SUBMISSION TITLE: SSAC Report on Dotless Domains

Background
SSAC calls a domain name that consists of a single label a dotless domain. The new gTLD program could introduce a significant number of new top-level domain names to the DNS. This prospect has generated considerable interest, and sometimes confusion, in how top-level names can be used. A frequently asked question is: If I register "dot BRAND", will I be able to use the label “BRAND” alone in a URL or an email address (for example, http://brand or mail@brand)? What will happen if I do?

In this report, the SSAC finds that dotless domains would not always work as expected given current DNS implementation and existing application behavior. In particular, we find that the way in which domain names are interpreted in different contexts would lead to unpredictable and unexpected dotless domain behavior. Additionally, this ambiguous behavior could be used to develop methodologies to compromise the session and allow for malicious activities with, for example, DNS redirection.

SSAC is aware that currently some TLDs have dotless domain names. Our initial examination reveals that resolution of these names is not consistent or universal, and in particular, applications behave differently when presented with "dotless" responses.

Based on the analysis above, the SSAC concludes that dotless domains will not be universally reachable, and recommends strongly against their use. SSAC recommends that the use of DNS resource records such as A, AAAA, and MX in the apex of a Top-Level Domain (TLD) be contractually prohibited where appropriate and strongly discouraged in all cases.

The SSAC report is included as Exhibit A to the Annex.

Submitted by: Ram Mohan
Position: SSAC Liaison to the ICANN Board
Date Noted: 06/12/2012
Email and Phone Number Ram Mohan <rmohan@afilias.info>
Preface

This is a Report of the Security and Stability Advisory Committee (SSAC). The SSAC advises the ICANN community and Board on matters relating to the security and integrity of the Internet's naming and address allocation systems. This includes operational matters (e.g., matters pertaining to the correct and reliable operation of the root name system), administrative matters (e.g., matters pertaining to address allocation and Internet number assignment), and registration matters (e.g., matters pertaining to registry and registrar services). SSAC engages in ongoing threat assessment and risk analysis of the Internet naming and address allocation services to assess where the principal threats to stability and security lie, and advises the ICANN community accordingly. The SSAC has no official authority to regulate, enforce or adjudicate. Those functions belong to others, and the advice offered here should be evaluated on its merits.

The contributors to this Report, reference to the committee members’ biographies and statements of interest, and committee members’ objections to the findings or recommendations in this report, are at end of this Report.
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1. Introduction

The new generic top-level domain (gTLD) program could introduce a significant number of new TLD names to the domain name system (DNS).\(^1\) This prospect has generated considerable interest, and sometimes confusion, in how top-level names can be used. A frequently asked question is: \textit{If I register "dot BRAND", will I be able to use the label “BRAND” alone in a URL or an email address? What will happen if I do?} \(^2\)

SSAC calls a domain name that consists of a single label a “dotless domain.” Applicants for new gTLDs who ask the question posed above want to know whether or not a dotless domain would be handled by Internet infrastructure and applications in the same way as other domain names. In this report, the SSAC finds that dotless domains would not always work as expected given current DNS implementation and existing application behavior. In particular, the SSAC finds that the way in which domain names are interpreted in different contexts would lead to unpredictable and unexpected dotless domain behavior.

2. Background

The only completely unambiguous representation of a domain name is a “fully qualified domain name” (FQDN), in which every label is explicitly included, adjacent labels are separated from each other by a “dot” (period or full-stop symbol), and the sequence of labels is terminated at the top level by a final dot, which represents the DNS root.\(^3\) An example of an FQDN is “www.icann.org.”, which consists of a label for each of the three levels of the hierarchical domain name and a terminating “.” to signify that the next level beyond “org” is the root (which is quite literally a “full stop” for DNS names). An FQDN is unambiguous because it contains all of the information necessary to identify the domain it names; no additional information from the context in which it is used is required.

Almost every domain name that users of the DNS actually see, however, is something less than “fully qualified.” The domain name “www.icann.org”, for example, is not an FQDN (it lacks the terminating “.”). Whenever an application (such as a Web browser) is given a string that should be a domain name (based on the context in which it is seen) but is not an FQDN, it must make one or more assumptions about “what the user intended.” For example, a Web browser might allow users to enter partial or incomplete domain names in the Web address field and “fill in” the missing pieces, perhaps adding a “www” prefix or a “.com” suffix; the DNS servers within a company might be configured with a “search path” to assume that partial or incomplete addresses should be “auto-completed”

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with “CompanyName.com”. These assumptions may be made differently by different applications or in different contexts, which means that they may or may not correspond to what the user intended.

3. Dotless Domains in Applications

If every application insisted that domain names always be fully qualified—or even fully qualified except for the terminating “.”—domain name entries would always be unambiguous, and there would be little if any variability or unpredictability in how they were interpreted either by different applications or in different contexts. This, however, is not how applications work today. All of the most commonly used Internet applications accept a variety of shorthand, abbreviated, and local-context entries in fields that are expected to contain a domain name. Different applications, in different contexts, attempt to construct a semantically complete FQDN from these incomplete entries in different ways, almost all of which will produce unexpected or unpredictable results when applied to an entry that is intended to be a dotless domain.

In this section the SSAC describes four classes of ambiguous behavior, but it emphasizes that the number of potential ambiguities in the handling of dotless domains is limited only by the number of applications that use the syntax of domain names.

3.1 Web Browsers

When a user enters a web address into a Web browser the Web browser will check whether the domain name in the web address is complete or valid. One common algorithm checks whether the domain has two or more labels separated at least by one dot. The dotless domain in this case would not be considered a complete domain, since it is a single label without the dot.

The browser may take the following additional actions to guess the user’s intent:

a) Prefix the domain name in the uniform resource locator (URL) (e.g. example in the URL http://example/) with "www", or add a popular domain name suffix such as "com" or "co.uk" before querying the DNS. Thus the actual domain name used in the DNS query would be www.example.com or www.example.co.uk.

b) If search path is configured (see 3.3), appends the dotless domain with the search path and do the name lookup.

c) Passes the domain name (“example” in this case) to a search engine. The result of the search is displayed.

d) Queries the DNS directly for the dotless domain.
Depending on operating system, browser and user configuration, users may encounter any of the scenarios, or combinations of the scenarios above. Other than case d above, there is no guarantee that users would be able to visit the dotless domain queried.

### 3.2 LAN Configurations

While the Internet uses the Transmission Control Protocol/Internet Protocol (TCP/IP) suite, computers and devices connected to local area networks (LANs) commonly use protocols other than TCP/IP to locate services or to share files and printer services, e.g. Server Message Block (SMB)/Common Internet File System (CIFS), Network Basic Input/Output System (NetBIOS), Network File System (NFS). These protocol suites use name spaces other than the domain name space and use name resolution services other than the DNS, e.g. Windows Internet Name Service (WINS). Another example is multicast DNS that uses the TCP/IP protocol suite but adds “.local” as a top level domain before a DNS query is issued.

A dotless domain is essentially a single name or label, that is, a string of characters. Without the context that the FQDN representation offers, a device connected to a LAN may not always query the DNS "first". Other mechanisms might have precedence. Moreover, the string "BRAND" may already be used in LANs for different purposes than to access services connected to the public Internet. Thus in this case the dotless domain would not be resolved to the correct location. Finally, operating systems do not search these available name spaces in a standard order; users could therefore get different results in different contexts.

### 3.3 DNS Stub Resolvers

Even if end user applications (e.g. browsers) did not rewrite domain name entries to “fill in the missing pieces,” it is not guaranteed that different DNS stub resolvers would always return the same result. This is caused by what is known as the "search path" option.

For DNS stub resolvers where a search path is configured, the search path is added to a query for a dotless domain and if that fails the search path is removed and the query is retried. To illustrate, with a search path of "example.com" asking for "dotless" will cause the stub resolver to try first for "dotless.example.com" and only if the query gets a non-existent domain (NXDOMAIN) response, the stub resolver would try “dotless” directly. The exact behavior of a look-up depends on how this option is configured for the stub resolver in use, thus the behavior could vary from resolver to resolver.

Today it is common to have such a search path configured. Specifically, in enterprise environments internal documents often include URLs that take for granted such a search

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path is in use. For example, the URL to the email server web interface might be 
http://email/ instead of http://email.example.com/ because it is “known” that the search 
path example.com is in use within that enterprise.

The issues described above are some of those associated with a dotless domain name that 
no longer uniquely addresses or identifies a service. The URL http://brand/ could be used 
to address either the service with that specific URL with the dotless domain name brand, 
or the service with the URL http://brand.example.com/, if the search path example.com is 
pre-configured.

3.4 Electronic Mail

One serious and prevalent concern is that dotless domains would not work with protocols 
that specify additional rules of what constitutes a legal domain. The most prominent 
example is the Simple Mail Transfer Protocol (SMTP) to deliver electronic mail.\(^5\) It 
requires at least two labels in the FQDN of a mail address. Thus standard-compliant mail 
servers would reject emails to addresses such as user@brand.

4. Dotless Domains and Security

The SSAC notes that in the domain name system if a zone contains only resource record 
types that have to do with the structure of the DNS itself (for example, if the zone does not contain A records), then the zone is said to be Delegation Only. Today, many TLDs 
are delegation only, and some security arguments exist where it is recommended to have 
TLDs be delegation only, although there are also known issues with drawing such 
conclusions about a TLD. Because of that, if an A record is added to a TLD, which is 
what is needed for http://brand/ to work, it might be that policies prohibit lookup for the 
single label.

