



NEW gTLDs – IMPACT ON ccTLDs

SUMMARY: On June 20th 2011¹ ICANN, the global coordinator of Internet names and numbers, decided to create new generic Top Level Domains (gTLDs). Small scale additions to the namespace have been made since 2000. In contrast, ICANN now decided to authorise any new gTLD which meets the published criteria.² ICANN estimates that between 200-300 new gTLDs will be created in the first year of the programme³. An expansion of the namespace on this scale has not been experienced. The application window for the first round closes on May 30th. At the time of writing, 2350 users had registered in the TLD application system.⁴

This paper considers the reasons for expansion of the namespace, the costs and benefits. It gives an overview of the gTLD application process, reviews lessons learned from previous expansions of the namespace, and early experiences of non-Latin character sets (IDN TLDs). It then examines the implications of expansion, both through the creation of “new gTLD service industries”, and whether the quality of service criteria set out in the Application Guidebook will change expectations of ccTLD service delivery.

Jargon Buster

ccTLD	country code Top Level Domain, eg .de, .es, .fr, .uk
CENTR	The Council for European National Top Level Domain Registries, the European regional ccTLD organisation www.centr.org
gTLD	generic Top Level Domain, eg .com, .net, .org, for which the ICANN community sets policy.
ICANN	The Internet Corporation for Assigned Names and Numbers. ICANN is the global coordinator of the domain name system www.icann.org , including policy for gTLDs
IDN	Internationalised Domain Name, a non-Latin character string, eg .中国 (“China”), or .РФ (“Russian Federation”), transliterated into ASCII (the limited character set needed for domain name resolution) by means of the Unicode standard.
Registrant	A domain name holder/owner, who registers a domain name for its commercial or other purposes. For example, Facebook Inc is the registrant of the domain name facebook.com.
Registrar	An Internet service provider (eg Go Daddy!, Tucows) which enables registrants to register domain names in one or more TLDs. ICANN Accredited Registrars are licensed to provide registrar services for gTLDs. Registrars typically also provide other services, such as hosting, e-mail forwarding, and technical support.
Registry	The authoritative repository for a Top Level Domain. The registry holds and maintains the database relating to that Top Level Domain. Examples of registries include VeriSign (.com), Public Interest Registry (.org), DENIC (.de), Nominet (.uk), and Red.es (.es).

BACKGROUND.01

Domain names are the Internet’s address system. They convert the numbers that identify each computer attached to the Internet (IP addresses) into names, which are easier for human beings to recall. Internet users rely on domain names for navigation of the Internet. Companies and other institutions increasingly use domain names as an intrinsic part of their advertising messages.

In the early days of the Internet, gTLDs were administered by a research institute on behalf of the US Department of Defense. In 1998, the US Government transferred coordination of the domain name system to a private sector organisation, ICANN. At the time of its creation, it was foreseen that one of ICANN’s tasks would be to introduce competition into the domain name system, including by creating new gTLDs.

Since its inception, ICANN has undertaken two expansions of the namespace. The first was in 2000, a proof of concept for the expansion of the namespace in a “measured and responsible manner”.⁵ Seven gTLDs were created (.biz, .info, .name, .pro, .aero, .coop and .museum). In 2004, seven more gTLDs were created (.asia, .cat, .jobs, .mobi, .post, .tel and .travel)⁶.

Those in favour of expansion of the domain name space saw its benefits as increasing consumer choice, competition, encouraging innovation and meeting previously unmet needs. Those against cited costs as potential instability/insecurity of the domain name system, consumer confusion, difficulties in protecting trade mark holders against cybersquatting or other abusive practices, and the potential harm caused by registry failure.

¹ <http://singapore41.icann.org/meetings/singapore2011/transcript-board-new-gtlds-20jun11-en.txt>

² <http://www.icann.org/en/topics/new-gtlds/rfp-clean-30may11-en.pdf> accessed 22 May 2012

³ <http://www.icann.org/en/topics/new-gtlds/delegation-rate-scenarios-new-gtlds-06oct10-en.pdf>, accessed 22 May 2012

⁴ <http://www.icann.org/en/news/announcements/announcement-29mar12-en.htm> last accessed 22 May 2012

⁵ ICANN, Report on TLD Applications: Background (9 November 2000), <http://www.icann.org/en/tlds/report/report-i-09nov00.htm>, accessed 22 May 2012

⁶ ICANN, Information page for Sponsored Top-Level Domains <http://www.icann.org/en/tlds/stld-apps-19mar04/> last accessed 22 May 2012

THE- gTLD-PROCESS.02

In 2008, ICANN announced its intention to introduce new gTLDs. Following extensive consultation and process revisions, the ICANN Board decided to set the launch date for the application process for 12 January 2012. The application window closes on May 30th, 2012. In June, 2012 the applied for names will be made public.

