Single-Character Second-Level Domain Name (SC SLD) Allocation Framework
13 June 2008

Executive Summary

Following the direction of the GNSO Council, and community input, ICANN has developed a proposed allocation framework and use of funds from the allocation of single-character second-level domain names (SC SLDs) in existing gTLDs. ICANN is proposing an auction mechanism and disbursement of funds toward areas of public good for the Internet community.

Single-character domain names are presently reserved in all 16 gTLD registry agreements. There is substantial community interest for the allocation of single-character names in existing gTLDs, including strong interest from a number of gTLD registry operators and sponsors.

This document is intended for community discussion, and provides a rationale for the auction of SC SLDs as an allocation method. It also proposes several uses of funds realized as a result of the auction. These include, but are not limited to:

- Returning a portion to registrants in the form of fee reductions;
- Funding initiatives associated with ICANN's security and stability role;
- Improving accessibility to the Internet and to the ICANN multi-stakeholder model.

(The allocation of single-character names is likely to generate significant revenue). Based on inputs previously received, ICANN is seeking endorsement of this framework for the benefit of the greater Internet community.

Proposed Allocation Method

The public comment forum on allocation methods[1] generated a diversity of responses on potential allocation methods for single-character names at the second-level. Potential methods included: first come, first served, random lottery, auctions, and registry allocation through a request for proposals process. Most commenters recognized that single-character domain names would be a scarce resource and are likely to have huge demand in the market.

The gTLD registries currently employ diverse models for allocation of second-level domain names. These allocation mechanisms vary depending on whether a registry is sponsored or unsponsored, open, or restricted. Allocation by registry may vary further depending on whether the registry releases names on a first come, first served basis, requires registrants to be authenticated, credentialed, or members of a sponsored community, uses a request-for-proposals system for select names or uses auctions for premium names.

The Synthesis document[2] noted that auction would be the most efficient and fair method of releasing single-character domain names at the second-level, while potentially maximizing value for the Internet community.[3] This conclusion has considerable support in other writings.

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[1] Comment Forum on Allocation Methods, 16 October to 15 December 2007, http://www.icann.org/public_comment/public-comment-2007.html#allocationmethods

[2] Synthesis on Single-Character Domain Names at the Second-Level (see http://gnso.icann.org/drafts/icann-synthesis-on-sldns-27feb08.pdf)

[3] See Synthesis document at page 3, Public Forum at http://forum.icann.org/lists/allocationmethods/; "Generic Top-Level Domain Names: Market Development and Allocation Issues," Organization for Economic Cooperation and Development paper 13 July 2004, see http://www.oecd.org/dataoecd/56/34/32996948.pdf.

In a paper by Karl Manheim and Lawrence Solum,[4] they note that the "second-level domain name space is scarce," and in the second-level space, different names have different prices. Single-character names are scarce, and in most cases are in reserve.

"The most desirable domains are those which are both easy to remember and which also have commercially exploitable symbolic, generic or trade meaning." Manheim and Solum suggest that "this scarcity creates value, which in turn creates a market where values can be realized."

Most comments support that auctions be used for the allocation of SC SLDs in gTLD registries, but differences in allocation methods among registries and sponsors may vary depending on a number of factors.

The OECD has suggested "[o]n balance the economic arguments favour the use of auctions in some form, where scarcity exists, in relation to the goals set by ICANN for allocation procedures."[5] Although the OECD paper was primarily focused on new gTLD strings, many of the same arguments apply in the case of single-character names.

The OECD paper highlighted both that auctions are effective for determining the market value and that auctions are advantageous even if revenue maximization is not a primary objective.

> Economic theory and experience suggest that auctions are one of the best available mechanisms for realising the true market value of a resource, as the price is decided by those with the best knowledge of the market…As a not-for-profit organisation, revenue maximisation may not, in fact, be an objective ICANN sets for itself…This does not, however, negate the benefit an auction can yield in terms of determining the value of a resource or in being a tool for efficient allocation.[6]

As a non-profit organization, it is important that auctions fit within ICANN's mandate to coordinate at a global level the Internet's systems of unique identifiers. Any allocation of single-character names should not negatively impact the operational stability, reliability, security and global interoperability of the Internet. The allocation of single-character names may apply to the following Core Values: "where feasible and appropriate, depending on market mechanisms to promote and sustain a competitive environment," and "introducing and promoting competition in the registration of domain names where practicable and beneficial for the public interest."[7]

Manheim and Solum note that ICANN, as a non-profit, "must promote a public purpose that inures to the 'broader good'.[8] They suggest that "the public purpose of market allocation policies is well demonstrated by theory…and by ICANN's own statement of purpose."

