As a result, it is not clear whether it is ICANN or NRO principles, or a combination of both, that apply in the case of the ASO.

In the absence of a discernible ASO statement on accountability and transparency Reviewers determined that the ASO should act in accordance with both ICANN and NRO principles.

8.1.   ASO AC & NRO EC: Individual lines of accountability

ASO leadership consists of twenty people (15 ASO AC + 5 NRO EC) each of which may be considered to be answerable to the community that appointed them to their role.

8.1.1.   NRO Executive Committee (EC)

There are five members of the NRO EC. According to the NRO MoU these individuals could be anyone from the RIR communities. In practice, however, the NRO EC has always been made up of the CEO of the five RIR. These five individuals are hired and can be dismissed by the respective RIR Board of Directors, so they are answerable (accountable) to the Board that hired them. The boards are in turn accountable to the community that selected them. These are clear lines of accountability.

If in future, non-CEO RIR staff are designated to sit on the NRO EC, the same type of accountability (employer-employee) relationship would still be in place.

8.1.2.   ASO Address Council (AC)

Two members of the ASO AC are elected by each RIR community. These elections seem to be conducted in line with the principles of bottom-up, open and transparent processes that the RIR communities espouse. Anyone, who attends the RIR meeting where elections are held is eligible to vote in these elections. There are no RIR membership criteria for enfranchisement. These ten Members are, therefore, accountable to the larger community of Internet number policy makers in

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[25] ICANN website: *Accountability and Transparency* https://www.icann.org/resources/accountability
[26] RIR Accountability Question and Answers: https://www.nro.net/about-the-nro/rir-accountability/

each region. They can be replaced at the next election, and thus their accountability (answerability) is ensured.

The five selected ASO AC Members (one per region) are chosen by the RIR Board Members to sit on the ASO AC. As with the NRO EC Observers, these individuals are accountable to the Boards that appoint them (another person can be selected to fill the ASO AC role at expiration of their term). Frequently these individuals are RIR Board Members, but are not always. When they are from a Board they are answerable to that Board and to the larger community which has elected them (they can be voted out of office at the next election or otherwise removed by that region according to 3.D of the ASO Rules of Procedure). So we see full accountability from this role.

One NRO Secretariat staff and multiple RIR staff work on ASO issues. These individuals are hired by the RIR CEO (in theory and can be dismissed by them as needed, so they are answerable (accountable) to the RIR that hired them. This is a clear line of employer-employee accountability.

8.2. Accountability & transparency practices

8.2.1. ASO face-to-face meetings

The ASO has traditionally held face-to-face meetings during annual ICANN meetings. However, in recent years, it would appear that the ASO has held most face-to-face meetings in closed session.

One long-time member of the ASO AC explained how, in the early days, meetings had always been closed until someone pointed out that there was no reason for this. Meetings were subsequently opened up in line with Internet Number community and ICANN practices and, for a while, anyone could attent. Then, at some point, the need to discuss individual suitability for certain ICANN roles led to their closure again.

Reviewers feel that, with the exception of discussions that need to be held in private (e.g. regarding the CVs and suitability of individuals for ICANN appointments) ASO AC face-to-face meetings should be open to the larger ICANN community. We do not anticipate the opening up of meetings will lead to a large influx of attendees due to the high level of specialisation regarding numbering issues that is required.

Recommendation # 15: ASO AC meetings should be open to the public, except for discussions regarding the selection of individuals for ICANN roles.

We note that, since 2013, the ASO maintains complete face-to-face meeting attendance records[27]. These are made publicly available on the ASO website. This is a useful accountability and transparency measure that should certainly be continued.

8.2.2. ASO mailing lists

The ASO has three active mailing lists listed on the ASO website, each with different levels of accessibility and posting rights[28]:

- **aso-announce:** (open to all, publicly archived) used to make announcements relating to ASO news, policy developments, meetings and calls for comment.
- **aso-policy:** (open to all, publicly archived) used to provide a forum for public discussion on matters related to the ASO.
- **aso-council:** (restricted access, publicly archived) used for discussion by the ASO, mostly in connection with policy matters.