As with previous gTLD-rounds, applications will be independently evaluated. However, unlike the “proof of concept” rounds, where the intention was only to create a small number of gTLDs, ICANN has confirmed that any application which meets the criteria will be approved, and therefore a much greater expansion of the namespace is envisioned than previously. However, since the first announcements, it has become clear that more names will be applied for than ICANN will be able to process simultaneously. As a result, ICANN has developed a batching process that will decide on which names will be processed first. The batching system will be based on the secondary timestamp.⁷

Applications are being submitted through online forms. Background checks will be undertaken on the suitability of the applicants. Unsuitable qualities, including criminal convictions, and a track-record of cybersquatting, will result in rejection of an application.

Applications will be subject to public comment and a formal objection process.

All applications will be subject to “initial evaluations”. Three elements focus on the proposed TLD string: checking to avoid conflicts with existing TLDs, certain reserved strings, and creating “contention sets” of identical or similar applications; DNS stability; and Geographic Names.

Geographic Names is a category of particular interest to CENTR members, and other ccTLD operators. Although gTLD application process prohibits applications for country or territory names, applications will be allowed for sub-national place names and geographic regions, provided that sufficient governmental support is provided.

For the first time, it will be possible for applicants to apply for non-Latin character gTLDs (Internationalised Domain Names, or IDNs), and the Applicant Guidebook provides extensive provisions relating to IDN applications. An example which illustrates the potential complexity of IDNs, in the context of a geographic names comparison, the kanji .中国 “chuugoku”, a region of Japan, is similar in appearance, but different in meaning, to the Chinese character .中国 “zhongguo” meaning “China”⁸ (recently approved in the IDN ccTLD fast-track).

The other aspect of the initial evaluation is a review of the applicant’s technical and operational capability, financial capability and a review of its registry services to ensure that they will not adversely impact security and stability. Extensive guidance for applicants and evaluators is set out, including instructions on the 50 question application form⁹.

In the event that an application fails an element of the initial evaluation, an extended evaluation may be requested in certain circumstances, on payment of additional fees.

The new gTLD process also contains dispute resolution mechanisms, to resolve string similarity (eg two competing applications for the same term), alleged infringement of legal rights, or where the string is contrary to “generally accepted legal norms of morality and public order”, or substantial opposition from a community that the proposed gTLD is intended to benefit. Persons filing a complaint must show legal standing, and pay a fee.

Additional mechanisms are designed to resolve “string contention”, both direct or indirect, including a process designed to resolve competing applications for similar community-based gTLDs. Situations that cannot be resolved through dialogue between the parties, or dispute resolution mechanisms, will be resolved through an auction.

It is difficult to estimate the costs and timeframes for the new gTLD process. The number of variables within the process means that an application could take numerous potential paths. ICANN estimates that application processing could take 8 months and 19 months¹⁰.

The application fee for a new gTLD will be US \$ 185,000. Additional fees are payable in certain circumstances (eg up to US \$120,000 for an extended evaluation¹¹). Applicants should anticipate other direct costs, eg consultants to assist with the application process, registry back-end provider, legal and financial advice necessary to meet the application criteria.

OUTSTANDING-POLICY-AND-ECONOMIC-ISSUES.03

The creation of new namespace is always controversial, and this process has been no exception. Major issues included the protection of intellectual property rights, vertical integration and the economic impact of gTLD expansion.

The domain name system has always posed challenges for those enforcing intellectual property rights. It is argued that the costs associated with namespace expansion fall disproportionately on famous brand owners, who are prey to cybersquatters.

⁷ <http://www.icann.org/en/groups/board/documents/resolutions-28mar12-en.htm> last accessed 22 May 2012

⁸ Thanks to Chris Dillon of University College London for this example.

⁹ Attachment to module 2, Applicant Guidebook <http://www.icann.org/en/topics/new-gtlds/evaluation-procedures-clean-30may11-en.pdf>, accessed 22 May 2012

¹⁰ ICANN Applicant Guidebook, 1-15 <http://www.icann.org/en/topics/new-gtlds/rfp-clean-30may11-en.pdf>, accessed 22 May 2012

¹¹ Ibid, section 1.5.2

An Implementation Recommendation Team (IRT) produced a report in May 2009, which called for several mechanisms to be established, including a rapid suspension process for obviously abusive registrations, and a mechanism for listing famous trademarks and providing notice to trade mark holders. Through the process of consultation, however, a number of these mechanisms have been substantially watered-down, particularly the “URS” (Uniform Rapid Suspension System). Another controversial issue has been “vertical integration”, ie whether it should be possible for registrars to apply to become registries. Opponents of vertical integration argue that allowing registrar/registries would distort competition, and lead to uneven access for registrars to offer particular TLDs, thus disadvantaging consumers. Advocates of vertical integration argued that registrars have appropriate skill sets and infrastructure to provide registry services, and disbaring registrars from the process would further entrench the market power of incumbent registries – who would be left as the only realistic bidding partners for back-end services. Despite negative advice from the Government Advisory Committee the Board decided to move forward and relax the cross-ownership rules.