Inputs received during the comment period state that auctions would provide advantages over other allocation mechanisms, such as first come, first served and random lottery. First come, first served could be gamed and would provide a windfall to the registrant, and not benefit the greater Internet community. Random lottery would raise legal issues in many jurisdictions.

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[4] "An Economic Analysis of Domain Name Policy," Hastings Communication and Entertainment Law Journal (2003) (by Karl M. Manheim and Lawrence B. Solum) (see http://law.bepress.com/sandiegolwps/le/art1), p. 414.
[5] "Generic Top-Level Domain Names: Market Development and Allocation Issues," Organization for Economic Cooperation and Development paper 13 July 2004, see http://www.oecd.org/dataoecd/56/34/32996948.pdf.
[6] Id., p. 44.
[7] ICANN Core Values, see http://www.icann.org/general/bylaws.htm#I.
[8] Manheim and Solum, p. 428.

The Synthesis document listed the suggestions that ICANN had received for different types of auctions:

- auctioning of slots for the right to choose an unallocated domain name;
- sealed-bid auction (a type of auction where all bidders simultaneously submit bids so that no bidder knows the bid of any other participant);
- monthly or staggered auction;
- Dutch auctions (a type of auction beginning with a high starting price which is lowered by the auctioneer until some participant is willing to accept the auctioneer's price or until a predetermined reserve price is reached);
- English auctions (a type of auction beginning with a reserve price and taking successively larger bids until no participant is willing to top the highest bid); and
- managed or qualified auction for those with prior rights.

ICANN will work with its auction design consultant, Power Auctions LLC[9], to analyze available auction models and present a detailed proposed auction model for community consideration.

While the precise details of the auction model remain to be developed, it is anticipated that the following broad principles will be followed:

- Auctions should fit with ICANN's Mission and Core Values;
- Any auction process should be self-funding;
- Auctions will be open and transparent;
- Auctions will be conducted on the Internet;
- Various single-character domain names will be auctioned simultaneously; and
- Bidding deposits or financial guarantees will be required so as to minimize instances of bidders attempting to renounce their bids.

As one example, it is anticipated that the ***ascending-clock auction*** might be the basic component of the auction model. In an ascending-clock auction, the auctioneer starts at a low price and announces successively higher prices. At every price, each bidder is asked to indicate its willingness to purchase the item. The price continues to rise so long as two or more bidders indicate interest. The auction concludes at the first price such that fewer than two bidders indicate interest, and the item is awarded at the final price.[10]

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[9] Power Auctions is described in further detail on page 4.

[10] For background information on ascending-clock auctions in theory and practice, see: "Auctions (Theory)," New Palgrave Dictionary of Economics, Second Edition (2008) (Lawrence M. Ausubel), downloadable at http://www.powerauction.com/docs/auction-theory-new-palgrave.pdf; and "Auctioning Many Divisible Goods," Journal of the European Economic Association, Vol. 2: No. 2-3, pp. 480-493 (April-May 2004) (Lawrence M. Ausubel and Peter Cramton), downloadable at http://www.powerauction.com/docs/auctioning-many-divisible-goods.pdf.

Another model anticipates that various single-character domain names may be auctioned simultaneously. This has the advantage of providing bidders with information about the level of demand for related names.

Other auction design features will be included so as to minimize gaming and to encourage an efficient auction outcome.

Auction Design Consultant Selection Process

ICANN conducted a selection process to retain an auction design consultant to assist ICANN with various auction needs: 1) to develop models for the resolution of contention among applicants for new generic TLD strings, 2) for the disposition of data from failed registrars or registries, and 3) for the allocation of single-character names at the second-level.

The process was initiated in January 2008 following initial consultations with experts at Loyola Law School and the Organization for Economic Cooperation and Development (OECD). A call for expressions of interest was posted on the ICANN website on 18 January 2008 to determine whether there were auction design experts interested (see http://www.icann.org/announcements/announcement-18jan08.htm).

ICANN set the following qualifications for the auction consultant(s):

1. Broad international experience and presence
2. Prior experience in auction design, management and implementation. Work with non-profit companies, governments, or other entities with public-interest mission (as opposed to revenue generating mission) is preferred.
3. Worldwide business locations with team members who have a global outlook and focus
4. Principal team members with extensive experience in auction design
5. A well-tested and successful software platform and extensive software development experience may also be relevant.