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[27] ASO AC Meeting Participation Records: https://aso.icann.org/meetings/ASO AC-meeting-participation-records/
[28] ASO Mailing Lists: https://aso.icann.org/contact/aso-mailing-lists/

However, the ASO mostly uses the AC-COORD internal coordination mailing list. We made several requests to access the archives of this list but the ASO AC is eager to keep these discussions private. There does not appear to be a publicly available list archive for the AC-COORD list. This list should also appear on the ASO webpage: https://aso.icann.org/contact/aso-mailing-lists/

While we appreciate that there may be issues (e.g. procedures for the appointment of ICANN Board and NomCom positions) that the ASO may wish to keep private, for the most part we are of the view that discussions within the ASO should be conducted in a manner that is as open and transparent as possible.

Hence, we recommend that the AC-COORD mailing list only be used sparingly, for the most sensitive issues that cannot be discussed in public, while the majority of of issues relating to the operations of the ASO are discussed in public, via the open subscription *aso-council* list, and publicly archived.

Recommendation # 16: For its internal communications, and for most matters related to the operations of the ASO, the ASO should favour the use of a publicly archived mailing list. In exceptional circumstances, for issues (e.g. Board appointments) that cannot be discussed in public, a non-publicly archived list should be used.

8.2.3. ASO website

The ASO website contains a large amount of information on the origins, mission, operating procedures, global policies and other achievements of the ASO. The site is a vital means of ensuring that the operations of the ASO are conducted in as transparent a manner as possible and, generally speaking, we have found it to be well-organised (intuitive navigation), with up-to-date, accurate and relevant information.

Notable improvements in terms of enhanced transparency and accountability, that have been made to the site since the last ASO review, include:

- **Translations to the ASO MoU and Global Policy documentations:** In 2013 translations were made available in Arabic, Chinese, French, Russian and Spanish. This is consistent with Recommendation # 15 of the previous review.
- **ASO AC work plan:** The site now includes a link to an annual work plan. Such plans are useful for internal purposes, and for outside reviewers, to check the capacity of the ASO to operate according to a clearly defined mission and shorter/longer term objectives.
- **ASO FAQ:** This provides answers to many questions that outsiders may have regarding the ASO. However, we note that the FAQ does not include any questions on the specific role of the NRO EC as part of the ASO. We would recommend an additional question on the specific role and scope for action of the NRO EC.
- **History of the ASO:** A more detailed history of the origins and mission of the ASO is now included on the site.
- **Glossary of Terms**: The site now includes a comprehensive and useful glossary of terms and acronyms used by the ASO.

However, we consider that there is still room for improvement. In particular:

- **Better synchronization of information between ASO and NRO sites:** We see the advantages of a more systematic synchronisation of the ASO and NRO sites regarding the operations of the ASO. For example, paragraphs 19 and 20 of the ASO MoU indicate that

"*All global policies adopted will be published in the NRO and the ICANN web sites*", yet the two sites currently contain different information regarding global numbering policies[29].

- **More direct reference to the NRO:** Currently the site contains little information on the role and scope for action of the NRO EC in connection with the ASO. This could be made much more explicit, notably with more links to the website of the NRO and a presentation of the members of the NRO EC. A record of the activities carried out by the NRO in connection with the operations of the ASO (currently available on NRO site) should be included on the ASO site.
- **ASO presentations:** The ASO site contains a useful link to presentations that have been made, in various forums, on the activities of the ASO. However, this page has not been updated since 2012. A more regular updating of this page, notably in view of recent organisational changes within ICANN, would be welcome.
- **ASO Historical documents**: the "Historical Document" page on the website (https://aso.icann.org/documents/historical-documents/) is currently empty. This would be a useful resource to have on the site.
- **Contact info:** The site could include more direct means for members of the public to get in contact (email, phone), name of the point of contact person.

Recommendation # 17: In the interests of transparency, the ASO website should be updated with recent presentations, contact details and an archive of the activities of both the ASO AC and NRO EC.

8.2.4.   ASO Social Media

The ASO does not have an official Facebook Page or Twitter account. Nevertheless, during the review process, we were able to observe how the NRO Secretariat, several members of the ASO AC and NRO EC, as well as the ASO-appointed members of the ICANN Board of Directors, often use both of these social media platforms to communicate about the activities of the ASO. There is a strong community awareness of the effectiveness of social media to communicate broadly, and related benefits in terms of accountability and transparency

8.2.5.   ASO Independent Review

As noted (Section 4.2) regular Independent reviews are a key component of ICANN and the Internet Number Community's strategy regarding accountability and transparency.

This review was conducted over a six-month period between late February and 31 July 2017. Reviewers were given access to all relevant documentation regarding the ASO, and generally found the representatives of the organisation to be open, knowledgeable and frank about its operations.

