Certification of Backend Registry Operators
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Introduction

This paper is intended to guide discussion on a potential new initiative for the certification of Registry Operations or Services Providers. Such a process could be useful in implementing the gTLD Registry Failover Plan and assist in preparations for the launch of new gTLDs. Examples include:

- Registry Services Providers certified by ICANN could serve as a pool of available & pre-qualified backup operators in the event of registry failure.
- In the new gTLD program, a TLD applicant could select a registry operator from a list of pre-certified registry operations providers in order to meet the technical requirements for the application process, or to meet requirements for contingency planning (as a backend provider, but not registry operator). It would not be a requirement of the new gTLD program for an applicant to use an accredited provider, but those who select one could get a quick "pass" on the technical phase of the application process.

A certified backend registry operator process could help applicants meet Principles D & E and Recommendation 7 of the new gTLD recommendations and GAC Principles for New gTLDs 2.6, 2.10 and 2.11. See http://gnso.icann.org/issues/new-gtlds/council-report-to-board-pdp-new-gtlds-11sep07.pdf and http://gac.icann.org/web/communiques/gac27com.pdf.

Historical Information

The idea of creating an accredited registry operations or certified registry services provider program is not new. In March 2003, ICANN released criteria for stable registry operation to be used in the selection of new sponsored TLDs: http://www.icann.org/riodejaneiro/stld-rfp-topic.htm#D1.

Following the ICANN meeting in Rio de Janeiro, Brazil, the Registrars Constituency list engaged in wide discussion of a proposal to encourage ICANN to "move forward with the creation of an Accredited Registry Services Provider program (see http://www.dnso.org/clubpublic/registrars/Arc02/msg00938.html).

This idea was raised again by then-Board member Amadeu Abril i Abril during ICANN Public Forum in Montreal, Canada on 25 June 2003, see http://www.icann.org/montreal/captioning-forum-25jun03.htm.

In August 2003, a public comment was submitted on the RFP for sponsored TLDs regarding a Registry Operator Proposal (see http://forum.icann.org/mtg-cmts/stld-rfp-comments/general/msg00037.html).

ICANN Board member Susan Crawford included the topic of accrediting registries in a blog post on CircleID titled "Letter from Rome" on 3 March 2004 (see http://www.circleid.com/posts/letter_from_rome/). She said "…ICANN isn't purely technical (just notice who goes to these meetings, and read the UDRP), but it should act like a standards

body—opening new TLDs, accrediting registries, and providing a forum for discussion of multilingual issues."

Milton Mueller referenced the accredited registry idea from the Registrars Constituency in December 2004 during the ICANN Public Forum (see http://www.icann.org/meetings/capetown/captioning-public-forum-1-03dec04.htm).

In July 2005, the Registrars Constituency list again discussed the topic of an accredited registry services provider program (see http://gnso.icann.org/mailinglists/archives/registrars/msg03179.html).

In February 2006, the Noncommercial Users Constituency (NCUC) provided a comment as part of the new gTLD process stating "that any criteria adopted by ICANN must be carefully targeted to issues that are part of ICANN's core mission and competence, specifically global domain name compatibility. NCUC strongly submits that ICANN should develop a simple and objective 'registry accreditation' process, similar to the registrar accreditation process. We submit there should be fewer criteria, not more." See http://gnso.icann.org/issues/new-gtlds/ncuc-01feb06.pdf.

Also in February 2006, Ross Rader and Elliot Noss of Tucows prepared a thorough proposal for creation of accredited Registry Services Providers as part of a public comment on the new gTLD process (see http://gnso.icann.org/issues/new-gtlds/noss-rader-01feb06.pdf). They asserted that an accredited registry must meet certain minimal standards for:

- Database capability
- Protocol interoperability
- Zone file publication
- Data escrow
- Demonstrate stable DNS operation
- Conform to best practices and technical standards
- Will operate at performance levels consistent with existing gTLD registry operators
- Demonstrate access to adequate resources
- Plans to ensure registry will operate reliably and continuously
- Adequate preparation to ensure continuity of operation

Their proposal also included detail on contractual relationships between ICANN, a "TLD delegant", and an accredited Registry Services Provider.