Potential experts should also be from an established organization (not individuals) and have a working knowledge and ability to communicate in English. Prior experience with telecommunications, Internet or domain name, energy/utility or other asset auctions was also noted as particularly relevant.

ICANN selected Power Auctions LLC (see www.powerauction.com) as the expert that best fit ICANN's criteria for an auction design consultant. Power Auctions has an international team composed of noted experts in auction design and implementation. Power Auctions and its affiliate, Market Design Inc. (see http://www.marketdesign.com/), have implemented auctions for electricity (Belgium, France, Germany, Spain, US), natural gas (Denmark, France, Germany, Hungary) and greenhouse gas emission reductions (UK). They have also implemented a prototype auction for airport landing slots (for the FAA in the United States) and have assisted governments in auctions of telecommunications spectrum (in Canada, Singapore, and Trinidad and Tobago).

Power Auctions will assist ICANN by developing auction models for use in the new gTLD process, in situations involving failed registrars or registries, and a potential allocation method for SC SLDs. Power Auctions' auction model on single-character names will be published for community evaluation and endorsement in a subsequent document.

Proposed Use of Funds

Based on the comments received during the allocation methods forum conducted from 16 October to 15 December 2007 and GNSO RN Working Group (RNWG), there is general community support for the use of funds resulting from the allocation of single-character names toward areas of public good of the Internet community.

The following uses were suggested during the comment period on single-character names:

- Improving Internet infrastructure
- Capacity building for creating registries and registrars in developing areas
- Lowering costs for applicants from developing areas to become registry operators or lowering costs for applicants for new gTLDs
- Creating grants for specific projects for the benefit of the Internet community (such as creating grants to assist those in developing areas in applying to become registrars)
- Improve participation in ICANN and translation for ICANN participants
- Lowering registration fees
- Supporting ccTLDs of developing countries
- Creating a security fund to expand use of secure protocols, conduct research and support standards development organizations in accordance with ICANN's security and stability mission
- Promoting the stability, utility and universal accessibility of the Internet

Funds derived from the auction of single-character names should fit with ICANN's mission and Core Values. The OECD paper from 13 July 2004 titled Generic Top Level Domain Names: Market Development and Allocation Issues (see http://www.oecd.org/dataoecd/56/34/32996948.pdf), mentioned that auction revenue could be used by ICANN or "might be returned to the Internet community in ways that could benefit users and prospective users" (see page 44). The OECD paper cites an example from Australia where auDA conducted an auction of second-level reserved domain names. Funds resulting from the auction were allocated to taxes, contingencies, and the creation of the auDA Foundation.

Manheim and Solum suggested that auction revenue could be used to address issues related to ICANN's funding, by providing alternative sources of funding and reducing the need to rely on contributions from registries. They also assert that auction proceeds could be used to pursue public interest projects consistent with its core mission, such as efforts to introduce Internationalized Domain Names, improve outreach, grant funds to assist applicants for gTLDs from developing countries and enhance security and stability of the Internet.

A use of funds model may include:

- A percentage of funds should be applied to Internet security and stability, including support adoption of secure Internet protocols and standards development

- A percentage of funds should contribute toward participation from developing countries in ICANN's activities and support capacity building for potential TLD applicants and ccTLDs
- A percentage of funds should be applied to ICANN's reserve as a contingency
- A percentage of funds should be used to lower registration fees and fees received from ICANN-accredited registrars and registries.

Through previous Operational Plans and Budgets, ICANN has allocated funds to upgrade L-Root, conduct ccTLD security and stability training, fund Fellowships and increase participation in ICANN from developing countries, support IDNs and standards development, and apply funds toward ICANN's reserve as a contingency. This approach is not new, although the potential amount of funding that may be generated by SC SLDs makes these efforts more effective. It is important for accountability and transparency purposes that the community be involved in decisions on the use of funds from the allocation of single-character names.

Based on the guidance and input ICANN has already received from the community, the distribution of funds from allocation of SC SLDs should provide for the benefit of the global community to promote the long-term security and reliability of the Internet.

The use of funds resulting from the allocation of single-character names should be subject to careful oversight, either by the ICANN Board or by a Board appointed, community-based trustee.

Annex: Background

Single-character domain names are presently reserved in all 16 gTLD registry agreements. The current reservation was implemented in December 1993 by Jon Postel functioning as IANA.