Other security issues may arise if dotless domains are permitted to host content directly. 
The advent of such hosting will violate a longstanding (more than 20 year) assumption 
that a dotless hostname is within an organization's trust sphere. In Windows, for instance, 
this means that a dotless host may be considered to be in the Intranet zone, and is 
accorded the security privileges conveyed to sites in that zone. These privileges are 
significant and may, depending on the user's configuration, permit code execution.

It should be further noted that many other trust authorities have made similar 
asumptions. For example, until very recently most Certificate Authorities would issue a 
Hypertext Transfer Protocol Secure (HTTPS) certificate for any dotless hostname with no 
validation (under the assumption that such hostnames, by definition, were not globally 
reachable). If dotless domains are allowed, these historical Certificate Authority Issuance 
practices pose a significant security risk to the privacy and integrity of HTTPS 
communications.

Last but not least, many organizations' proxy auto configuration scripts include the line:

```java
if(isPlainHostName(host)) return "DIRECT";
```

This is intended to ensure that Intranet requests are not sent to the proxy. If a brand were to attempt "dotless" hosting, a user's proxy configuration script would indicate that a proxy is not needed, and the request to the Internet server would typically subsequently fail because the organization's firewall requires all Internet-bound requests to go through the proxy. Thus should dotless hosting be allowed, the use of isPlainHostname() in proxy auto configuration scripts poses a serious problem for the ability for traffic to be routed.

5. Conclusions and Recommendations

The SSAC concludes that the combined effect of these potential ambiguities makes it very difficult in practice to predict how a dotless domain name will be resolved in different situations. The result could be anything from fully expected behavior to a security incident in which the user of a domain name (or URL with the domain name embedded) communicates unknowingly with a party other than intended; or, as in the email example in Section 3.4 above, a failure of the system to provide any service at all. Additionally, this ambiguous behavior could be used to develop methodologies to compromise the session and allow for malicious activities with, for example, DNS redirection.

The SSAC is aware that there currently exist TLDs that attempt to resolve dotless domain names. Our initial examination reveals that resolution of these names is not consistent or universal, and in particular, applications behave differently when presented with "dotless" responses. These behaviors occur for reasons illustrated in this paper.

**Recommendation:** Dotless domains will not be universally reachable and the SSAC recommends strongly against their use. As a result, the SSAC also recommends that the use of DNS resource records such as A, AAAA, and MX in the apex of a Top-Level Domain (TLD) be contractually prohibited where appropriate and strongly discouraged in all cases.
6. Acknowledgments, Statements of Interests, and Objections and Withdrawals

In the interest of greater transparency, these sections provide the reader information on three aspects of our process. The Acknowledgments section lists the members who contributed to this particular document. The Statements of Interest section points to the biographies of the Committee members and any conflicts of interest, real, apparent or potential, that may bear on the material in this document. The Objections and Withdrawals section provides a place for individual members to disagree with the content of this document or the process for preparing it.

6.1 Acknowledgments

The committee wishes to thank the following SSAC members, external experts, and staff for their time, contributions, and review in producing this Report.

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Bruce Tonkin
Paul Vixie
Rick Wesson
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During the production of this report, the SSAC reached out to a broader community to get explicit feedback on how today’s software and services behave when given a dotless domain as input. For their time and contributions during this outreach process, the SSAC wants to specifically thank the following persons:

Ian Fette (Google)
Eric Lawrence (Microsoft)
Sid Stamm (Mozilla)

6.2 Statements of Interest


6.3 Objections and Withdrawals

There were no objections or withdrawals.

7. References


2012-06-23-1.11-Annex-GNSO Improvements Program Wrap-Up
ANNEX TO BOARD SUBMISSION 2012-06-23-1.11

SUBMISSION TITLE: GNSO Improvements Program Wrap-Up/June 2012

I. BACKGROUND

This ANNEX seeks to document and memorialize the major accomplishments of the GNSO Improvements Program from its inception in early 2008 through June 2012.

To refresh Board members, the Program has its origins in a February 2008 Board Governance Committee (BGC) Report on GNSO Improvements, which outlined five target areas as shown in the accompanying graphic.

Community preparation and planning activities began in May 2008 and the program moved substantially forward at the Mexico City ICANN meeting (March 2009) at which time five community work teams under the auspices of two GNSO Council Steering Committees were officially inaugurated. More than 100 community volunteers and Staff members have been actively involved in pursuit of the program’s goals since its inception.

The GNSO is now approaching the fourth year of this implementation effort. At this juncture, with the program having substantially developed the structures, policies, procedures, and disciplines designed to achieve long-term improvement in all five areas, Staff recommends that the Board formally acknowledge the accomplishments of the Program and thank the community for its work efforts. To this end, a proposed Resolution is presented in the accompanying Board paper.

For each of the five target areas, Staff has highlighted below (Section II) the most significant accomplishments and milestones of this Program since its inception. While there are a few tasks remaining (Section III below), Staff believes that, to the extent they remain unfinished as of 30 June 2012, they be managed to fruition as part of an ongoing effort to continuously monitor and improve GNSO operations under the auspices of the GNSO’s Standing Committee on Improvement Implementation (SCI).
II. ACCOMPLISHMENTS

The GNSO Improvements Program has been a truly substantial undertaking and its implementation of a plethora of major improvements to GNSO structures, operations, and processes is a testament to the capacity inherent in the multi-stakeholder model.

1. Restructure the GNSO/Council

   Major accomplishments and milestones:
   - Board approved revised Article X (GNSO) Bylaws (September 2009)
   - Stakeholder Groups/Constituencies (SG/C)
     - Board approved four new Stakeholder Groups (28 August 2009)
     - Board approved permanent Charters for Registries and Registrars Stakeholder Groups (30 July 2009)
     - Board approved permanent Charters for Non-Commercial and Commercial Stakeholder Groups (24 June 2011)
     - Board recognized the Not-for-Profit Operational Concerns (NPOC) Constituency in the Non-Commercial Stakeholder Group (June 2011). [Note: the first new Constituency approval since the GNSO was established.]
     - Board approved a new Process for Recognition of New GNSO Constituencies (24 June 2011)
   - GNSO/Council
     - Bicameral Council established with two voting Houses (Seoul, October 2009)
     - Substantially enhanced GNSO Operating Procedures (currently v2.4) including new voting remedies (proxy/abstentions), statements of interest, SG/Constituency operating principles and participation guidelines, Working Group guidelines (Annex 1), and a Policy Development Process manual (Annex 2). This enriched set of procedures was predominantly developed and managed by the GNSO Council Operations Work Team (GCOT) under the auspices of the Operations Steering Committee (OSC).
     - Approved the Charter for a new Standing Committee on Improvement Implementation (SCI) to review and assess the ongoing functioning of recommendations accepted by the two Steering Committees and the Council (7 April 2011).

2. Revise the Policy Development Process

   Major accomplishments and milestones:
   - Board adopted revised Annex A and the new GNSO Policy Development Process (8 December 2011) containing 48 improvement recommendations crafted over the course of two years by the Policy Development Process Work Team (PDP-WT). A Policy Development Process Model has also been developed which documents the following major improvements:
3. **Adopt a New Working Group Model**

Major accomplishments and milestones:

- GNSO Council approved a new set of Working Group Guidelines (March 2011):
  - Developed by the Working Group Model Work Team (WG-WT) over the course of two years and approved by the Policy Process Steering Committee (PPSC), the new guidelines feature a thorough review of every aspect of the Working Group process from its first meeting through and including the final outputs of the group.
  - The new guidelines are incorporated within the GNSO Operating Procedures as Annex 1. At the Council's direction, Staff prepared a Summary of the new guidelines that is available for all current and future Working Group volunteers.

4. **Enhance and Support GNSO Stakeholder Groups and Constituencies**

Major accomplishments and milestones:

- GNSO Council approved “Stakeholder Group/Constituency Operating Principles and Participation Guidelines.” Developed by the Constituency and Stakeholder Group Operations Work Team (CSG-WT) over two years, the recommendations were approved by the Operations Steering Committee (OSC) and incorporated into the GNSO Operating Procedures as Chapter 7 by resolution of the GNSO Council (5 August 2010).

- **Global Outreach:** The Constituency and Stakeholder Group Operations Work Team (CSG-WT), together with its Operations Steering Committee (OSC), has made significant progress in developing recommendations concerning outreach:
  - The CSG-WT developed a set of Recommendations to Develop a Global Outreach Program to Broaden Participation in the GNSO (21 January 2011) containing a recommendation that the Council “manage the development of the
OTF (Outreach Task Force) through the creation of a Drafting Team to develop the OTF’s Charter.”
  o The OTF-DT was formed and it provided to the GNSO Council a Draft Charter on 18 October 2011.
  o For further information on this initiative, see Section 6 below.