The 15 March 2006 GNSO Issues Report on Technical Criteria for new gTLDs referenced the idea of creating an accredited registry operator's system (see http://gnso.icann.org/issues/new-gtlds/tech-criteria-15mar06.htm).

Adrian Kinderis of AusRegistry raised the topic again during the GNSO Public Forum in Lisbon, Portugal in March 2007 (see Annex and http://www.icann.org/meetings/lisbon/transcript-gnso-26mar07.htm).

Since March 2007, a small group of interested registries (AusRegistry, Nominet and NIC.MX) have inquired with ICANN on the idea. Email was sent to ICANN gTLD Registry Staff following the Los Angeles meeting on this suggestion.

On 31 January 2008, ICANN posted an announcement on certification of backend registry operators (see http://www.icann.org/announcements/announcement-2-31jan08.htm). This topic is likely to be discussed by the GNSO and during the session on Exploring New gTLDs during the ICANN meeting in Delhi.

Relevance to Registry Failover Plan

The draft gTLD Registry Failover Plan includes references to best practices for gTLD registries and backup registry operators (draft plan posted for comment on 20 October 2007, see http://www.icann.org/announcements/announcement-20oct07.htm). A certified registry operator process could serve as implementation for the recommendations.

Benefits

A certification program for backend registry operators would help in a number of areas:
- It would streamline the technical evaluation in the new gTLD process.
- Help create a pool of pre-qualified backend registry operators in the event of registry failure
- Improve communication by creating a direct relationship between ICANN, delegated registry, and backend provider
- Make it easier for potential new gTLD applicants to identify and select a backend registry operator
- Promote competition for backend registry services and diversify the pool of businesses in the market
- Encourage registry operators located outside of North America and Europe
- Create standards for operating a backend registry and improve Internet security and stability

Criteria for Accreditation

ICANN is working with Interisle to develop technical criteria as part of the RFP for the new gTLD process. Interisle could help develop criteria needed for the certification program. If certification is to be implemented, the criteria should be fully developed prior to the publication of the RFP.

ICANN may look for input from a small group of gTLD and ccTLD registry operators for input on technical criteria. The informal Registry Continuity Assistance Panel (a small group of 5 gTLD and 5 ccTLD registry representatives formed following the ICANN meeting in San Juan, Puerto Rico) may also be available to provide input.

The draft Best Practices Recommendations for registries could serve as a base for the certification criteria (see http://www.icann.org/registries/failover/draft-plan-best-practices-20oct07.pdf).

For the accreditation of registrars, prior to the creation of the current Registrar Accreditation Agreement, ICANN developed a Statement of Registrar Accreditation Policy (http://www.icann.org/registrars/policy_statement.html). The statement defines the minimum qualifications for running a registrar and basic terms and conditions for an accreditation agreement.

Cost

ICANN may consult with an economist to assist with the development of cost requirements, if any, for the certification program.

Annex

ICANN Public Forum, Montreal, Canada, 25 June 2003, see http://www.icann.org/montreal/captioning-forum-25jun03.htm.

> Amadeu Abril i Abril: … The next thing is the question of the registry operator that you mentioned here. And I think that here we all understand that we need a process for somehow accrediting registry operators. What worries me is doing that in parallel here and saying that registry operators that have already contracts or agreements, I think it says here, which means basically unsponsored registry operators, because perhaps I'm wrong, but let's take, for instance, Poptel for dot-com, or dot aero -- they are operating with registry operators, but they have no agreement.
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> It's the sponsor organization that has the agreement, not the registry operator. Let's think JPNIC or whoever. I don't think they are interested. But probably they would also have the capability. Or even other parties, I don't know who.
>
> But probably we should uncouple that and not put what, in my view, looks like a pressure on the applicants to select one of the existing unsponsored TLD operators to be the safer way not to have problems in this concrete process.
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> And these were some of the comments. I have many more, but I think probably many other people will have them.
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> Vinton Cerf: Thank you, Amadeu. Karl.
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> …
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> Karl Auerbach: The other question I have is, with respect to some of the preferences for existing registries, I understand that is a matter of looking essentially; it's a known quantity. But I'm wondering how we deal without that becoming essentially a preference for incumbents.
>
> Louis Touton: I think that's fair and one thing raised by Amadeu in his comments also. And it's a balance between do you really want to require a bunch of data from somebody where you already know the data, which seems like a futile exercise, or do you want to be across the board for everybody.
>
> And I think you've identified the concerns.
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> If they're an unknown quantity, you need the data. If they're a known quantity, you have less need for the data.

