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Briefing Paper

For ccNSO Council

ccNSO Technical Working Group
2012-06-06

Summary:

This briefing paper explores the following broad themes:

1. Common challenges and the interrelationship of strategic, technical and operational roles in ccTLDs.

2. Attendance of technical people at Tech Day.

3. Innovation and the role of Tech Day and the strong ecosystem of technical forums that it is a part of.

4. The changing ICANN landscape with the new introduction of hundreds of new gTLDs.

The paper then presents a developing vision for the future of ICANN meetings and the role of Tech Day within those.

1 Introduction

This briefing paper has been produced in response to a request from the ccNSO Council made at its meeting of 2011-11-15. In the discussion around this action item a number of points were raised and the Chair of the Technical Working Group was asked to provide a briefing paper regarding the future direction of Tech Day.

The relevant minutes from that ccNSO Council meeting read as follows:

> ### *4.3 Strengthening Relation Tech Day and Program Working Group*
>
> *It was agreed that we should improve liaison between the Tech Day WG and the program WG. Bart Boswinkel noted that as Chair of the Programme Working Group and a member of the Tech Working Group, Ondrej Filip would work to strengthen the liaison between the groups in order to plan for future Tech Days.*
>
> *Roelof Meijer suggested that since Tech Day and the ccNSO Members Meeting often have similar topics, the purpose of Tech Day should be clarified.*
>
> *Bart Boswinkel noted that even though Tech Day and the Members Meeting share the same topics, the audience as well as the angles are usually different.*
>
> *Patricio Poblete suggested that the Tech Day should be part of the ccNSO Members Meeting and therefore also be organised by the Programme Working Group.*

Keith Davidson noted that the Tech Working Group is working to broaden the audience of Tech Day and to make it a cross-community event rather than a ccNSO event.

The Chair suggested asking the Tech Day chair, Eberhard Lisse, to provide the Council with a briefing paper regarding the future direction of Tech Day and to later on invite him to join the Council in the discussion of this matter.

Action 69-02*:*

The Secretariat to ask the Tech Day chair Eberhard Lisse to provide the Council with a briefing paper regarding the future direction of Tech Day.

2 Common Challenges

If we examine the recent experience of changes that ccTLDs have managed we can see that all of these major changes have involved people from strategic, technical and operational roles within each ccTLD.

If we take DNSSEC as an example, the typical involvement of a ccTLD has been for:

- Those in strategic roles are concerned with issues such as:

  - The increased reliance on IANA with the root key signing process.

  - The degree to which a ccTLD may be seen as trusted by being DNSSEC signed and how that affects the marketing of the ccTLD.

  - How the relationship between registries, registrars and registrants is changed by DNSSEC.

- Those in technical roles are concerned with issues such as:

  - The technical process for generating, protecting and using keys.

  - The tools available and their features, reliability and integration.

  - Adding support for DNSSEC to the registry system and DNS servers.

- Those in operational roles are concerned with issues such as:

– What happens to a registrant moving from a DNSSEC enabled registrar to one that is not DNSSEC enabled?

– Training of support staff to answer questions on DNSSEC.

– Explaining DNSSEC plans to registrars and registrants.

Other major changes such as IDNs and EPP have an equal split of interest among strategic, technical and operational roles. The same can be said of the ICANN led initiatives such as SSR, DSSA and WHOIS changes, all of which have distinct strategic, technical and operational components.

This split of roles is recognized and addressed in the regional TLD organizations that have separate administrative and technical working groups and mailing lists.

If we examine the agendas of recent Tech Day and ccNSO meetings we can see this interrelationship quite clearly in the following subjects being discussed in both meetings:

- IANA

- DNSSEC experiences

- WHOIS proposals

- SSAC

- New gTLDs

- Sharing technical resources

We also have a number of ccTLDs present to both meetings in the same week with one presentation on strategic/operational issues and one on technical issues, such as the presentations given by .NG in Dakar.

The evidence is clearly there that the same subjects need examining, in depth from strategic, operational and technical perspectives and Tech Day is the technical component for those perspectives.

3 Attendance at Tech Day

Now that we have established the need for a technical forum for technical people to consider the technical implications of common challenges, we look at who actually comes to Tech Day.

During each Tech Day the members of the Tech Day program committee talk to the attendees to find out their roles, backgrounds and interests to ensure that the content stays relevant and meets the needs of attendees. In these conversations the same feedback is repeated often:

- The majority of attendees are technical people who do not also attend the ccNSO days.

- As technical people they are given the job of tackling the technical issues and their ccTLD management expects them to concentrate on technical issues while at ICANN meetings.

- The technical content of ICANN meetings is generally quite split up with long gaps between it. Tech Day and the DNSSEC Workshop are the two exceptions where the whole day is devoted to technical issues. Without these clearly defined days many technical people would not be able to justify attending an ICANN meeting.