Given the number of meetings that needed to be attended during this period, we did feel that a slightly longer timeframe would have been preferable.

8.3.   Interview & survey findings

A large majority of interview and survey respondents expressed a high degree of satisfaction regarding the accountability and transparency of the ASO.

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[29]The NRO site (https://www.nro.net/policies/global-policies-development-process/) lists three global policies, whereas the ASO site (https://aso.icann.org/global-policies/global-policies-2/) lists four.

Survey Question [All respondents]: Does the ASO operate in a manner that is accountable to the global Internet number community?

Don't know
5.6%
No, absolutely not
1.0%
No, not really
6.6%

Yes, somewhat
31.1%
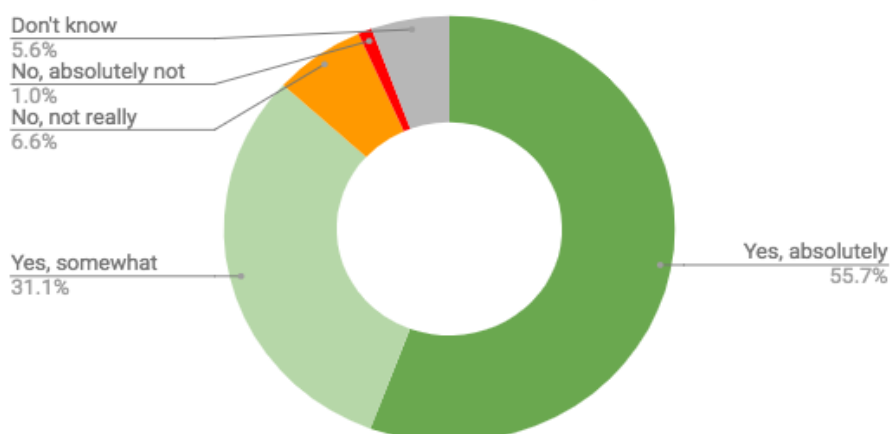
Yes, absolutely
55.7%

While nearly 87% of respondents felt that the ASO operates in a manner that is accountable ("Yes, absolutely" + "Yes, somewhat"), a small minority (7%) felt that they were not really accountable and 6% said they "didn't know". Hence, the general consensus is that the ASO (ASO AC and the NRO EC) have established lines of accountability to their communities either directly or indirectly.

While there are a variety of ways to define "accountability", in the context of the Internet Number Community, it seems to be defined as "*can these people be removed from their role in cases where they do not act according to the wishes of the community body which has chosen them*." The consensus view is that there are well established and well-functioning mechanisms throughout the numbering community that establish and maintain good accountability.

8.4. Review assessment: Accountability & Transparency

In the following table we identify some of the main tasks undertaken by the ASO and evaluate them in terms of their contribution towards the objective of greater accountability and transparency.

Table 3.   ASO ACCOUNTABILITY & TRANSPARENCY PRACTICES

Type of activity	Reviewer's observations
ASO AC monthly calls	**Low A&T**: Closed calls for the members of the ASO AC only.
ASO AC policy mailing list	**High A&T**: Public mailing list available on the ASO website.
NRO EC monthly call	**Moderate A&T**: the minutes of the monthly NRO call, in so far as they concern the ASO, should be linked on the ASO website.
ASO face-to-face meetings during ICANN meetings	**Low A&T**: Whereas the ASO opened up many of its meetings, in recent years there has been a marked tendency to make them private again.
Activity reports on the ASO during RIR meetings	**High A&T**: During the course of the review we attended several public presentations on ASO activities during RIR meetings.
ASO website	**Moderate/high A&T**: The ASO website contains a significant amount of information on the origins, mission and achievements of the ASO. However, a large number of 'non-policy' activities carried out by the NRO in connection with the ASO are not referenced on the ASO website (they appear only on the NRO site).

Translation of key ASO documentation into main UN languages	**Moderate A&T**: Since the last review the ASO MoU and global policy documentation has been translated into Arabic, Chinese, French, Russian and Spanish.
Interpretation during ICANN meetings	**High A&T**: While interpretation is not systematically provided during ASO meetings, it is provided for high level public meetings with the Board (and was provided for the public presentation of interim review findings).
Implementation of periodic review recommendations.	**High A&T**: Once the Board of ICANN accepts recommendations resulting from review processes, the implementation of these recommendations is publicly tracked with periodic status reports posted.
Liaison with the ICANN Board Organisational Effectiveness Committee (OEC)	**High A&T**: Reviewers noted that the NRO maintained regular contact with the ICANN Board OEC during the review process. Members of the OEC participated in the public presentations of interim findings.