- **“Toolkit” of GNSO Services:**
  
  o Utilizing the results of a GNSO Constituency Survey conducted by Staff in October 2008, the Constituency and Stakeholder Group Operations Work Team (CSG-WT) analyzed the results, conducted a follow-up survey, and recommended a prioritized list of eleven (11) services in its final report (25 October 2009).
  
  o The Operations Steering Committee (OSC) forwarded the recommendations to the GNSO Council (4 December 2009), which approved them by Resolution (17 December 2009) directing Staff to develop costs, funding, specifications, requirements, and procedures as well as notify the GNSO Communities of the “Toolkit” and the process for requesting services.
    - Seven (7) of the eleven (11) services are currently being provided to the GNSO community.
    - One service, #7-Provide Grants/Funding Directly to Constituencies, has been deferred.
    - Three (3) services are in varying states of analysis, development, and implementation (see Section 6 below).

5. **Improve Communications and Coordination with ICANN Structures**

Major accomplishments and milestones:

- The Communications and Coordination Work Team (CCT) submitted its Final Consolidated Report to the Operations Steering Committee (OSC) and was approved by the GNSO Council (23 June 2010, Brussels), after a Public Comment period (23 April 2010 – 16 May 2010). The Council directed Staff to begin implementation focusing on the CCT’s three major recommendations:
  
  o Developing new GNSO website requirements including document management and collaboration tools;
  o Improving the GNSO’s ability to solicit meaningful feedback; and
  o Improving the GNSO’s coordination with other ICANN structures.

- Website Design and Development:
  
  o During September-October 2009, utilizing the CCT’s foundational work, members of the ICANN Policy Staff and the CCT sub-team developed a framework/layout for a new GNSO website and conducted several presentations during the Seoul ICANN meeting to show various GNSO groups the “wireframes” and obtain feedback.
  o Two Requests for Proposals were published (February, April 2010) culminating in a contract award and delivery of a re-themed site in September 2010.
Extensive content development ensued in the intervening period and the new GNSO site became operational effective 24 May 2012:

- Major improvements include: complete site reorganization and content presentation; implementation of taxonomy and extensive document tagging; conversion to database for improved efficiencies; new browse (library) and search capability; modern theming/navigation; and a focus on new user education (podcasts, webinars).

### III. REMAINING TASKS & ACTIVITIES

As documented above, all five disciplines achieved substantial forward progress over the past four years and, in most instances, the efforts of the Work Teams and Steering Committees culminated in specific and demonstrable operational, process, and/or structural improvements.

As would be expected with any extensive project containing this much variety and complexity, some of the tasks were completed within the first few months while others required the entire four year period. In a few instances, as noted below, while important outcomes have been produced, there are remaining elements that will take additional time and effort to nurture to fruition. Staff believes that it, along with the GNSO’s Standing Committee on Improvement Implementation (SCI), can manage these activities to successful conclusions.

- **Global Outreach**
  As outlined above in Section 4, the GNSO Council received the recommendation of the Outreach Task Force Drafting Team (OTF-DT) and, in the ensuing discussions, a set of broader issues were raised concerning budgetary impacts and overall goals/objectives. As a result, certain facets of the recommendation are still being actively discussed within the GNSO. These efforts may be coordinate with a broader community outreach coordination effort beginning in Prague.

- **Training and Development Curriculum**
  The BGC recommendations valued the development of a training and development curriculum to promote skills development for the Council, prospective chairs of working groups and, ideally, all members of the ICANN community who might wish to take part in working groups. In conjunction with the improvement of the GNSO web site, the staff has developed a series of written materials for reference by community members to inform new council and community members about these important areas. After community review, these materials will be posted on the GNSO web site for convenient access and reference.

- **Toolkit of GNSO Services:**
  Of the eleven (11) services identified in the “Toolkit,” three are in varying states of analysis and development:

  - **#6-Website Hosting and Content Maintenance**
    A project has been initiated and a prototype developed that will offer GNSO Stakeholder Groups and Constituencies the opportunity to have web presences hosted within ICANN’s Confluence Wiki environment.
o #8-Organizational Record-Keeping
o #9-Maintaining Member Contact Information
  ▪ Services #6, #8 and #9 are being treated together by Staff because of similarities and overlap with the web presence effort. Staff will be working with the community over the next few months to estimate the level of demand and to more fully develop the specific set of deliverables desired in order to evaluate costs, funding, and staffing impacts.

Staff notes that in 2013, the process for a new independent review of the GNSO will likely begin. Staff expects that the tremendous learning experience from the past review will make the next review process, and its ultimate implementation, even more informative, targeted and effective.

IV. LINKS

- Board Governance Committee Report on GNSO Improvements (February 2008)
- GNSO Improvements area within the GNSO website including a Dashboard containing status, timeline, and Board actions.

Submitted by: David Olive, Robert Hoggarth
Position: VP-Policy Development; Senior Policy Director
Date Noted: June 13, 2012
Email and Phone Number Policy-Staff@icann.org
Article III, Section 3.1

**d. Sponsor Operations.**

i. **Registration Restrictions.**
   a. Sponsor shall be responsible for establishing policies, in conformity with the Charter contained in Part I of Appendix S, for the naming conventions within the Sponsored TLD and for requirements of registration, consistent with Section 3.1(g).
   
   b. Sponsor shall be responsible for establishing procedures for the enforcement of applicable restrictions on registration within the Sponsored TLD, as described in more detail in the Charter contained in Part I of Appendix S. Procedures for challenges to names registered contrary to the requirements of the Charter shall conform to the requirements set forth in Appendix S. Furthermore, Sponsor shall be responsible for defining and establishing other relevant registration requirements and appropriate governance mechanisms for the Sponsored TLD, including but not limited to, as the case may be, mechanisms related to the enforcement and implementation of comprehensive Sponsor policies for the Sponsored TLD Community in order to ensure compliance with this Agreement and the Sponsor’s commitments hereunder.
   
   c. Unless otherwise authorized under the terms of the Agreement and without prejudice to any additional registration restrictions defined by the Sponsor in accordance with the Appendices to this Agreement, Sponsor shall reserve, and not allow Registry Operator to register any TLD strings (i) appearing on the list of reserved TLD strings attached as Appendix 6 hereto or (ii) located at http://data.iana.org/TLD/tlds-alpha-by-domain.txt for initial (i.e., other than renewal) registration at the second level within the TLD without the express consent of the relevant governments.

ii. **Functional and Performance Specifications.** Functional and Performance Specifications for operation of the Sponsored TLD shall be as set forth in Appendix 7 hereto, and shall address without limitation minimum requirements for DNS services; operation of the shared registration system; and nameserver operations. Sponsor shall ensure that Registry Operator keeps technical and operational records sufficient to evidence compliance with such specifications for at least one year, which records ICANN may audit from time to time upon reasonable advance written notice, provided that such audits shall not exceed one per quarter. Any such audit shall be at ICANN's cost.

iii. **Use of ICANN-Accredited Registrars.** Sponsor shall ensure that all Sponsor Services offered by Registry Operator are provided through ICANN-accredited registrars, unless otherwise specified in Part VII of Appendix S.

iv. **Sponsor Services.** Sponsor Services are, for purposes of this Agreement, defined as the following: (a) those services that are operations of Sponsor (or, upon instruction of Sponsor, of the Registry Operator) critical to the following tasks: the receipt of data from registrars concerning registrations of domain names and name servers; provision to registrars of status information relating to the zone servers for the Sponsored TLD; dissemination of Sponsored TLD zone files; operation of the Sponsor zone servers; and dissemination of contact and other information concerning domain name server registrations in the Sponsored TLD as required by this Agreement; (b) other products or services that the Sponsor is required to provide because of the establishment of a Consensus Policy (as defined in Section 3.1(b) above); (c) any other products or services that only Sponsor is capable of providing by reason of its designation as the Sponsor; and (d) material changes to any Sponsor Service within the scope of (a), (b) or (c) above.

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Section 7.1 Sponsor–Registrar Agreement.
a. **Access to Sponsor Services.** Sponsor shall make access, or ensure that Registry Operator makes access to Sponsor Services, including the shared registration system, available to ICANN-accredited registrars. The criteria for the selection of Registrars shall be set forth in Appendix S, Part V. Following execution of the Sponsor-Registrar Agreement, provided registrars are in compliance with such agreement, operational access to Sponsor Services shall be granted to ICANN-accredited registrars, including the shared registration system for the TLD. Such nondiscriminatory access shall include without limitation the following:
   i. All registrars connect to the shared registration system gateway for the TLD via the Internet by utilizing the same maximum number of IP addresses and SSL certificate authentication;
   ii. Registry Operator has, upon instruction of Sponsor, made the current version of the registrar toolkit software accessible to all registrars and has made any updates available to all registrars on the same schedule;
   iii. All registrars have the same level of access to customer support personnel via telephone, e-mail and Registry Operator’s and Sponsor’s website;
   iv. All registrars have the same level of access to Registry Operator and Sponsor resources to resolve disputes relating to Sponsor Services and other technical and/or administrative customer service issues;
   v. All registrars have the same level of access to data generated by Registry Operator to reconcile their registration activities from Registry Operator's web and ftp servers;
   vi. All registrars may perform basic automated registrar account management functions using the same registrar tool made available to all registrars by Registry Operator upon instruction of the Sponsor; and
   vii. The shared registration system does not include, for purposes of providing discriminatory access, any algorithms or protocols that differentiate among registrars with respect to functionality, including database access, system priorities and overall performance.