It is also interesting to note that very few strategic and operational people within ccTLDs attend Tech Day because the technical perspective is something they leave to others inside their organizations.

One of the most likely reasons for non-technical people not attending Tech Day is that there are regular presentations that discuss various technical matters at a level of detail that is likely not appropriate for anyone non-technical. An example would be frequency and mechanisms for DNSSEC key rollover. This technical depth is often cited in feedback as a key component of the benefits or the attendees at Tech Day.

4 Innovation And the Technical Ecosystem

Many of the key changes within ccTLDs are driven by technical innovation.

A good example is the current proposed changes to WHOIS where technical people have identified significant weaknesses in the WHOIS protocol and have proposed a path forwards that solves these but also provides other functionality that governance people are interested in.

There is an increasing shift for this innovation to start at ICANN meetings as the regional meetings do not include the other consitituencies and the IETF with a narrow technical focus does not enable the full range of issues to be discussed. Again the proposed WHOIS changes are a recent example of this, but the history of these changes being introduced at ICANN meetings goes back many years.

Tech Day has been at the forefront of growing this innovation by bringing in speakers on topics that are technical and relevant to ccTLDs but are not normally found at ICANN. One of our greatest successes so far has been in arranging joint DNS-OARC and Tech Day meetings (on the Sunday and then the Monday) that saw over 100 hundred attendees, many of whom would not normally make it to an ICANN meeting.

5 Changing the ICANN Landscape

Over the last few years the technical developments that have affected TLDs have affected all TLDs including ccTLDs and gTLDs. An example of this development is IDNs which were jointly developed by the ccTLD and gTLD community.

We have reached a situation where all new technical developments are very likely to affect both ccTLDs and gTLDs in a similar way that IDNs did. Unlike the ccNSO the gNSO does not have a technical day but there are topic-specific meetings and even whole days assigned in the ICANN meeting schedule. A good example is DNSSEC which now has a whole day assigned at every ICANN meeting.

However other developments, such as the proposed changes to WHOIS have individual meetings that are sparsely attended because they are buried in an obscure part of the ICANN meeting agenda.

Another factor bringing the two communities together is that a number of ccTLDs including .UK, .AT and .ZA have announced bids for gTLDs in partnership with third parties. These ccTLDs will need to be fully aware of the technical developments from both the ccTLD and gTLD perspective.

As well as seeing the technical issues blending together we are also seeing the technical people from ccTLDs and gTLDs mixing as more and more gTLD people come to Tech Day. The feedback they give us as to why they come is:

- They are aware it is open to all

- The key issues being discussed are increasingly relevant to both gTLDs and ccTLDs

- They can meet other technical people and interact, where no similar technical focal point exists for gTLDs.

We expect the numbers of gTLD people to increase significantly when the many new gTLDs start to operate.

As we start to see a wider blend of technical (and non-technical) people attending the Tech day sessions, we need to be mindful of the diversity in size and maturity of many of the organizations represented by their attendees.

This will provide a huge benefit to all concerned if managed well. The smaller organizations can benefit from the experience and maturity of the larger, older organizations. The larger organizations may well benefit from the innovative and creative ideas developed by those with less resource at their disposal. This cross-fertilization of ideas can only seek to enrich the wider technical community and ultimately improve and further the DNS for all concerned.

We will need to continue to be both careful and creative with our program of talks and events to ensure balance and a wide variety of relevant content.

6 Vision

It seems clear that the organizational silos that divide ICANN meetings are becoming counter-productive and are not helping us address the shared problems that we face.

A radical but visionary solution to this was first proposed by Simon McCalla from Nominet which is that we lift Tech Day from a ccNSO managed meeting to a whole of ICANN meeting, bringing in gNSO people onto the program committee and openly inviting anyone technical to attend or present.

Such a bold move would enable the ccNSO to demonstrate leadership to ICANN in how to bring down barriers and enhance cooperation amongst registries just as this cooperation becomes increasingly important with a large increase in voices around the table.

Following the initial suggestion we have had a number of discussions with senior stakeholders within ICANN and the gNSO who were all very keen but want this officially proposed by the ccNSO Council as a matter of etiquette.

We also feel that this would be the right channel and would welcome ccNSO Council taking the lead showing the foresight we know it is capable of.

The changes brought about by both the huge change to the gTLD landscape and the opening of the DNS market through Vertical Integration will lead to a change in both the political and organizational landscape of ICANN.

The Technical Working Group can seek to be an important leader during these changes in breaking down the traditional organizational silos of the ICANN communities through a shared interest in the underlying technology of the DNS.

Providing a forum for wide ranging technical discussion, encouraging all to participate should be at the heart of the Technical Working group's vision.

Encouraging key thinkers and individuals from across the community into the organizational aspects of the group will help ensure a wide program of content and also the *pull* for many more to attend.