

Strategy: Introduction of New Generic Top-Level Domains

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Introduction

The development of an appropriate process and policy for the creation of new generic top-level domains (gTLDs) is central to fostering choice and competition in the provision of domain registration services, and as such is critical to the promotion of ICANN's core values. New gTLDs have been a topic of discussion within ICANN and the broader Internet community since the creation of ICANN in 1998.

ICANN is committed to developing and implementing a comprehensive strategy for selecting new gTLDs using predictable, straightforward, transparent, and objective procedures that preserve the stability and security of the Internet. ICANN's past gTLD introductions were limited to proof of concept tests in the Year 2000 round that resulted in the introduction of seven new gTLDs and this year's round considering ten applications for Sponsored TLDs (sTLDs), a focused sub-set of gTLDs.

The questions to be addressed in the implementation of a new gTLD strategy are complex and draw on technical, economic, operational, legal, public policy and other elements. Moreover, many stakeholders in the global Internet community will be interested in participating in the implementation of the strategy. Therefore, it is incumbent on ICANN to propose a predictable and transparent strategy that includes all steps necessary to successfully introduce new gTLDs.

Background and History

The goal of expanding the top-level domain namespace precedes ICANN's establishment. The U.S. Government's "Statement of Policy, Management of Internet Names and Addresses," 63 Fed. Reg. 31741 (1998) (commonly known as the "White Paper") included the following section describing the "purpose" of the new, not-for-profit organization of Internet stakeholders to administer the Internet's name and address systems:

Purpose. The new corporation ultimately should have the authority to manage and perform a specific set of functions related to coordination of the domain name system, including the authority necessary to:

- 1) set policy for and direct allocation of IP number blocks to regional Internet number registries;*
- 2) oversee operation of the authoritative Internet root server system;*

3) oversee policy for determining the circumstances under which new TLDs are added to the root system¹ [emphasis added]; and

4) coordinate the assignment of other Internet technical parameters as needed to maintain universal connectivity on the Internet.

Adding new gTLDs to the root system falls within ICANN's core mission of coordinating the global Internet's systems of unique identifiers. It is also in keeping with ICANN's core values, including the use of market mechanisms and the promotion of competition in the registration of domain names. ICANN's goal as a non-profit public benefit organisation is to maximise public benefit derived from the Internet's system of unique identifiers. A properly executed strategy for opening the root-level domain-name registry will in turn provide increased public benefit to the global Internet community through increased competition and user choice.

The Opening of the Root-Level Domain-Name Registry

The creation of an open registry at the root-level of the Internet's domain-name system is a complex and ambitious project. ICANN is committed to define and implement a predictable strategy for selecting new gTLDs using straightforward, transparent, and objective procedures that preserve the stability and security of the global Internet. This means that ICANN is preparing to begin the process of allocating and implementing new gTLDs. (There are currently 266 active TLD registrations in the Internet's root-zone file: 15 gTLDs and 241 ccTLDs.)

While the DNS was once limited to country-code TLDs and eight gTLDs (.arpa, .com, .edu, .gov, .int, .mil, .net, and .org), the formulation of this strategy is intended to provide a roadmap to expand the Internet's root-level domain-name registry through the introduction of new gTLDs.

As part of the planning efforts to introduce new gTLDs, ICANN recently studied the experiences of seven organizations that launched new top-level domains during ICANN's initial proof-of-concept round of gTLDs in November 2000. Those organizations launched the following new gTLDs: .aero (for the air-transport industry), .biz (for businesses), .coop (for cooperatives), .info (for all uses), .museum (for museums), .name (for individuals), and .pro (for professionals).

Some of the challenges that faced these new gTLD registry operators and sponsors included determining an allocation method for registrations, coping with a "land rush" for

¹ The responsibility for adding new gTLDs to the root system is also reflected in ICANN's MOU with the US Department of Commerce, with ICANN committed to, "Continue the process of implementing new top level domains (TLDs), using straightforward, transparent, and objective procedures...."

desirable registrations, developing mechanisms to prevent consumer confusion associated with cybersquatting, and handling disputes over the rights to particular strings.

To learn from these past experiences, reports and recommendations containing valuable insights and perspectives for the introduction of new gTLDs have been made available this year from the ICANN community, including academics, and international organizations.

Additional reports (in process) regarding technical impact and consumer benefit will also help in understanding how the introduction of gTLDs affects the domain name space and the market it entails.