Other issues discussed in regards to accountability were the number and make-up of the ASO AC. Currently the ASO AC consists of ten elected members (two per region) and one member selected by the RIR Board in each region. A small minority of people we spoke to suggested that all fifteen ASO AC Members should be elected and that this would increase accountability to the Internet Number community at large.

While there is a numerical balance in the ASO currently (10 x AC elected members + 5 x selected by RIR Boards + 5 NRO EC Members), the proponents of this idea pointed out that all 15 ASO AC Members should be directly accountable to the Internet Number community (i.e. elected). However, the practice of the RIR Boards selecting one ASO Member per region allows for the identification and retention of dedicated professionals.

We spoke to a variety of people about the size of the ASO AC and while some felt it was too big, they were in a small minority. Most felt that a fifteen-member AC was the right size. We have seen evidence in the recent history of the ASO that points out the utility of this practice and we find it to be of value to the Internet Number Community. We make no recommendation on this issue.

In general, our view is that the ASO operates with a high degree of accountability to its constituencies, stakeholder groups, organizations and other stakeholders. However, as highlighted in the table above, we also note some minor issues where this can be improved.

9. Options for the ASO going forward

One of the main findings of this review is that the ASO continues to function in line with its policy mandate as defined by ICANN Bylaws and the ASO MoU. Yet, at the same time, in many parts of ICANN, including at the level of the Board, there is still considerable misunderstanding regarding the precise scope for action and separate roles of the ASO AC and the NRO EC. There is also a growing potential for mismatched expectations between the two parties given the number of additional tasks that Supporting Organisations have been expected to take on in recent years.

With this in mind we have considered three options for the ASO going forward weighing up, in each case, the advantages and disadvantages for the Internet Number community. Ultimately, it will be up to the NRO to organise a public consultation to decide on the ASO within ICANN.

9.1.   Options for reform

Taking into account feedback following the publication of the draft Report, we have considered three options along a spectrum of choices for the ASO going forward:

1) Status Quo, and *"Just say no"*. In other words, the NRO EC must tightly scope ASO activities to those consistent with the interests of the global internet number resource community.
2) Status Quo +. Increased coordination between the ASO AC and the NRO EC to ensure that entire ASO (ASO AC + NRO EC) formally meet at least once a year, or more often as needed for critical *Empowered Community* decisions.
3) Replace the current ASO with an *ASO Council* consisting of two houses, a Policy House (current ASO AC) and a Registries House (current NRO EC).

9.1.1.   Status quo and "Just say no"

The ASO is widely perceived to perform its narrowly-defined policy function within ICANN in an organised and efficient manner, and many stakeholders still consider the ASO MoU to be an accurate description of the mission and scope-for-action of the ASO. ICANN Bylaws and the ASO MoU have served as a solid and enduring definitional basis for the operations of the ASO and, as such, this suggests a strong case for maintaining the status quo.

In the status quo, with minimal roles outlined in ICANN Bylaws, the ASO AC has been able to focus on a limited number issues. Whenever issues have arisen that do not relate to the narrow mandate of the ASO AC, the NRO has had the flexibility to decide, on a case by case basis, what is in scope, and to determine which body should take up a certain task or set of tasks.

Since the MoU states that the NRO fulfils the roles and responsibilities of the ASO, the NRO's flexibility to determine what is in scope for the ASO AC and what is in scope for the NRO is a valuable mechanism, and one that should not be changed without significant consideration.

One potential drawback to maintaining the status quo is that the current misperceptions regarding the ASO by some within ICANN will also be maintained. This will mean that misalignment of expectations will continue with ICANN expecting to be able to task the ASO with additional duties related to its status as a Supporting Organisation, while the numbering communities expect the ASO to be accountable (and tasked) by them alone.

In addition, it does not address the problem we have identified that the status quo tends to conceal from public view the procedures and decision-making processes of NRO EC in connection with the operations of ASO (since these tend to be archived on the website of the NRO).

Under the increasing workload that the ASO has seen in recent years, the status quo means that the NRO EC will be tasked with continuing to make decisions on an ad hoc basis, which is a significant source of work that several in the ASO discussed with us.