b. **Revisions.** Agreements entered into with ICANN-accredited registrars may be revised by Sponsor from time to time; however, any such revisions must be approved by ICANN and shall be provided to ICANN sufficiently in advance of implementation in order to allow for ICANN’s review and comment. The approval of such revisions shall not be unreasonably withheld by ICANN.

c. **Sponsor Shall Not Act as its Own Registrar.** Sponsor shall not act as a registrar with respect to the Sponsored TLD. This shall not preclude Sponsor from registering names within the Sponsored TLD to itself through a request made to an ICANN-accredited registrar or as otherwise permitted under Part VII of Appendix S.

d. **Restrictions on Acquisition of Ownership or Controlling Interest in Registrar.** Sponsor shall not acquire, directly or indirectly, control of, or a greater than fifteen percent ownership interest in, any ICANN-accredited registrar.
2012-06-23-1.13 POST RSEP Sept 2011
Proposed Service

Name of Proposed Service:

Release and allocation of previously-reserved IANA strings to second- and higher-level .POST sTLD registrations

Technical description of Proposed Service:

Article III, Section 3.1(d)(C) of the .post Sponsored TLD Agreement currently states the following:

Sponsor shall reserve, and not allow Registry Operator to register any TLD strings (i) appearing on the list of reserved TLD strings attached as Appendix 6 hereto or (ii) located at http://data.iana.org/TLD/tlds-alpha-by-domain.txt for initial (i.e., other than renewal) registration at the second level within the TLD without the express consent of the relevant governments.

The .post Sponsored Community is made up of a number of registrant groups. In order to help identify the community of potential registrants, facilitate the location of qualified registrants within the .post domain, ensure the establishment of the .post brand value and guarantee trust and predictability for the domain structure, the UPU .post policy development group (UPU E-Services Group) proposed in the .post Domain Management Policy to utilize 3 (three) IANA domain strings in second- and higher-level .post registrations, namely "gov" for UPU member country governments, "com" for postal commercial entities, "edu" for postal educational institutions and "org" for other postal community-based associations and organizations (without prejudice to the possibility to refer to and use other IANA domain strings as the .post Domain Management Policy evolves over time).

The proposed service requested herein follows recent ICANN developments and recommendations concerning the use of previously-reserved gTLD strings, particularly the Final Report of the Reserved Names Working Group (GNSO New TLDs Committee) of 23 May 2007, as well as the current version of the gTLD Applicant Guidebook (30 May 2011), in which such gTLD string second- or higher-level registration restrictions no longer exist (see section 2.6 of the Draft New gTLD Registry Agreement and its Specification 5 - "Schedule of Reserved Names at the Second Level in gTLD Registries").

In this regard, the aforementioned GNSO reported clearly stated, as the main guiding principles for its recommendation, that 1) "TLD1.TLD2 (e.g., "com.travel") has been identified as not being a risk to the security and stability of the DNS by an expert technical panel (http://www.icann.org/registries/rsep/RSTEP-GNR-proposal-review-team-report.pdf)"; that 2) "evidence has not been presented to justify that user confusion would exist as a result of TLD1.TLD2 with the addition of new gTLDs"; and that 3) "there is market evidence to indicate that TLD1.TLD2 has not resulted in user confusion."

Consequently, the UPU hereby requests that the current restriction pertaining to registration of previously-reserved IANA
domain strings at the second level within the TLD be removed from the .post Sponsored TLD Agreement, in order to allow for fulfillment of the aforementioned objectives as defined by the UPU .post Domain Management Policy (see the extract attached - "post domain naming conventions and restrictions").

Appendix A (DotPost domain naming conventions and restrictions September 2011.pdf)

Consultation

Please describe with specificity your consultations with the community, experts and or others. What were the quantity, nature and content of the consultations?:

See the considerations below.

a. If the registry is a sponsored TLD, what were the nature and content of these consultations with the sponsored TLD community?:

The .post policy development process is overseen by the UPU Postal Operations Council and the UPU Council of Administration. Both of these bodies, made up of UPU member countries and representatives of the postal sector, have deliberated over the last 18 months to define the .post Domain Management Policy. Consultations within the .post Sponsored Community took place with UPU member country governments, regulators, postal operators and representatives of the private sector via the UPU Consultative Committee.

b. Were consultations with gTLD registrars or the registrar constituency appropriate? Which registrars were consulted? What were the nature and content of the consultation?:

The UPU did not consider that any feedback for this proposed Registry Service from gTLD registrars would be necessary, considering that the .POST sTLD is as yet not registered in IANA's root servers; therefore, as of this moment there are no .POST domain names available for registration or being processed by registrars.

c. Were consultations with other constituency groups appropriate? Which groups were consulted? What were the
nature and content of these consultations?:

The UPU did not consider that consultations with other constituency groups would be necessary.

d. Were consultations with end users appropriate? Which groups were consulted? What were the nature and content of these consultations?:

Considering that .POST end users shall be those entities strictly defined as part of the sponsored community (no individual, physical persons are a part thereof), the results of such consultations is summarized above.

e. Who would endorse the introduction of this service? What were the nature and content of these consultations?:

This proposal has already been endorsed by representatives from the sponsored community. Moreover, based on the universally supportive feedback received from governments, designated operators and the postal sector in general (through the UPU's Consultative Committee); on the fact that the aforementioned restrictions are no longer applied or supported by the wider ICANN community (including the recently-approved new gTLD process); and on the assessment that they would not impact registry or registrar operations under the .POST sTLD, the UPU does not anticipate any objections to the introduction of this service.

f. Who would object the introduction of this service? What were(or would be) the nature and content of these consultations?:

Based on the universally supportive feedback received from governments, designated operators and the postal sector in general (through the UPU's Consultative Committee), on the fact that the aforementioned restrictions are no longer applied or supported by the wider ICANN community (including the recently-approved new gTLD process); and on the assessment that they would not impact registry or registrar operations under the .POST sTLD, the UPU does not anticipate any objections to the introduction of this service.
Timeline

Please describe the timeline for implementation of the proposed new registry service:

This registry service is expected to be included with the launch of the .post sTLD, in accordance with the relevant provisions contained in Appendix S of the .post Sponsored TLD Agreement.

Business Description

Describe how the Proposed Service will be offered:

The proposed service will be offered during phase 2 (registrations for the .post domain) as described in the revised .post Start-Up Plan to be communicated to ICANN by the UPU, in accordance with the relevant provisions contained in Appendix S of the .post Sponsored TLD Agreement. At this time, the .post sTLD will start accepting third-level registrations for "gov.2-letter code.post", "[requested string].com.post", "[requested string].org.post" and "[requested string].edu.post", based upon the eligibility criteria for each of the concerned registrant groups within the .post sponsored community.

Describe quality assurance plan or testing of Proposed Service:

The UPU shall, through its Registry Operator, undertake all necessary testing activities before implementing the Proposed Service alongside the launch of the .POST sTLD.

Please list any relevant RFCs or White Papers on the proposed service and explain how those papers are relevant:

Not applicable.
Contractual Provisions

List the relevant contractual provisions impacted by the Proposed Service:

*The main provision impacted by the proposed amendment is Article III, Section 3.1(d)(C) of the .POST Sponsored TLD Agreement (see "Contract Amendments").*

What effect, if any, will the Proposed Service have on the reporting of data to ICANN:

*None.*

What effect, if any, will the Proposed Service have on the Whois?:

*None.*

Contract Amendments

Please describe or provide the necessary contractual amendments for the proposed service:

ICANN and the UPU agree that the following modification is made to the following provision contained in the .POST Sponsorship Agreement:

*Article III, Section 3.1(d)(C) of the .POST Sponsored TLD Agreement*

[Old Text]

*Sponsor shall reserve, and not allow Registry Operator to register any TLD strings (i) appearing on the list of reserved TLD strings attached as Appendix 6 hereto or (ii) located at http://data.iana.org/TLD/tlds-alpha-by-domain.txt for initial (i.e., other than renewal) registration at the second level within the TLD without the express consent of the relevant governments.*

[New Text]
Benefits of Service

Describe the benefits of the Proposed Service:

The proposed service will allow for proper differentiation and segmentation of entities within the .post Sponsored Community, thereby enhancing predictability and trust in the .POST domain space. The proposed service should also minimize or remove confusion amongst Internet users by better enabling the identification and location of .POST community resources. The establishment of a specific hierarchy and naming convention for the proposed registrant groups should, in this regard, create additional opportunities for new registrants, and better meet their needs in terms of increased visibility within the .POST community. Moreover, the proposed service will allow the relevant registrant groups to be defined as entities with common and well-defined needs and interests which are clearly distinguishable from those of the other registrant groups outlined in the .POST Sponsored Community.

Competition

Do you believe your proposed new Registry Service would have any positive or negative effects on competition? If so, please explain.:

The proposed service should enhance competition as it creates opportunities for new registrants to be attracted to and be clearly recognized as a distinct part of the .POST Sponsored Community.

How would you define the markets in which your proposed Registry Service would compete?:

Unless otherwise authorized under the terms of the Agreement and without prejudice to any additional registration restrictions defined by the Sponsor in accordance with the Appendices to this Agreement, Sponsor shall reserve, and not allow Registry Operator to register, any TLD strings appearing on the list of reserved TLD strings attached as Appendix 6 hereto.
The UPU’s proposed Registry Service may compete with other TLDs internationally, but in any case it remains uniquely focused on the .POST sponsored community as defined in the .POST Charter and the .POST Domain Management Policy.