In the coming months, following the strategy outlined in this document, the ICANN community will be called upon to help develop answers to many similar questions that have confronted organizations seeking to open new domain-name registries. Some of these questions are: how best to allocate registrations, how best to cope with an expected "land rush" of interest in new gTLDs, how best to resolve competing claims over particular gTLD strings. In addition, new sets of questions face ICANN and the globalized Internet, such as: how to accommodate demand for registration of strings using international character sets (IDNs), and which allocation method(s) will best advance ICANN's public-benefit mission.

The following strategy may lead to the opening of the Internet's root-level domain-name registry. The process will work to gather community input, analyze the issues, and, where appropriate, will result in the opening of the market for domain registration services. Implementation of this strategy will work to gather community input, analyze the issues, and, where appropriate, will result in the opening of the market for domain registration services.

Strategy for Implementation

The following strategy must be followed in all cases to ensure that each potential type of new "product" receives full consideration and scrutiny before being introduced to the name space. For example, studies may indicate that sTLDs will better enhance the name space as opposed to other forms of gTLDs. In addition, it may be determined that the DNS will be best served through implementation of IDN top-level names.

In these cases and others, the following strategy must be followed to ensure that each potential type of a new "product" receives full consideration and scrutiny before being introduced to the name space. Various reports have discussed this matter, such as the OECD Report dated 4 May 2004, "Generic Top Level Domain Names: Market Development and Allocation Issues," and Summit Strategies report dated 10 July 2004, "Evaluation of the New gTLDs: Policy and Legal Issues." Similar reports are in work from WIPO concerning intellectual property issues, the IAB, SSAC and RSSAC concerning Internet security and stability issues, and other entities on further aspects.

Additional issues have been and are being brought forward by various working groups such as the IDN workshop held at ICANN's meeting in Kuala Lumpur and the [ICANN] President's Committee on IDNs. Contributions in the form of white papers, articles and treatises have defined or refined issues. Examples are, "ALAC Response to the Proposed sTLD RFP and Suggested Principles for New TLD Processes," 9 October 2003; and "Four Issues in Auctions and Market Design," by R. Preston McAfee, 8 May 1998.

Issues Associated with Establishing New Top-Level Domains

Significant issues that have been raised thus far are associated with the:

- Introduction of Internationalized Domain Names (IDNs) at the Internet's top-level, in light of experiences with IDNs at the second and third levels of the DNS.
- Determination and implementation of appropriate allocation methods. The OECD recently recommended the use of a price mechanism as a method for allocation of TLDs; see OECD Report dated 4 May 2004, "Generic Top Level Domain Names: Market Development and Allocation Issues." Allocation methods incorporating a price mechanism may include, for instance:
 - Auctions where each candidate first demonstrates the ability to meet certain technical, financial, and other baseline criteria, after which gTLD will be allocated through a carefully designed auction model,
 - Tender processes, where qualified applicants are allocated gTLDs based on offering to operate them at the lowest price,
 - 'Beauty contests', where candidate applicants are assessed according to a weighted set of technical, financial, price and other criteria, and those qualified applicants are assessed according to a weighted set of technical, financial, price and other criteria,
 - Comparative selection methods where candidate applications are compared to one another to designate a pre-determined, finite number of registries among many applicants,
 - On-going programs where baseline criteria for the establishment of new gTLDs are published and maintained. Applicants can, at any time, apply for a new gTLD. If the applicant meets the criteria, they will enter negotiations to execute an agreement that provide for the establishment of a new gTLD registry.
- Determination of the appropriate level of scrutiny of TLD applicants' business plans and capitalization.
 - Should the strategy serve to ensure the viability of the business model of the proposed gTLD or should the strategy serve to protect the user community and the integrity of the DNS in the event of a registry failure? Discussion to

date indicates that the strategy should serve to protect the registrant in event of failure because:

- failures are inevitable regardless of the level of scrutiny employed,
 - testing the business model is, to a certain extent, subjective in any case, and
 - ICANN's core mission does include protecting the integrity of the DNS in the event of failure but not the prevention of business failure itself.
- Determine of the appropriateness of various business models (e.g. for-profit, not-for-profit business, and others) and policy development models for various types of TLDs: sTLDs, restricted TLDs, unrestricted TLDs.
- Type of gTLD considered for designation. Some forms may offer distinctive advantage in enhancing the namespace over others. TLD types or definitions are described by sponsored v. unsponsored and restricted v. unrestricted.
 - Generally speaking, an unsponsored gTLD operates under policies established by the global Internet community directly through the ICANN process, while a sponsored gTLD (i.e., .aero, .coop, and .museum) is a gTLD that has a sponsor representing a narrower community that benefits from the gTLD. The sponsor thus carries out delegated policy-formulation responsibilities over many matters concerning the sponsored gTLD.
 - Any domain names may be registered in the four unrestricted, unsponsored registries (.com, .info, .net, and .org); while the other restricted, unsponsored registries (.biz, .name and .pro) have limited purposes.