The economic impact of namespace expansion remains uncertain. By opening up the namespace to an unlimited number of new gTLDs, ICANN’s actions have potentially game-changing consequences. ICANN commissioned two economic studies during 2010, to examine the likely costs and benefits of namespace expansion.

The studies found that previous expansions had not materially affected .com’s dominance, that switching costs tended to prevent registrants defecting from established TLDs to new TLDs. In terms of net benefits to society (rather than private benefits to TLD operators), the studies found that greatest benefits were likely to derive from differentiated, innovative offerings, rather than head-on competition for .com. Examples could be community-based domains, “.brand” (ie large brand owners like Canon Inc running their own TLD¹²), and non-Latin character gTLDs.

The studies also considered the external enforcement costs for intellectual property. The studies concluded that previous experience of launching gTLDs had produced a range of effective mechanisms to prevent abusive registrations. However, given trademark owners’ obligation to proactively protect their marks, the introduction of new gTLDs was likely to impose associated costs on trademark owners, and that such costs would fall disproportionately on owners of famous brands, for example through typosquatting¹³. The studies concluded that the question of whether the incremental costs would outweigh the benefits “will very likely be uncertain and will vary by application.”¹⁴

LESSONS-LEARNED-FROM-PREVIOUS-EXPANSION.04

For those who think that running a TLD is a licence to print money, the experiences of gTLDs introduced since 2000 suggest otherwise. In the past 10 years, .com’s market share may have declined from approximately 50% in 2001 to 44% in 2010¹⁵, but in real terms .com registrations have nearly quadrupled. In contrast, the domain intended to offer direct competition (.biz) has stayed level at around 2% of market share.¹⁶ The most successful of the new gTLDs, .info, with 8m domains¹⁷ after 10 years of operation, has only just overtaken its original “moderate” projections for 5 years.¹⁸

According to ICANN economic analysis, .mobi’s relevance had declined with advances in device aware web-technologies, and this may have contributed to a low renewal rate (37%)¹⁹. The study warned that “failure to take potential alternatives into account can result in a significant over-estimate of the likely benefits of a gTLD”²⁰. Even for restricted domains, such as .museum, the study found that only 1.4% of eligible registrants (ie museums) had registered in the domain²¹. Similarly, low registration figures in .aero indicate that “airports have not perceived significant benefits from the gTLD”²².

IDN-ccTLD-FAST-TRACK-RESULTS.05

Through a different process, 2010 saw the introduction of IDN ccTLDs, including for Egypt, China, Taiwan and the Russian Federation. Early results from the introduction of .PФ (.rf) indicate significant user demand for IDN TLDs in territories which use non-Latin scripts. Following the introduction of the landrush in November 2010, more than 790,000 .PФ domains had been registered by end of March 2012²³. In December 2010, the second month of landrush, over 85,000 .PФ domains were registered, compared to a monthly average of 47,000 for the non-IDN .ru. The .PФ registry estimates that at least half of the registered Cyrillic domain names are already in use.

IDNs have been available at the second level for 10 years. However, anecdotal evidence is that uptake and renewal rates

12 <http://www.canon.com/news/2010/mar16e.html>, accessed 22 May 2012

13 Katz et al (2010 (2)), page 56 and 74 <http://www.icann.org/en/topics/new-gtlds/phase-two-economic-considerations-03dec10-en.pdf>, accessed 22 May 2012

14 Ibid page 75

15 Source: VeriSign, Domain Industry Brief May 2005, showing 24m .com registrations out total of 50m across all domains in 2001, and Domain Name Industry Brief November 2010, showing 89m .com registrations out of total of 200m across all domains.

16 Ibid

17 http://icannwiki.com/index.php/Domain_Statistics, accessed 22 May 2012

18 Afllias, .info application to ICANN, 2000 http://www.icann.org/en/tlds/info1/Registry_Operator_s_Proposal_Pt1.htm, accessed 4 April 2012, showing projections of 6.2m and 11m registrations at 5 years (moderate and aggressive estimates).