What companies/entities provide services or products that are similar in substance or effect to your proposed Registry Service?:

The proposed Registry Service is similar in nature to many of the ccTLDs who already use gTLD strings to add value to the structure of the DNS. It should be noted that other sTLDs such as .aero use this segmentation approach as well.

In view of your status as a registry operator, would the introduction of your proposed Registry Service potentially impair the ability of other companies/entities that provide similar products or services to compete?:

No. The .post registry specifically serves the needs of the .POST Sponsored Community, and there are no other companies that provide similar products or services to those proposed by the .POST registry.

Do you propose to work with a vendor or contractor to provide the proposed Registry Service? If so, what is the name of the vendor/contractor, and describe the nature of the services the vendor/contractor would provide.: 

The proposed service shall be provided in accordance with the Start-Up Plan defined for the .POST sTLD, through the technical partners already referred to in the .POST sTLD agreement, in particular the Registry Operator. Without prejudice to the possibilities defined in the relevant UPU procurement and financial regulations, no additional vendors or contractors are anticipated for provision of the proposed service.

Have you communicated with any of the entities whose products or services might be affected by the introduction of your proposed Registry Service? If so, please describe the communications.:
Not applicable.

Do you have any documents that address the possible effects on competition of your proposed Registry Service? If so, please submit them with your application. (ICANN will keep the documents confidential).

No.

Security and Stability

Does the proposed service alter the storage and input of Registry Data?:

No, the proposed service would not alter the storage and input of Registry Data, especially considering that the .POST sTLD is still under implementation (i.e., not yet operational). Therefore, no changes in server configurations, registry operations and systems or registrars are anticipated.

Please explain how the proposed service will affect the throughput, response time, consistency or coherence of responses to Internet servers or end systems:

The UPU anticipates no impacts on the throughput, response time, consistency or coherence of responses to Internet servers or end systems.

Have technical concerns been raised about the proposed service, and if so, how do you intend to address those concerns?:

The UPU is not aware of any technical concerns about the proposed service.

Other Issues

Are there any Intellectual Property considerations raised by the Proposed Service:
The UPU believes that the resolution of any intellectual property concerns or issues that might be raised by the Proposed Service are already properly addressed through established policies and mechanisms such as the UDRP.

Does the proposed service contain intellectual property exclusive to your gTLD registry?:

No.

List Disclaimers provided to potential customers regarding the Proposed Service:

There are no disclaimers to be provided.

Any other relevant information to include with this request:

None.
### .post domain naming conventions and restrictions

<table>
<thead>
<tr>
<th>Registrant group</th>
<th>Domain type</th>
<th>Spelling convention</th>
<th>Naming examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 The UPU and its permanent bodies</td>
<td>Second-level domain</td>
<td>.post</td>
<td>upu.post, poc.post</td>
</tr>
<tr>
<td>2 UPU member countries</td>
<td>Third-level domain</td>
<td>&lt;2-letter code&gt;.post or gov.&lt;2-letter code&gt;.post</td>
<td>ministryofpostalaffairs.ch.post, prc.us.post, gov.it.post</td>
</tr>
<tr>
<td>3 DOs</td>
<td>Second- or third-level domain</td>
<td>.post or &lt;2-letter code&gt;.post.com.post</td>
<td>swisspost.post, swisspost.ch.post, swisspost.com.post</td>
</tr>
<tr>
<td>4 Restricted Unions</td>
<td>Second-level domain</td>
<td>.post</td>
<td>restrictedunion.post, appu.post</td>
</tr>
</tbody>
</table>

**Other postal sector members, as authorized by the Sponsor**

<table>
<thead>
<tr>
<th>Registrant group</th>
<th>Domain type</th>
<th>Spelling convention</th>
<th>Naming examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 Postal operators other than DOs</td>
<td>Third-level domain</td>
<td>com.post</td>
<td>companyname.com.post</td>
</tr>
<tr>
<td>6 through 9 Entities supporting the provision of postal services (comprising communications, logistics, payment, suppliers and technology entities)</td>
<td>Third-level domain</td>
<td>edu.post</td>
<td>institutionname.edu.post</td>
</tr>
<tr>
<td>10 Postal educational entities</td>
<td>Third-level domain</td>
<td>org.post</td>
<td>communityname.org.post</td>
</tr>
</tbody>
</table>
Board Meeting: 2012 .com Registry Agreement Renewal

Part I. Current Environment & Recent Developments

On 30 November 2012, the current .com Registry Agreement (signed on 1 March 2006) will expire.

In December 2011, Verisign contacted ICANN regarding the expiration of .com agreement. Since then there were a number of meetings and email exchanges between both parties regarding the renewal.

On 27 March 2012, ICANN published for public comment Verisign’s proposed agreement for the renewal of .com registry agreement. The Board signaled that publication should be as a Verisign proposal, not as a Verisign-ICANN agreed position. It included many provisions developed through discussions between ICANN and Verisign.

On 17 May 2012, the public comment and reply period closed. There were a total of 40 comments received from 34 different commenters. The summary and analysis report can be found at <http://forum.icann.org/lists/com-renewal/msg00046.html>.

On 31 May 2012, the Board held an informational call on .com renewal and a series of questions were raised. Part IV of this paper summarizes the discussion points.

Under the terms of the current agreement Verisign is entitled to renewal, and the current agreement in some ways restricts ICANN’s ability to make changes upon renewal. Most of the proposed amendments seek to bring the .com agreement into line with the other recently executed agreements, improve stability and security provisions, and include modernized provisions and specifications.

Part II. Changes to .com Agreement Included in the Proposal

Below is a brief summary of the material changes proposed to be made in connection with the renewal of the agreement:

1. Changes to Modernize the 2006 Agreement

   1.1. Functional and Performance Specifications revised to:

   1.1.1. Require support for IPv6: registry operator will accept IPv6 addresses as glue where applicable, and will offer IPv6 access to the Shared Registration System (e.g., EPP), Whois, and DNS servers.
1.1.2. **Require removal of orphan glue records in connection with malicious conduct**: consistent with advice from ICANN's Security and Stability Advisory Committee, registry operator will remove a orphan glue records so they cannot be used to support malicious conduct.

1.1.3. **Require support for DNSSEC**: registry operator will implement Domain Name System Security Extensions (DNSSEC) to sign its TLD zone files and accept public-key material from child domain names in a secure manner; providing the ability to authenticate the data published in the DNS.

1.1.4. **Require publication of registry abuse contact information**: registry operator will provide its accurate contact details including a valid email and mailing address as well as a primary contact for handling inquiries related to malicious conduct in the TLD.

1.1.5. **Require the parties to periodically negotiate in good faith regarding implementation of new escrow, Whois and technical specifications**: registry operator and ICANN agree to engage in good faith negotiations, at least once every eighteen months, regarding possible implementation of new RFCs related to Data Escrow, Whois, and other Technical and Functional Specifications.

1.1.6. **Require compliance with IDNA and IDN guidelines**: registry operator will comply with the latest technical standards regarding Internationalized Domain Names, follow the ICANN IDN implementation guidelines, and publish its IDN tables with IANA.

1.1.7. **Allow ICANN to use multiple monitoring locations for DNS and to monitor TCP queries**: allows ICANN to implement a new Service Level Agreement monitoring system (also to be used for new gTLDs) to monitor DNS service from registry operator.

1.2. **Whois**: added a provision (in Appendix 5) requiring adoption of a replacement of the WHOIS protocol, if and when it is standardized in the IETF. It is expected that this new protocol will support internationalized domain names and data, standardized query, response, and error handling, etc.

1.3. **Monthly Reports Specification**: revised monthly report format (Appendix 4) to include more data.

1.4. **Audit**: added provision giving ICANN broad contractual audit rights to facilitate contractual compliance efforts.

2. **Changes to Align with Other Large Registry Agreements**
2.1. **Service-Level Agreement**: enhance performance specification, comparable to the performance specifications required in the .net registry agreement.

2.2. **Threats to Security and Stability**: added new provision that would allow the registry operator to temporarily prevent the registration of one or more names in the TLD in order to respond to an imminent threat to the security and/or stability of the TLD or the Internet.

2.3. **Use of Traffic Data**: clarified that the use of traffic data would be limited to "thin" registry model data even if registry were to follow the "thick" registry model.

2.4. **Prohibition on Universal Wildcard Functions**: clarification that prohibition on "SiteFinder" or other universal wildcard functions does not prohibit provision of name service or any other non-registry service for a domain or zone used for other than registration services.

2.5. **Indemnification of ICANN**: added broad indemnification rights in favor of ICANN.

3. **Other Changes**

3.1. **Registry Fees**: replaced lump sum quarterly fee with a fee based on $0.25 per transaction in the TLD. This is a substantial increase in Verisign’s contribution.

3.2. **Cooperation with Compliance Actions Against Registrars**: added a provision requiring the registry operator to implement ICANN ordered registrar suspensions to facilitate ICANN’s contractual compliance efforts.

3.3. **Price Caps**: no substantive changes to price cap and price increase provision; agreement updated to reflect the current fee cap of $7.85.