These core issues, while not exhaustive, cover many of the key areas requiring resolution so that a comprehensive implementation may be devised. The addition of new gTLDs and the global growth of the DNS will create further issues for consideration. Therefore, this strategy for implementation of new TLDs is constructed in a style that can be reused over time and it can be adapted to changes in the environment. The strategy is developed in the form of a process as described in the following sections, and as presented graphically in Figure 1.

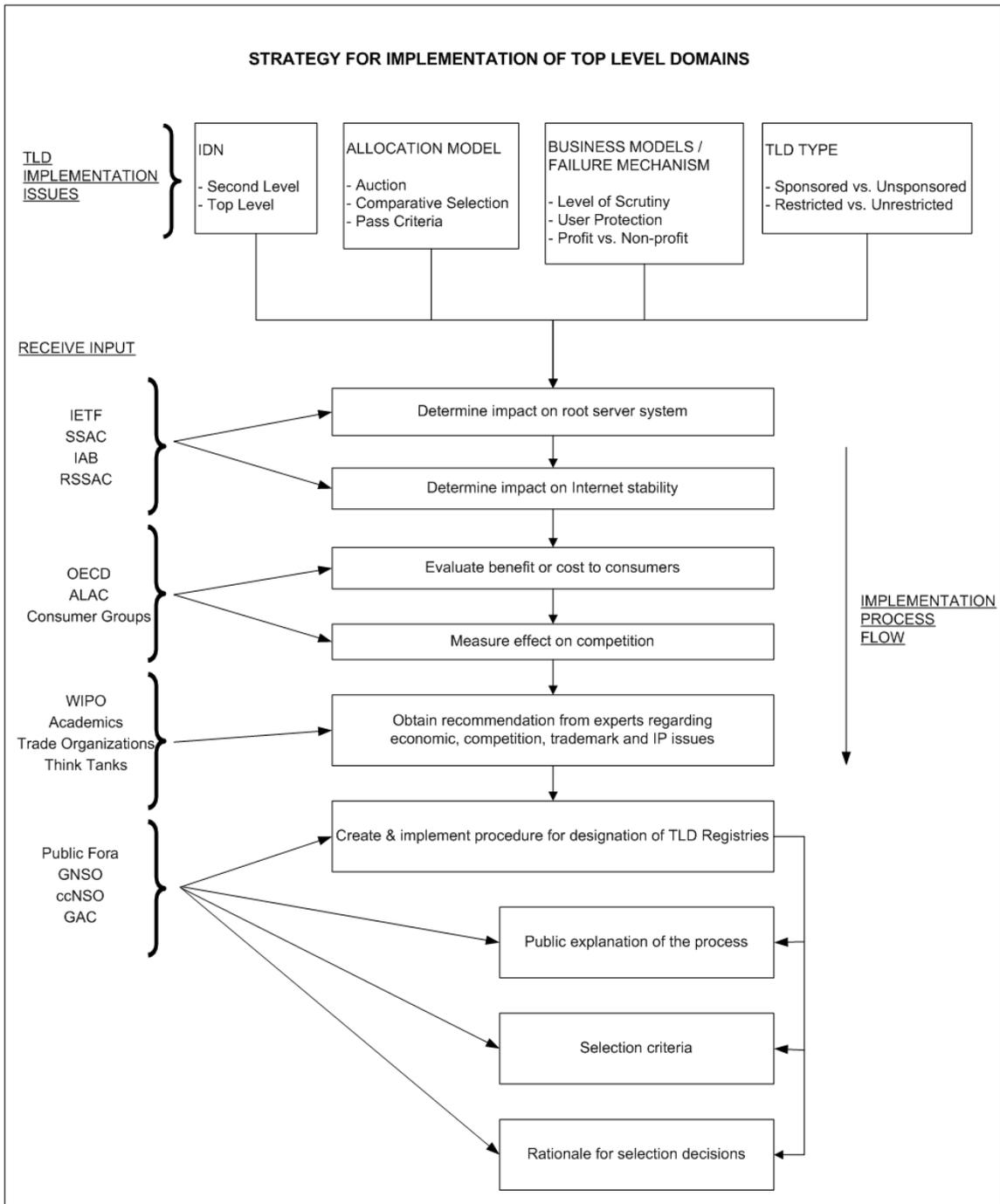


Figure 1: Graphic presentation of the strategy for implementing new gTLDs

Process for Addressing and Resolving the Issues

Once the core issues that must be considered are identified, the strategy for devising the implementation plan is defined by these steps:

- [Why is it an issue?] Consideration of how each identified core issue affects:
 - the root server system and the security and stability of the Internet;
 - competition and the value or cost to consumers;
 - usability to consumers and users of the Internet; and
 - the environments of several key constituencies such as business, intellectual property and the at-large.
- [Who should address the issue?] Consideration of inputs from the various supporting organizations, advisory groups and other key constituencies and contributors.
- [How should the issue be addressed?] Development of a procedure to direct activities leading to the designation of a gTLD. The procedure must include selection and evaluation criteria developed in an open and transparent manner and include rationale for decisions.