The status quo with a tight scope option is the path of least resistance for the NRO. It is an organisational model that has allowed the ASO to operate in a stable, effective and sufficiently accountable manner and, if no structural changes are made as a result of this review, there is enough evidence to suggest that it will continue doing so in years to come.

9.1.2. Status quo +: increased ASO AC / NRO EC coordination

Increased coordination between the ASO AC and the NRO EC is a relatively straight forward option to overcome a number of procedural grey areas within the ASO that have been identified in the course of this review, notably regarding non-policy related matters in connection with the ASO and the wider ICANN system.

While there is already significant coordination and cooperation between the ASO AC and the NRO EC, it may be useful to formalise the joint annual meeting. Currently, there is an annual joint meeting of the ASO AC and the NRO EC held during one of the three ICANN meetings. However, this is not a requirement from the Bylaws or MoU and should perhaps be documented as an essential meeting of the ASO as a whole.

One point of having a joint meeting, in addition to discussing the status of current topics, could be to jointly plan for the year ahead as well as determining which body should be taking on which tasks for the foreseeable future.

In addition, there are many who feel that extraordinary issues such as removal of an ICANN Board Member should have the input of the entire ASO leadership, so a joint session could provide the formal opportunity to make such decisions. Obviously, decisional procedures would need to be updated if this option was desired. However, this option would require no structural changes to Bylaws or the ASO MoU.

If this (open) meeting were advertised to the rest of ICANN as a joint meeting of the ASO AC and the NRO EC, it may help in dispelling misunderstandings about the ASO. One of the main effects of this option is to highlight the role of the NRO EC within the ASO.

9.1.3. Adoption of a two-house ASO Council

The adoption of a two-house *ASO Council* model is a possible solution for removing common misconceptions about the mission and functional aspects of the ASO. By establishing that the ASO is composed of two houses, a 'Policy House' (currently the ASO AC) focused on global policy and the appointment of individuals to the Board and other other bodies within ICANN, and a 'Registries House' (currently the NRO EC) with responsibility for contractual, coordination (ASO MoU) and other operational matters with ICANN, the aim of the *ASO Council* is to highlight the two main channels through which the Internet Number Community engages with the ICANN community.

The *ASO Council* is not intended to alter the way in which the NRO fulfils the role, responsibilities and functions of the ASO. Rather it is intended to take into account the fact that the NRO, when acting as the ASO, routinely conducts activities (e.g. coordination of the CRISP Team, SLA Review Team, seating of Internet Number Community volunteers on ICANN CCWG etc.) that were not originally planned when ICANN Bylaws were drafted and the current version of the ASO MoU was signed.

By more clearly delineating the separate roles of the ASO AC and the NRO EC, as two 'houses' within a single *ASO Council*, it could be argued that this will lead to increased efficiencies within the ASO, and the ICANN organisation as a whole, as well contributing towards the goal of greater transparency and accountability. The main motivations for establishing such an *ASO Council*, include:

- **Operational effectiveness**: a better description of the respective roles of the ASO AC and the NRO EC in ICANN Bylaws and the ASO MoU is likely to lead to more streamlined relations with ICANN. Internally, the adoption of a single set of Operating Rules and Procedures for the ASO Council as a whole is likely lead to improved operational effectiveness, and remove grey areas where the separation of powers between the ASO AC and the NRO EC are unclear.

- **Accountability and transparency**: a more complete description of the role and function of the NRO when conducting activities in conjunction with the ASO's policy function, as well as other activities in connection with the ICANN Empowered Community. All actions undertaken by the ASO AC and the NRO EC should be recorded on the ASO Website (unlike the current practice of recording NRO-EC activities on the NRO site).

- **Internal and external review of ASO performance**: a better scoping of the ASO AC and the NRO EC will make it easier for the Internet Number Community, and future reviewers of the ASO, to make qualitative assessments of the work output of the ASO. Currently it is difficult for reviews to make a qualitative assessment of the work of the NRO EC since it is not conducted within a specific framework, according to established guidelines.

9.2. Status quo or reform? Implications of proposed options

The following table identifies some of the changes to ICANN Bylaws, the ASO MoU and other ASO documentation resulting from the adoption of one of the three proposed options.