**Part III. Public Comment Summary and Analysis**

During public comment there were nine main topics discussed as follows:

1. **Rights Protection Mechanisms**

   The .com renewal proposal does not include a requirement to comply with the rights protection mechanisms (RPMs) developed for new gTLDs: Uniform Rapid Suspension (URS), Post-Delegation Dispute Resolution Process (PDDRP), and the Trademark Clearinghouse. Those RPMs have so far only been approved in the context of new gTLDs.
Some commenters (IACC, INTA Internet Committee, IPC, IPO, and MarkMonitor) requested the inclusion of the new gTLD’s RPMs in the new .com contract. Other commenters (G. Kirikos, ICA, and N. Cohen) argued against such inclusion.

Analysis: URS and PDDRP are new and untested, and arguably require a "ramp-up" period to ensure that they are robustly designed and implemented before they are asked to absorb the full workload of the entire gTLD namespace. Secondly, registrants have procured domain names in existing gTLDs with an understanding of the landscape of existing RPMs. New RPMs affect registrants, as well as registries and registrars. They should be introduced in existing gTLDs after a bottom-up community discussion. When creating the new gTLD rules, existing registrants (and registries) were not consulted with the idea that those protections would be implemented in existing gTLDs without further community discussion.

The Trademark Clearinghouse, as defined in the Applicant Guidebook, works in the period of a registry operational start-up and so would not be applicable to .com.

Finally, these RPMs are not in any other existing registry agreement, and under current requirements ICANN has no basis for including them into existing registry agreements; the renewal agreement should be similar in terms with the other largest registries.

2. Thick Whois

The .com renewal proposal does not include any requirement regarding “Thick Whois”.

Some commenters (ALAC, the Business Constituency, C. Chaplow, IACC, INTA Internet Committee, IPC, IPO, MarkMonitor, and M. Cade) requested either that the new registry agreement should require “Thick Whois” immediately or after a period of time. Other commenters (G. Kirikos, and ICA) argued it should only be required once approved by the GNSO.

Analysis: While the migration to thick Whois in the renewal would bring .com into conformance with the majority of the five largest gTLD registries, the question of transitioning the largest existing registry to “thick” Whois raises operational and other implementation issues that require further community discussion and consideration. This has been recognized by the GNSO, as that body agreed to undertake a formal Policy Development Process in the matter. Once approved, such a change can be implemented separately from the renewal process.

3. Whois Protocol Replacement
INTA Internet Committee commented that the adoption of a replacement Whois protocol, upon approval by ICANN, should be required within a specified time frame with no further exceptions. No one else commented on the subject.

Analysis: Language in the renewal requires Verisign to adopt the new protocol within a time certain if it is commercially reasonable in the context of the overall operation of the registry. The current language is appropriate because it is difficult for a company to agree a new protocol that is not yet fully specified. The current commitment advances the transition to the new protocol. It is also worth noting that Verisign is agreeing to support the standardization effort in the IETF and has already followed through.

4. **Application of Subsequent Policies Ratified by ICANN**

ALAC requested that legal language should be included in the contract to add applicability of subsequent policies ratified by ICANN post-contract date. This would prevent the need in the future to wait for contract renewal to harmonize contracts which are out of sync, both time-wise and contents-wise. No one else commented on the subject.

Analysis: VeriSign (like all other gTLD registries and registrars) is already obligated to comply with Consensus Policies that are developed and recommended by the GNSO and approved by the ICANN Board (subject to restrictions in existing registry agreements).

5. **Equivalent Registry Contracts**

R. Andruff suggested that ICANN should strive over time to eliminate all differences between registry agreements so that transparency and equivalent contracts become the ICANN standard. No one else commented on the subject.

Analysis: ICANN agrees with R. Andruff about the benefits that eliminating differences between registry agreements would bring and is pursuing that goal in the long term. Also, it should be noted that ICANN is constrained by the terms of the current agreements.

6. **Chief Compliance Officer**

IPC requested that all gTLD registry contracts should include the requirement for the registry to appoint a chief compliance officer who will be accountable for compliance with contractual obligations to ICANN. No one else commented on the subject.

Analysis: ICANN agrees with IPC that a registry's compliance with its contractual obligations is important, however we believe that how it achieves this is an internal management issue for the registry operator rather than ICANN mandate a new requirement for a dedicated officer. New compliance tools are included in the
agreement such as cooperation in actions against registrars who are in breach, and specific monitoring by ICANN to ensure Verisign meets SLAs.

7. **Single-Character Registrations**

Some commenters (R. Andruff, M. Cade, J. Johnson, and MarkMonitor) recommended that the new agreement allow the registration of single-character names at the second level. In opposition, G. Kirikos argued that the interests of registrants of 100 million domain names should take priority over, at most, 33 registrants.

Analysis: ICANN regards single-character registrations as a new registry service and as such subject to the Registry Services Evaluation Process (RSEP). It would be up to the registry operator (independent of the renewal process) to request such a change through the RSEP.

8. **Presumptive Renewal and Pricing Provisions**

A number of commenters (A. Allemann, C. Dalton, C. Morningstar, D. Pryor, DomainCocoon, G. Kirikos, G. Ricks, ICA, J. Hureaux, K. Dabney, K. Irmiter, K. Pitts, K. Richardson, MarkMonitor, M. Berkens, M. Demirci, N. Cohen, and N. Pauli) commented against the presumptive renewal and pricing provisions of the current agreement, which are being carried out into the renewal proposal. Main arguments stated in the public comment forum are:

- The presumptive renewal clause was a mistake and must be eliminated in all registry contracts.
- The presumptive renewal is costing consumers hundreds of millions of dollars in excess fees annually.
- ICANN’s approval of the settlement agreement [referring to the 2006 settlement between Verisign and ICANN] with VeriSign is a clear example of “regulatory capture.”
- There is a conflict of interest since ICANN will be receiving $6-12 million a year more under the terms of the proposal.
- Why are the .com domain prices going up over time when the trend in the technology area is for prices to decrease over time?
- There are registries that charge less than 1/3 the price of [.com].
- There should be a way to split operation of the .com registry so that VeriSign did not have control of it and competitors would have access (e.g. could split the
“resolution of names” from the domain registration aspect of a registry, just as is done with the root zone).

- The larger .com transaction volume should make .com costs lower (especially given much lower registration prices for .net for which VeriSign operates a similar registry infrastructure).

- VeriSign is using the money it makes from .com to subsidize its new lines of business. VeriSign should be focused on running and promoting .com instead of putting its windfall profits into programs that hedge against .com domain names.

- The proposed price increases seem exorbitant since no new substantive offerings are being added to the contract; however, MarkMonitor would support the price increases should VeriSign comply with the new gTLD requirements.

- A requirement should be imposed on VeriSign and all other gTLD registry operators to provide a public explanation of the justification for any future price increases.

- There should be an economic study to determine the base cost of providing registry services or to address the issue of whether a large registry such as .com enjoys economies of scale that make its per domain operating costs lower than average.

- Since there will be no market testing of .com pricing through a contract rebid process, it is all the more important that the new gTLD program is managed to maximize the probability that one or more new general purpose generic TLDs brings outside pricing pressure to bear on .com and other incumbent registries.

Analysis: The current agreement (Section 4.2) specifies that the pricing and renewal provisions (among others) are not subject to change through the agreement renewal process.

Both the current .com registry agreement and the proposed renewal agreement permit Verisign to increase the price it charges registrars for domain names registrations four times during the six-year term with each increase being no greater than 7%. This provision was negotiated between Verisign and the U.S. Department of Justice in the existing agreement. Other large gTLDs (.biz, .info, .net, and .org) allow price increases of by 10% per year in each of the six years of the agreement. Besides the contractual restriction that limits our ability to change this clause, ICANN believe the best path is to leave the original agreement between the USG and Verisign intact.
ICANN’s registry agreement for new gTLDs and registry agreements for sponsored gTLDs (.aero, .asia, .cat, .coop, .jobs, .mobi, .museum, .post, .pro, .tel, .travel, and .xxx) do not include any price controls.

9. Competitive Contract Bidding

A number of commenters (A. Elliott, A. Strong, B. Baughman, B. Gilbert, D. Pryor, DomainCocoon, G. Kirikos, G. Ricks, J. Matthews, K. Dabney, K. Irmiter, K. Pitts, M. Berkens, M. Jeltovic, N. Cohen, and N. Pauli) commented about the presumptive renewal provisions of the current agreement, which are being carried out into the renewal proposal. Main arguments stated in the public comment forum are:

- The .com contract should go out for competitive bidding; otherwise it is unfair and not free enterprise.
- The DOJ should step in and break the anticompetitive deal between ICANN and VeriSign.
- Having no competitive bidding process for .com puts global stakeholders at an extreme disadvantage to U.S.-based ones. A competitive bid would at the very least bring out international or multinational players who would perhaps table alternative governance structures and legal procedures that were fairer to all global stakeholders.
- The VeriSign contract should not be renewed; it is anticompetitive, does not serve the public interest and does not reflect the global Internet.