Development of an implementation strategy can best be described through an example. For instance, one of the current identified issues is whether and how ICANN should allocate IDN TLDs. The introduction of top-level IDNs might for example affect:

- the operation of the root-server system,
- Internet stability issues, e.g. application compatibility
- Competition in the marketplace
- Intellectual property
- Cultural and linguistic concerns

Therefore, the strategy outlined in Figure 1 can be applied to this example as described in more detail in the following sections.

Participation by Internet Stakeholders

After the issues and effects are identified, the next step in implementing the strategy will require the active involvement of ICANN's supporting organizations and advisory committees, and other interested, capable stakeholders. The input of these organizations will be applied to resolving the issues within their respective areas of expertise.

- For issues concerning the stability and security of the Internet and any impact on the root server system, ICANN will receive inputs from expert technical bodies such as the RSSAC, SSAC, IAB and IETF. In the IDN example mentioned above, these bodies would be called upon to evaluate concerns related to the operation of the root-server system, and Internet stability issues, e.g. application compatibility.

- For issues concerning consumer benefits and costs, and for measuring effects on competition, ICANN might receive information from governmental organizations responsible for consumer protection and competition issues, intergovernmental organizations such as the OECD, ICANN's ALAC, and other groups such as consumer advocacy organizations. In the IDN example discussed here, these groups will describe the value to the marketplace realized through the introduction of IDNs in the top-level. The value realized can be balanced against the costs and risks described in the technical information received from the groups mentioned above.
- For other issues such as geopolitical names, intellectual property and trademark protections, ICANN might receive information from WIPO, academia, trade organizations, think tanks, consultants and ICANN's GAC. In the case of IDN names, WIPO could for example offer guidance regarding intellectual property protections where top-level names are translated into different languages.
- Think tanks and consultants may be commissioned to provide economic models of the marketplace. These groups may consider the issue of allocation methods (e.g., auctions, comparative selection, etc.). Their input will describe the long-term ramifications of the various allocation models to competition and other market place issues.

ICANN will solicit, receive and process this information in an open transparent manner that is consistent with the ICANN bylaws and charter that includes the following steps:

1. Initial studies and evaluations solicited and/or received
 - a. Solicit appropriate studies/evaluations
 - b. Post studies as received for public comment
2. Development of analysis and recommendations regarding initial studies/evaluations
 - a. Analysis of studies/evaluations
 - i. Determine which questions require further review
 - ii. Refer open questions to appropriate constituencies/experts with recommendations for process and timelines to be followed to facilitate rapid resolution of the open issues
 - b. Analysis of public comment
 - c. Post staff analysis for public comment
 - d. Prepare reports for the ICANN Board of Directors and request Board resolution as appropriate or required by the bylaws

Creating a Procedure for Designation of gTLDs

Synthesizing the outputs developed through the process described above will enable the implementation of a procedure for the designation of gTLDs. Based on ICANN's unique organizational structure, this synthesis and balancing process will incorporate the active participation of ICANN supporting organizations and advisory committees including the GNSO, ccNSO and the GAC.

Following the outline in Figure 1, the creation of a procedure requires:

- the identification of evaluation criteria,
- a public explanation of the process, and
- development of rationale for decisions.

Carrying forward the IDN example from above, the ICANN community will be called upon to give advice balancing the various technical, economic, and other effects the introductions of IDNs will have on the DNS. For example, the technical community may identify significant hurdles impeding the introduction of top-level IDNs. However the business and consumer communities may identify great benefits to be derived from the availability of fully-internationalized domain names, e.g. significant promotion of competition, growth in the number of registrations, and choice for end-users.

The synthesis requires a balancing of the costs associated with the technical barriers against the benefits potentially realized for consumers and the marketplace.

Test programs, e.g. an IDN proof-of-concept, could provide the opportunity to verify theoretical claims, both technical and economic, made in the inputs gathered during the initial steps. Test programs might be recommended by anybody during the strategy implementation process. Test programs may arise from recommendations made by technical, economic or governmental groups during the earlier stages of the process.