For many years, ICANN has received inquiries from third parties seeking to register single-character domain names, has advised these parties that the names are reserved, and has informed these parties that the reservation can be removed through a bottom-up process.

At the direction of the GNSO Council, from 16 October to 15 December 2007, ICANN initiated a forum to solicit community input on potential allocation methods for single-letter and single-digit domain names at the second-level.[11] The forum was a result of the GNSO Council and GNSO Reserved Names Working Group (RNWG), which recommended that

> "…single letters and digits be released at the second level in future gTLDs, and that those currently reserved in existing gTLDs should be released. This release should be contingent upon the use of appropriate allocation frameworks. More work may be needed. In future gTLDs we recommend that single letters and single digits be available at the second (and third level if applicable)."

The GNSO Reserved Names WG (RN WG) completed its final report in May 2007 (see http://gnso.icann.org/issues/new-gtlds/final-report-rn-wg-23may07.pdf). The RNWG considered the technical implications of releasing single-letter and single-digit domain names from reservation, and engaged in discussions with technical experts as the working group recommendations were developed. The technical experts that participated in the RNWG assured that the release of SC SLDs would not harm security or stability of the DNS.

[11] The public comment forum on single-letter and single-digit domain names is located at http://www.icann.org/announcements/announcement-16oct07.htm). The 34 comments received were summarized on 23 December 2007 (see http://forum.icann.org/lists/allocationmethods/msg00037.html).

The results of the final report were discussed by the GNSO Council during the ICANN meeting in San Juan, Puerto Rico (June 2007), and Council noted that staff would conduct "further work" on single-character names at the second-level as well as ICANN/IANA names at the second level on the schedule of reserved names.

On 4 September 2007, ICANN staff provided the GNSO Council with Staff Implementation Notes on the GNSO RN WG recommendations (see http://gnso.icann.org/drafts/icann-implementation-doc-gnso-rswg-04sep07.pdf).

ICANN is following its bottom-up, multi-stakeholder model to develop a suitable allocation mechanism for the release of single-letter and single-digit domain names as recommended by the GNSO working group. ICANN recognizes that a one-size-fits-all approach may not work for all registries, and that there may be variations proposed by certain gTLDs.

On 27 February 2008, ICANN published a document titled Synthesis on Single-Character Domain Names at the Second-Level (see http://gnso.icann.org/drafts/icann-synthesis-on-sldns-27feb08.pdf). The Synthesis document described potential allocation methods of single-character names as a result of the comment forum conducted from 16 October to 15 December 2007. 34 comments were received during the forum, representing a diverse range of views from individuals, companies, trade associations, organizations, registrars and the gTLD Registry Constituency.

ICANN recognizes that there is substantial community interest for the allocation of single-character names in existing gTLDs, including substantial interest from a number of gTLD registry operators and sponsors.

ICANN has recently received requests via the Registry Services Evaluation Process[12] from two sponsored TLD registries to release single-character names from their schedule of reserved names[13], and expects to receive additional requests in the future. This will require Board consideration. ICANN will consider these requests on a case-by-case basis, depending on whether the registry is sponsored or unsponsored, the size of the registry, and method proposed by the registry. New registry services are governed by the GNSO Policy, which was put into the contractual provisions of the registry agreements. The contractual provisions in ICANN's gTLD registry agreements govern how SC SLDs are managed. ICANN cannot unilaterally change the registry agreements and the schedule of reserved names. Further, there is no policy that states that registries must release SC SLDs.

ICANN's synthesis document noted the comments guiding the process emphasized that:

- Allocation should be market-based,
- Domain holders should pay fair market value for single-character second-level domain names, and
- Revenue resulting from allocation should go to benefit the DNS for the public good.

The ICANN Board received an update on single-character names during the 29 May 2008 Board call (see Preliminary Report of the Board at http://www.icann.org/minutes/prelim-report-29may08.htm). The GNSO Council was also provided with an update by ICANN staff on 29 May 2008. During the Council call, ICANN staff noted that this proposed Allocation Framework would be published for community consideration.

[12] Registry Services Evaluation Process, see http://www.icann.org/registries/rsep/.
[13] DotCoop proposal #2008005, see http://www.icann.org/registries/rsep/coop-request-29may08.pdf; DotMobi proposal #2008006, see http://www.icann.org/registries/rsep/mobi-proposal-29may08.pdf.

Once an allocation mechanism is developed, endorsed by the community, and implemented, it is expected to result in substantial interest. There are issues that remain to be resolved on how such an allocation mechanism could be implemented with participation from interested registries.