Analysis: The current registry agreement precludes a competitive bidding process to provide .com registry services. The renewal provisions in the current .com Registry Agreement are consistent with all the other ICANN gTLD agreements. All ICANN’s gTLD registry agreements essentially provide that they will be renewed absent a serious breach of the agreement. These renewal provisions are based on stability and security concerns, i.e., to encourage long-term investment in robust TLD operations. This has benefitted the community in the form of reliable operation of the registry infrastructure. ICANN does not have the right under the current .com Registry Agreement to unilaterally refuse to renew the agreement or to bifurcate registry functions.
Part IV. Questions and Answers Discussed During the 31 May 2012 Board Call

On 31 May 2012, the Board held an informational call on .com renewal and a few questions were raised. The following is a summary of the discussion points.

Timing for Renewal

1. What is the timeline for renewal (e.g., could the process be finalized by the Toronto meeting in October 2012)?

   Verisign wishes to execute a renewal in advance to the expiration date because their cooperative agreement with the U.S. Government also expires in November 2012, and Verisign has told us that the renewal of the .com agreement is a prerequisite to the execution of a new cooperative agreement. We are working to meet that request and therefore we are aiming to finalize the renewal process by or shortly after the Prague meeting.

Thick Whois

2. What would be the timeline of the Thick Whois PDP?

   The GNSO Council has already initiated the PDP, however the PDP has been delayed until the first GNSO Council meeting after 30 November 2012 (the expiration of the current .com agreement). See http://gnso.icann.org/en/resolutions/#201204

   From data provided by Marika Konings to the GNSO council on 24 May 2012, the absolute minimum duration of a PDP is estimated at 8.5 months. The average duration of a PDP is estimated at 20 months.

3. Is it possible to insert a provision in .com renewal agreement stating that Thick Whois will be incorporated pending the result of the PDP?

   The current .com registry agreement already obligates Verisign to comply with Consensus Policies that are developed and recommended by the GNSO and approved by the ICANN Board (subject to restrictions in existing registry agreement). Therefore, it is not necessary to include such provision.

   Moreover, including such provision could, at least, be seen as detrimental to the rest of the consensus policies. Calling out a specific consensus policy in the contract can be interpreted as implying that the other policies not called out have a lesser standing. It seems better to have all the consensus policies that would apply to .com to be considered on equal footing.
Additionally, in its comments on the preliminary Thick Whois issues report, Verisign provided written confirmation (http://forum.icann.org/lists/thick-whois-preliminary-report/msg00004.html) that they would abide by the PDP if it were approved. This could be made part of statements around the agreement without having to include a provision.

Rights Protection Mechanisms

4. How could we align .com with the new gTLD RPMs (e.g., URS, PDDRP), noting that the Trademark Clearinghouse is not the matter here for the reasons aforementioned?

In a future where URS has already been in use for some time with a good degree of success, we can anticipate a market demand, which can help with a quick adoption in .com and other existing gTLDs.

On the other hand, PDDRP deployment might entail a policy development process.

Single-Character Registrations

5. Given that single-character registration most likely imply auctions. If the proceeds from those auctions were not for the benefit of Verisign, would that help the case for single-character registrations in .com?

That is something to be considered through the Registry Services Evaluation Process (RSEP). Once Verisign had filed one such request. However, there are more issues to be taken into account. For example, there are various complexities around the negotiations between Verisign and the US Department of Justice on price caps, which likely won’t make auctions a straightforward mechanism in .com.

Pricing Provisions

6. What is the financial benefit ICANN receives from price increases in .com?

ICANN has not and will not receive a financial benefit from Verisign’s price increases. Under the current agreement, Verisign pays an annual fee related to the number of annual registrations with a cap at $18M per year. The renewal agreement is proposing a fixed transaction fee of $0.25, which would have the effect of uncapping Verisign fees while harmonizing them with other existing and new gTLDs. However, neither of those fee provisions is indexed to Verisign’s prices.
Registry Functions Split up

7. Would it be possible to split up the .com registry functions (e.g., having multiple back-end providers for the DNS resolution while a different organization manages the registration) as it is done in the root zone?

If possible, this would be such a big change that there is not enough time to consider it between now and the time of agreement expiration. This change is comparable in magnitude to the separation between registry and registrars in the early days of ICANN.
DETAILED ANALYSIS:

1. **Background:**
   In April 2011, ICANN called for expressions of interest to assist as host of the 2013 Asia Pacific Meeting. The proposal that is recommended for approval, from the China Internet Network Information Center (CNNIC), the Internet Society of China (ISC) and the China Organizational Name Administration Center (CONAC), is discussed below.

2. **Site Visits:**
   Site visits were performed, as follows:
   - January and April 2012 - Beijing, China
   - January 2012 - Macau, China
   - January 2012 - Hyderabad, India
   - September 2010 - Amman, Jordan
   - September 2010 - Bali, Indonesia

3. **Discussion of Issues:**
   Beijing offers an excellent combination of accessibility, meeting facilities and hotel accommodations for the April 2013 ICANN Meeting. The Beijing International Hotel and Convention Center will be used for all meetings, as well as guest room accommodations for Board, staff and most delegates. Nearby hotels are within walking distance and offer excellent accommodations at varying price points.

   Air access to Beijing is excellent, offering direct flights to many international destinations. The airport is approximately 30 minutes from the meeting venue … longer in traffic.

   Representatives from the China Internet Network Information Center (CNNIC), the Internet Society of China (ISC) and the China Organizational Name Administration Center (CONAC) are capable and anxious to host.

   Staff recommends that the board approve Beijing, China as the location of the April 2013 ICANN Meeting.

   A budget of US$2.23M is proposed for the ICANN Meeting in Beijing, China. It includes all expenses for the Meeting, including travel for the ICANN Board, staff, meeting contractors, Fellows, ALAC, GNSO and ccNSO.
2012-06-23-2.3-Update on Asia 2013 ICANN Meeting
2012-06-23-2.4-Annex to Board paper on Whois Review
Team Report
This Annex, reflecting staff’s initial assessment of the feasibility of implementation of the recommendations of the Whois Review Team, has been redacted as the assessments are in very initial form, were not considered by the Board, and may vary from the final feasibility assessments reached after the completion of the work directed by the Board in June 2012. Release of the initial staff assessments at a time when the ICANN community is actively engaged in providing input on the Final Report and Recommendations may impact the focus of that input, and ICANN does not want to interfere with the community consideration of this issue. ICANN is committed to re-evaluating the scope of redaction to this paper and annex after the publication of more robust feasibility assessments and, where applicable, implementation paths.
Prague Background Information
Background Information

The 44th ICANN Public Meeting

Prague, Czech Republic

24-29 June 2012
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Figure 1 - Czech Republic Flag

Figure 2 - Map of the Czech Republic
CZECH REPUBLIC BACKGROUND

At the close of World War I, the Czechs and Slovaks of the former Austro-Hungarian Empire merged to form Czechoslovakia. During the interwar years, having rejected a federal system, the new country's leaders were frequently preoccupied with meeting the demands of other ethnic minorities within the republic, most notably the Sudeten Germans and the Ruthenians (Ukrainians).

On the eve of World War II, the Czech part of the country was forcibly annexed to the Third Reich, and the Slovaks declared independence as an ally of Nazi Germany. After the war, a reunited but truncated Czechoslovakia (less Ruthenia) fell within the Soviet sphere of influence. In 1968, an invasion by Warsaw Pact troops ended the efforts of the country's leaders to liberalize Communist Party rule and create "socialism with a human face." Anti-Soviet demonstrations the following year ushered in a period of harsh repression known as "normalization." With the collapse of Soviet-backed authority in 1989, Czechoslovakia regained its democracy through a peaceful "Velvet Revolution." On 1 January 1993, the country underwent a "velvet divorce" into its two national components, the Czech Republic and Slovakia. The Czech Republic joined NATO in 1999 and the European Union in 2004.

Population:
10,177,300 (July 2012 est.)
84th largest in the world
Population growth rate: -0.13%

Literacy:
99% of those over the age of 15 can read and write
Male: 99%
Female: 99%

Age structure:
0-14 years: 13.5%
15-64 years: 70.2%
65 years and older: 16.3%
Median age:
40.8 years

Country Name:
Conventional long form: Czech Republic
Conventional short form: Czech Republic
Local long form: Ceska Republica
Local short form: Cesko

Time Zone:
Greenwich Mean Time +1 (5 hours ahead of Washington, DC during Daylight Savings Time)

Ethnic groups: Czech (90.4%), Moravian (3.7%), Slovak (1.9%), Other (4%).

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Government
GOVERNMENT

**Government Structure:** Parliamentary democracy

**Chief of State:** President Vaclav KLAUS (since 7 March 2003)

**Head of Government:** Prime Minister Petr NECAS (since 28 June 2010);
First Deputy Prime Minister Karel SCHWARZENBERG (since 13 July 2010), Deputy Prime Minister Karolina PEAKE (since 1 July 2011)

**Current President:**

Vaclav Klaus was born in the Vinohrady district of Prague on June 19, 1941. He spent his childhood and youth in the neighbourhood of Tylovo namesti square.

He obtained his university education at the University of Economics, Prague (majoring in the Foreign Trade Economics and graduating in 1963), and economics thus became his specialist field for his entire life. He took advantage of the relative liberalization in the then Czechoslovakia in order to study in Italy (1966) and the USA (1969). As a research worker at the Institute of Economics of the Czech Academy of Sciences he completed his postgraduate scientific studies and in 1968 was awarded the title of app. PhD. in Economics.