Table 4.   IMPLICATIONS OF PROPOSED OPTIONS

	Option 1: *Status Quo & "Just Say No"*	**Option 2** *Status Quo + increased coordination*	**Option 3** **Adoption of two-house "ASO Council"**
ICANN Bylaws	No change	No change	Bylaws to state that the ASO shall have an *ASO Council* with two "Houses"; a Policy House current (ASO AC) and a Registries House (NRO EC).
ASO MoU	No change	No change	Update to include more details on the scope for action of the NRO EC (Registries House)

ASO AC Rules of Procedure	No change	Formalise joint annual meeting as needed	Rules of Procedure to be renamed "ASO Rules of Procedure".
ASO website	No change	More information on role/scope for action of the NRO EC	The ASO website to include record of all activities of the NRO EC in connection with the ASO.

9.3. Internet Number Community public consultation

As part of this review we are not making a recommendation in favour of one of the three options described above. We do think, however, that recent organisational changes within ICANN, as discussed elsewhere in this report, call for a community-wide reconsideration of the role and function of the ASO within ICANN. In discussion with NRO leadership, the members of the ASO AC members, and members of the wider Internet Number Community, we have heard compelling arguments for and against the options presented here.

For this reason, we think that the time is right and that it is in the NRO's best interests to initiate a public consultation to determine the need for organisational reform within the ASO.

Recommendation # 18: The NRO should initiate a public consultation, involving the five RIR communities, to determine the future structure of the ASO.

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10. Review recommendations

10.1. Recommendations in order of appearance in report

Recommendation # 1 (p.11): ICANN should consider updating its Bylaws to reflect the fact that the NRO will, like the GAC, and according to the ASO MoU, provide its own review mechanism for the review of ASO.

Recommendation # 2 (p.11): The NRO should consider updating the ASO MoU to reflect the fact that the appropriate section of the New ICANN Bylaws regarding Organizational Reviews is Section 4.4 (previously Article IV, Section 4).

Recommendation # 3 (p.11): The NRO should adopt a procedure for conducting periodic reviews of the ASO in line with processes used by the ICANN Organizational Effectiveness Committee.

Recommendation # 4 (p.21): The signatories of the ASO MoU should consider updates to the MoU including i) the addition of AFRINIC as a signatory, ii) the removal of Appendix B. v) updates in connection with the responsibilities of the ASO as a Decisional Participant in the ICANN *Empowered Community.*

Recommendation # 5 (p.21): Upon completion of every independent review of the ASO, the NRO and ICANN should initiate discussions, as per Article 9 of the MoU, to examine results and consequences of their cooperation. The parties should determine if the ASO has a continuing purpose within the ICANN structure, and re-evaluate the MoU accordingly.

Recommendation # 6 (p.30): The ASO AC should ensure that procedures are developed for Steps 12, 15 and 16 of the GPDP as described in Attachment A of the ASO MoU.

Recommendation # 7 (p.31): The ASO should consider the adoption of a single, authoritative description of the GPDP for global numbering policies. The same description of the GPDP should appear in Attachment A of the ASO MoU and the relevant section of the Operating Procedures of the ASO AC (Currently Section 6).

Recommendation # 8 (p.31): With a view to increasing awareness regarding the mission, main operations, and separation of roles between the ASO AC and the NRO EC within the ASO, the NRO should consider the use of more infographics on its website.

Recommendation # 9 (p.32): The ASO AC should implement term limits for the positions of Chair and Vice-Chair.

Recommendation # 10 (p.32): The ASO AC should ensure that the duties of the Address Council Chair and the Address Council Vice-Chairs need to be added to the ASO AC Operating Procedures.

Recommendation # 11 (p.33): The ASO AC should ensure that its internal procedure for the removal of an ICANN Board Director is consistent with Section 7.11 of the New ICANN Bylaws.

Recommendation # 12 (p.33): The ASO should establish the NRO Executive Secretary as the ASO Point of Contact (PoC). The ASO AC should establish procedures for forwarding communications to appropriate parties within the ASO.

Recommendation # 13 (p.37): The ASO MoU should be updated to reflect the new reality of the *Empowered Community* and specify that the roles and responsibilities within the ASO must be clearly defined.

Recommendation # 14 (p.38): The ASO AC should either confirm that the designated representative of the ASO on the Empowered Community Administration will be the Chair of the NRO EC, or develop a procedure for appointing another representative.

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Recommendation # 17 (p.42): In the interests of transparency, the ASO website should be updated with recent presentations, contact details and an archive of the activities of both the ASO AC and NRO EC.

Recommendation # 18 (p.48): The NRO should initiate a public consultation, involving the five RIR communities, to determine the future structure of the ASO.

10.2.   Categorised

10.2.1.   Recommendations for the NRO

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10.2.4. Recommendations for the ASO AC

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