ICANN's Supporting Organisations and Advisory Committees will also provide recommendations for the selection criteria to be employed in the designation of the gTLDs. The inputs received at the earlier stages will be synthesized in order to establish technical, business and other criteria to be used in the selection and evaluation process.

The recommendations of the Supporting Organisations and/or Advisory Committees will be vetted through public comment periods that may result in changes to the recommendations.

Provided with appropriate inputs from the various constituencies and with recommendations of the Supporting Organisations and the GAC, ICANN will develop the procedure for designation of new gTLD registries. Those steps include:

1. Reviewing and synthesizing outputs and developing recommendations regarding new gTLD introduction processes
 - a. Analysis of outputs from external experts and advisory committees, including advice from the GNSO, ALAC, and GAC,
 - b. Consideration of public comment on studies and draft recommendations,
 - c. Preparation of reports for the ICANN Board summarizing analyses, recommendations, and comments,
 - d. Adoption of the implementation procedure based on recommendations of process above,
2. Monitor implementation results, feedback, and development of new issues
 - a. Monitor results of new TLD implementation against models and assumptions
 - b. Monitor the performance of the new TLD operations against the expectations derived from the findings of the various technical and business advisory groups

It is important to note that the procedure developed and all the work that contributed to it (technical and economic study, test programs, consensus based recommendations) are only applicable to the particular set of issues against which the procedure was derived. Therefore, as the DNS evolves with the implementation of new registries, business models and technical developments, new issues must be considered in the implementation of new gTLDs. Therefore, the implementation procedures will be continually updated using the same strategy and flow described above as issues change.

Proposed Time Line for Implementation

This strategy, posted on 30 September 2004, may be altered in accordance with public comment. Revisions will be posted in a manner to support the 31 December 2004 commencement of implementation requirement in the Department of Commerce Memorandum of Understanding.

Although implementation of the process defined above and in figure 1 is required to commence on 31 December 2004, many steps in that process have been initiated. The solicitation of inputs from the OECD, SSAC, WIPO, IAB, and other key entities, are part of the implementation process described in figure 1. As is appropriate, these reports will be posted for public comment. ICANN is in receipt of some reports. To the extent independent entities can be scheduled, all meaningful inputs will be received by 30 October 2004.

ICANN staff report has commenced synthesis of these reports. These reports are being used to guide development of issues pertaining to: allocation models, use of IDNs, and

TLD type (e.g., sponsored v. unsponsored) as well as others. (See figure 1.) This synthesis of issues will complete by 31 December 2004 and will result in a new round of community consultation as described by the model strategy. That consultation and those efforts will target the release of the next round of solicitation for new TLDs.

Test programs, if identified as the best method of gaining information, can be implemented readily at any time in the process.

Following this process is intended to result in community consensus on the key issues, enabling ICANN to move forward with a defined, transparent, and objective process for the adoption of new gTLDs.

Conclusion

The strategy described in the present document fulfills the requirements outlined in the US Government's 1998 "Statement of Policy, Management of Internet Names and Addresses" 63 Fed. Reg. 31741 (and the terms of the MOU between ICANN and the US Department of Commerce).

Implementation of this strategy will introduce competition and choice to the market for domain registration services. The implementation of new gTLDs will follow a transparent and straightforward allocation process, and will ensure the stability and security of the Internet, incorporating relevant community guidance on each of the issues identified through the implementation process.

This strategy has the flexibility to adapt to new sets of issues as they arise through the evolution of the DNS, and can also adapt to changes that may occur in the marketplace, to new industry standards, and to other issues as they arise.

The next steps in implementing the strategy include analysis of the currently available reports and expected additional reports as they become available. These reports will provide a complete set of current issues that must be addressed as part of the strategy described in this document.

Once the full range of issues associated with the introduction of gTLDs has been identified, the processes described in this document will be employed to resolve each issue. That resolution will result from the inputs of various parties across technical, business, and other areas; balancing the costs and benefits identified in those inputs; and developing solutions that best benefit the Internet community as a whole.

This process will commence prior to the end of this year. As might be expected, some of the issues discussed will resolve in a straightforward manner. Others, such as implementation of top-level IDNs and possible restrictions on geopolitical names are complex and may require significant iteration for optimal resolution.

The model developed for the implementation of new gTLDs must be technically and economically robust. That is, changes in the marketplace or technical innovation should not require changes to the implementation model; these strategies and procedures should remain viable over a relatively long period. The flexible nature of this strategy provides the first step in achieving that end.

In summary, new gTLDs will be introduced with consideration for the concerns of the technical, business, and other relevant communities, and the recommendations of government agencies, supporting organizations, advisory committees, and the Internet community at large.