In 1970 he was forced to abandon his research career for political reasons, and left to work at the Czechoslovak State Bank for many years. In 1987 he returned from the bank to his academic work at the Prognostic Institute of the Czech Academy of Sciences at the end of 1987.

Immediately after the events of November 17, 1989 he entered politics, but did not lose contact with the world of economic science. He continued to lecture and publish occasionally, and in 1991 he was engaged as a lecturer at Charles University in the field of economics. In
1995 he was appointed professor for the field of finances at the University of Economics, Prague.

He embarked on his political career in December 1989, when he became Federal Minister of Finance. Later, in October 1991 he was appointed vice chairman of the government of the Czechoslovak Federal Republic. At the end of 1990 he became the chairman of the then strongest political entity - the Civic Forum. Following its demise in April 1991 he co-founded the Civic Democratic Party, of which he was chairman from its inception until December 2002. He won a parliamentary election with this party in June 1992 and became Prime Minister of the Czech Republic. In this role he shared in the "Velvet Divorce" of the Czechoslovak Federation and the foundation of an independent Czech Republic. In 1996 he successfully defended his post as Prime Minister in election to the Chamber of Deputies. Following the collapse of the governing coalition he tendered his resignation in November 1997. Following a forced general election in 1998 he became chairman of the Chamber of Deputies of the Czech parliament for a four-year period.

On February 15, 2008 he was elected to his second term as President of the Czech Republic. From an article in the New York Times that year:

A fervent critic of the environmental movement, he has called global warming a dangerous “myth,” arguing that the fight against climate change threatens economic growth.

Vaclav Klaus is married to the economist Livia Klausova and has two sons and five grandchildren. His son Vaclav is the headmaster of a private grammar school in Prague, and his son Jan works as a financial analyst.

For many years in his youth Vaclav Klaus was top sportsman, playing basketball and volleyball, and also enjoys skiing and playing tennis. In his free time he enjoys reading fiction and listening to music, in particular jazz.
He has published over 20 books on general social, political and economic themes, and has been awarded a number of international prizes and honorary doctorates from universities all over the world.\(^2\)

**Economy**

The Czech Republic is a stable and prosperous market economy, which harmonized its laws and regulations with those of the EU prior to its EU accession in 2004. While the conservative, inward-looking Czech financial system has remained relatively healthy, the small, open, export-driven Czech economy remains sensitive to changes in the economic performance of its main export markets, especially Germany. When Western Europe and Germany fell into recession in late 2008, demand for Czech goods plunged, leading to double digit drops in industrial production and exports. As a result, real GDP fell 4.7\% in 2009, with most of the decline occurring during the first quarter. Real GDP, however, has slowly recovered with positive quarter-on-quarter growth starting in the second half of 2009 and continuing throughout 2011.

The auto industry remains the largest single industry, and, together with its upstream suppliers, accounts for nearly 24\% of Czech manufacturing. The Czech Republic produced more than a million cars for the first time in 2010, over 80\% of which were exported. Foreign and domestic businesses alike voice concerns about corruption especially in public procurement.

Other long term challenges include dealing with a rapidly aging population, funding an unsustainable pension and health care system, and diversifying away from manufacturing and toward a more high-tech, services-based, knowledge economy.

**GDP (purchasing power parity):** US $272.22 billion (2011 est.)
Country comparison to the world: 46

**GDP (real growth rate):** 1.8\% (2011 est.)
Country comparison to the world: 162

**GDP (per capita):** $25,900 (2011 est.)
Country comparison to the world: 52

**Unemployment rate:** 8.5% (2011 estimate)
Country comparison to the world: 101

**Labor Force – by occupation:**
Agriculture: 3.1%
Industry: 38.6%
Services: 58.3% (2009 estimate)

**Agriculture products:** wheat, potatoes, sugar beets, hops, fruit; pigs, poultry

**Industries:** motor vehicles, metallurgy, machinery and equipment, glass, armaments
Internet in the Czech Republic
INTERNET IN THE CZECH REPUBLIC

The Internet country code for the Czech Republic is .cz, and it is administered by CZ.NIC Association.

Internet Usage Czech Republic

Population: 10,177,300 (July 2012 est.)
Internet Users: 7,220,732 (Dec 2011)
Penetration (% Population): 70.9%
Facebook Users: 3,653,260 as of March 2012 (35.9% penetration rate)

Source: www.internetworldstats.com

Internet Usage Europe

Population: 816,426,346 (11.8% of the world)
Internet Users: 500,723,686 (2% of world users)
Penetration (% population): 61.3%

Source: www.internetworldstats.com

General Communication Information Czech Republic

Internet Hosts: 4.14 million (2011)
Telephones – main lines in use: 2.198 million (2010); 55th in the world
Telephones – mobile cellular: 14.331 million (2010); 53rd in the world

General Assessment: privatization and modernization of the Czech telecommunication system got a late start but is advancing steadily; virtually all exchanges now digital; existing copper subscriber systems enhanced with Asymmetric Digital Subscriber Line (ADSL) equipment to accommodate Internet and other digital signals; trunk systems include fiber-optic cable and microwave radio relay

Domestic: access to the fixed-line telephone network expanded throughout the 1990s but the number of fixed line connections has been dropping since then; mobile telephone usage increased sharply beginning in the mid-1990s and the number of cellular telephone subscriptions now greatly exceeds the population

International Country Code: 420

Source: CIA World Factbook
Meeting Host
MEETING HOST

CZ.NIC / CZ.NIC Association

CZ.NIC, z. s. p. o., is an interest association of legal entities, founded in 1998 by leading providers of Internet services. The association currently has 103 members.

Administrative Contact:

Ondřej Filip
CEO, CZ.NIC

Ondřej studied Computer Science at the Faculty of Mathematics and Physics at Charles University and University of Pittsburgh - Joseph M. Katz Graduate School of Business (MBA). During his studies at Charles University he started to work in company IPEX a.s. Later he became Technical director and member of board there. Ondřej has been CEO of the CZ.NIC association since December 2004. Herewith his duties in CZ.NIC Ondřej acts in boards of the association NIX.CZ (Neutral Internet Exchange), associations Euro-IX (European Internet Exchange Association) and DNS OARC (The Domain Name System Operations Analysis and Research Center). He is a member of Multistakeholder Advisory Group, which assists the Secretary General of United Nations in convening the Internet Governance Forum. He was a member of ccNSO council (Country Code Names Supporting Organization) at ICANN (Internet Corporation for Assigned Names and Numbers). In his free time Ondřej likes playing basketball, travelling or programming of open source software. He speaks English fluently and German.
Technical Contact:

**Martin Peterka**  
*Operations Manager*

Martin Peterka is Assistant Managing Director of the CZ.NIC association. Martin studied Automated Control Systems at the Faculty of Mechanical Engineering - Technical University in Kosice. After his studies he worked in VSŽ Informatika, developing a production control information system. During 1999-2003, he managed the CZ domain administration project in KPNQwest Czechia, the company that secured the CZ domain operation for the CZ.NIC association. Martin has been working for the CZ.NIC association since 2003 and is responsible for every-day flawless operation of the CZ domain names registry, supervises work of customer support operators and helps to solve serious problems of the domain holders, is the association’s contact person for domain registrars, and he also participates in further development of the registration system, especially in taking requests of registrars and domain holders into account. Martin spends his time off by bicycling, skiing, and cooking. He is fluent in English.
Czech Republic Media Profile
CZECH REPUBLIC MEDIA PROFILE

From the BBC News Czech Republic Country Profile:

Private radio and TV stations provide stiff competition for their public rivals.

Public broadcaster Ceska Televize (CT) operates two TV networks and a 24-hour news channel. Public radio, Cesky Rozhlas (CRo), operates three national networks as well as local services.

Two major private TV channels broadcast nationally and there are scores of private radio stations. BBC World Service is available on FM in many cities and towns. The country is pressing ahead with the digitization of TV broadcasting; there are plans to switch off analogue signals by 2012.

Press freedom is protected by a charter of basic rights. However, Czech and foreign media organizations criticized an amendment to the penal code in 2009 that made it an offence for journalists to make public the contents of police wiretaps.

Newspapers

- Lidove Noviny - Prague-based national daily, former dissident publication
- Mlada Fronta Dnes - Prague-based national daily
- Pravo - Prague-based national daily
- Blesk - Prague-based tabloid daily
- The Prague Post - English-language

Television

- Czech TV - public, operates mainstream channel CT1 and cultural channel CT2
- CT 24 - public TV news channel
- TV Nova - private
- Prima - private

Radio

- Czech Radio - public broadcaster; operates national and regional networks
- Radio Prague - Czech Radio's external service; programmes in a number of languages including English
- Frekvence 1 - private, national
- Radio Impuls - private, national
- Evropa 2 - private, national
Czech Republic Communications News
News Story Redacted Due to Unclear Right to Re-Publish on ICANN.org
News Story Redacted Due to Unclear Right to Re-Publish on ICANN.org
News Story Redacted Due to Unclear Right to Re-Publish on ICANN.org
News Story Redacted Due to Unclear Right to Re-Publish on ICANN.org
Czech Republic News Headlines
News Story Redacted Due to Unclear Right to Re-Publish on ICANN.org
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