19 Of 802,455 registrations at the end of 2007, only 37% were renewed two years later. “.mobi Monthly Registry Reports to ICANN” <http://www.icann.org/en/resources/registries/reports> last accessed 22 May 2012

20 Katz et al (2010 (2)), page 22.

21 Ibid p 27

22 Ibid p 33

23 <http://stat.nic.ru/>, accessed 22 May 2012

have been limited. There could be a number of reasons for this. The IDN supply chain is still immature. Although most browsers now support IDNs, the technical standard for e-mail IDNs is still in development and is not available to users. Moreover, the user experience has been sub-optimal, eg necessitating changing keyboards midway through typing an IDN domain name. The introduction of IDNs at the top level may provide an incentive to complete the supply chain.

Implications 1: the new gTLD service industry

Whilst it remains unclear whether new gTLDs themselves will be a success, the prospect of namespace expansion has fostered a new gTLD service industry. A number of established ccTLD and gTLD registries are offering their services as registry back-end partners (eg AFNIC and NIC.AT, DNS.BE, VeriSign and Neustar), or in an advisory capacity (eg SIDN). Others are targeting specific market segments, eg Valideus is offering to partner with potential .brand applicants. There will also be opportunities for independent evaluators (who will vet applications), and consultants to assist applicants in navigating the complex application process.

Implications 2: benchmarking quality of service

Many ccTLDs, in evaluating their own quality of service, have struggled to find ready benchmarks. The Applicant Guidebook sets out extensive criteria to describe a good registry's operational, technical and financial abilities, for example:

- Applicants need to demonstrate the process used for development of its IDN tables, including consultations and sources used.
- Community-based applications need to provide a coherent set of their registration policies.
- Applications for geographical names must provide evidence of support or non-objection from relevant governments or public authorities.
- DNSSEC is regarded as a "customary service".
- SRS and EPP are mandated technical services.

Applicants are also expected to include detailed descriptions of their network architecture, offshore nameservers and security policies. The standard expected by ICANN is high, and may in future serve as benchmarks of the standard required for ccTLD registries by key stakeholders eg by governments, regulators or customers.

Implications 3: impact on ccTLD market share?

For ccTLDs, the opening up of the namespace presents both opportunities and threats.

The experiences of gTLDs launched since 2000 show that fundamental business principles apply to new domain space no less than any other sphere. Without an attractive, differentiated, offering which meets a genuine need, supported by a marketing or user education programme, a TLD will not be successful.

A perverse consequence is that the new gTLDs introduced to date have strengthened, not weakened, the market power of .com and leading ccTLDs. ICANN's economic studies found that "the .com domain remains the default domain for the great majority of the brand owners we examined"²⁴ and that users perceive new gTLDs to provide few affirmative benefits²⁵. Hence, an expansion of choice may actually strengthen users' preference for well-known, trusted TLDs.

Moreover, experience shows that because switching costs are high, new TLDs do not lead to mass defections from existing TLDs. For example, the introduction of .eu did not adversely impact the number of .nl registrations in the Netherlands²⁶.

However, in other Internet sectors (eg social networking), brands have emerged almost overnight, and the same could happen with a new TLD. The economic studies concluded that the largest potential benefits are likely to be from innovative business models that are very different to existing TLDs, "community" based TLDs, and non-Latin character set TLDs (IDNs). The importance of registrars in ensuring a TLD's success was not considered by the economic studies. As the marketplace becomes more crowded, the role of registrars as the channel to market (and gatekeepers to which TLDs are offered to their customers) will become more significant. For example, the success of the recent .co launch was in part attributable to the registry's strong registrar base. ccTLDs will be subject to the same market pressures, as pressure intensifies to be included in popular registrars' pick-down lists of TLDs, and will need to ensure that they can rely on key registrars' support.

CONCLUSIONS.07

As ICANN has launched the new gTLD application process, the implications for ccTLDs remain unclear. ccTLD registries need to remain alert and responsive to potentially heightened competitive forces, and consider whether these changes can also bring opportunities, whether as a back-end provider, trusted source of advice or even as an applicant for a new gTLD.

²⁴ Katz et al (2010 (2), p65.

²⁵ Ibid p73.

²⁶ "There is a competitive market throughout the world: new top-level domains such as .eu mean a further increase in competition for .nl. SIDN carried out market research in 2006 into the development of .nl domain names. Relatively speaking, the .nl domain share fell as a result of these new domains, but, in absolute terms, interest in the .nl domain actually grew." SIDN Annual Report, 2006, https://www.sidn.nl/fileadmin/docs/PDF-files_UK/SIDN_Annual_Report_2006.pdf, accessed 22 May 2012.