Karl Auerbach: I don't want to unfairly rule out any new candidates. Because I think part of our goal is to expand the number of providers of these services rather than keeping it within a fairly close circle.

Louis Touton: I think that's right, though it's probably not too likely in the context of this particular proposed RFP for a limited number of sponsored TLDs, which would be small TLDs, that you're going to support much in terms of additional back-end infrastructure on the business that's involved here.

Discussion from ICANN Board meeting, 26 June 2003

Amadeu Abril i Abril: …And I have, as I sent to the mailing list, an alternative proposal. The alternative proposal is composed of some things….We should not disfavor all those who are able to provide registry operator services.

So I would at least extend this so we have some proven capacity besides the fact of having a contract with ICANN. For instance, they are operating in reality.

One of the TLDs of the gTLDs of the other restricted TLDs, or even ccTLDs that have shared registration system and more than, say, 50,000 sorry, I put 5,000 in the e mail 50,000, you know, as most of the sTLDs would be small registration TLDs. They should be able to act as registry operator now.

Also I would like to instruct the CEO to start a parallel process, sorry, to present a plan for starting a parallel process of accrediting registry operators as such.

Because we will need that in any future expansion of the DNS.

Thanks.

Vint Cerf: Okay. Thank you very much, Amadeu.

I would surmise, since we aren't going to be editing the text of the RFP today, that many of these comments should become a part of the public record referring to the RFP so that at the time that we revisit the RFP after the public comment period, they can be taken into account. Amadeu has his hand up for a –

Amadeu Abril i Abril: Sorry. A point of order that I forgot. I sent that to the list the first time, I may have said that. But Louis has reminded me that perhaps I should explain quite clearly.

First, yes, I have friends, and had some discussions, even if no financial interest, with people that were considering submitting new applications for this round of sponsored TLDs. Second, I have no financial interest, but I have a longstanding historical relationship with core, which is one of those registry operators for a sponsored TLDs but that does not have a direct contract with ICANN, because the contract is the sponsoring organization. Therefore, my amendments can be read as favoring those positions, and therefore perhaps I would abstain from voting. But I felt that I had an obligation to explain the logic of that.

http://www.icann.org/meetings/capetown/captioning-public-forum-1-03dec04.htm

Milton Mueller: … There is, as I understand, somebody, maybe it was Elliot or somebody associated with the registrar constituency, proposed a registry accreditation process some time back.
So if you have concerns about failure of registries, about the technical feasibility of registries, you have -- you could discuss this registry accreditation process and make people go through that before they can apply for a TLD.
So there's another element of your process that could be built into it.

GNSO Public Forum, ICANN Meeting in Lisbon, Portugal, 26 March 2007, see http://www.icann.org/meetings/lisbon/transcript-gnso-26mar07.htm.

>> ADRIAN KINDERIS:

Adrian Kinderis from AusRegistry.

Kurt, with respect to the technical evaluation, has ICANN put any thought to potentially streamlining the process with respect to the registry backend services and potentially doing some sort of pre-accreditation, like a registry accreditation -- excuse me -- for potential backend providers so that that was taken out of the evaluation period and potentially made it easier? So that, you know, would be something that you would have a potential list of accredited registries, and if their name was put to an application, then that criteria would not have to be reviewed?

>>KURT PRITZ: I think so. I think -- yeah, the really short answer is, yes. The longer answer is, the technical panel in the last round, you know, there were different issues with every application. And I'm not so sure there wasn't value added by raising those issues during the application process. But I think one of the hurdles for having a backend provider should be easily met by that sort of accreditation.

>> ADRIAN KINDERIS:

If I may, I would just for argument's sake, like to extend it out to not only gTLDs, existing gTLD registries, obviously, they'll work up stats, but this could be open to ccTLD registries or anybody else who wanted to get some sort of preapplication, preaccreditation?

>>KURT PRITZ: I agree.