

Name Collision Mitigation Update

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Webinar Information

US Toll-free: 1-877-941-2059 **US Toll:** 1-480-629-9654 **International Numbers:** Download at <http://newgtlds.icann.org/webinars>
Conference ID: Name Collision Update Webinar (46-72-925)

- + Q&A session after the presentation
 - Questions submitted to ICANN prior to the webinar given priority
 - Phone questions
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Agenda

- + New gTLD Collision Occurrence Management Plan Francisco Arias
- + Communications Outreach Nicole Davenport
- + Name Collision Occurrence Mitigation Framework – draft proposal Jeff Schmidt – JAS
- + Name Collision Mitigation Interactions Francisco Arias
- + Q&A

New gTLD Collision Occurrence Management Plan

- On 7 October 2013 the ICANN Board New gTLD Program Committee adopted the New gTLD Collision Occurrence Management Plan
- The Plan includes:
 1. Deferring delegating *home* and *corp* indefinitely
 - 2. Commissioning a study to develop a Name Collision Occurrence Management Framework**
 3. Each new gTLD to receive a Collision Occurrence Assessment based on the Framework
 4. Alternate Path to Delegation for eligible strings
 5. Outreach Campaign

Name Collision

Education and Outreach

- + Developed Name Collision Information kit
- + Plans to launch public mailing list (nc-info@icann.org) to coordinate outreach efforts with community members willing to help
 - <https://mm.icann.org/mailman/listinfo/nc-info>
- + Outreach Status
 - 37 news articles published in 13 countries, covering 6 different languages
 - Made contact with 105+ IT industry associations across Africa, Asia Pacific, Europe, Middle East, Latin America, North America

Get Involved

- + Information hub:
 - <http://www.icann.org/namecollision>
- + Public Comment Period
 - Draft Name Collision Occurrence Management Framework

Mitigating the Risk of DNS Namespace Collisions



Jeff Schmidt
JAS

Scope

- Initial Evaluation “DNS Stability String Review” focused on a string’s potential impact on the global DNS
- JAS research performed from the perspective of end-systems as “consumers” of the global DNS
- JAS found no evidence to suggest that the security and stability of the global Internet DNS itself is at risk



Risk Assessment Objectives

- The frequency of possible collisions has received substantial attention; JAS primary objective is to advance discussion of the possible consequences from the theoretical to the concrete
- Not all potential for collision results in collision
- Not all collisions are problematic
- Not all problematic collisions are equal
- Evaluate mitigation options



Definition

- Interisle: *Name collision occurs when name resolution takes place in a semantic domain other than the one that was expected by a user.*
- SAC062: *The term “name collision” refers to the situation in which a name that is properly defined in one operational domain or naming scope may appear in another domain (in which it is also syntactically valid), where users, software, or other functions in that domain may misinterpret it as if it correctly belonged there.*



Summary Findings

- DNS namespace collisions occur routinely throughout the entire DNS namespace
- Collisions have occurred prior to delegation of every TLD since (at least) 2007

| TLD | Registration Date | # SLDs in theoretical block list |
|-----------------|-------------------|----------------------------------|
| .post | 2012-08-07 | > 50,000 |
| .xxx | 2011-04-15 | > 40,000 |
| .me | 2007-09-24 | > 10,000 |
| .cw | 2010-12-20 | > 10,000 |
| .asia | 2007-05-02 | > 5,000 |
| .sx | 2010-12-20 | > 5,000 |
| .rs | 2007-09-24 | > 5,000 |
| .tel | 2007-03-01 | > 1,000 |
| .xn--mgb3a4f16a | 2013-09-13 | > 100 |



Summary Findings

- Collisions have been mentioned in research as early as 2003
- The two previous new TLD pilot rounds yielded no serious collision-related issues
- Failure modalities seem similar in all parts of the DNS namespace
- Namespace expansion does not fundamentally or significantly increase or change the risks



Why is this happening?

- Lack of appreciation/understanding of DNS
- DNS search list processing
- Intentional use of a namespace that is not under the control of the using party
- Retirement/expiration of hostnames/2LD registrations
- Colliding DNS namespaces are often purchased
 - squatting, investing, domaining, drop-catching...



Lessons from other namespaces

- Other (important) namespaces have collisions
- Other (important) namespaces have changed
- Use notification/transition periods
 - Advance notification
 - Temporary grace/NACK period highly desirable
- 30-90 days typical
- There will be resistance to change
- In the end people and systems will adapt



JAS Recommendations ⁽¹⁾

- The TLDs .corp, .home and .mail should be permanently reserved
- “Controlled Interruption” zone (127.0.53.53) immediately upon delegation and extending for 120 days
 - Non-delegated: implement following delegation using wildcard
 - Delegated/APD: implement using DNS Resource Records (RR) for SDL Block List strings



JAS Recommendations (2)

- ICANN to monitor implementation
- ICANN to maintain emergency response capability to act upon reported problems that present “clear and present danger to human life”
- Don’t de-delegate at root level; use EBERO for surgical edits if required
- Several recommendations around improved data collection and archival at the root zone



Name Collision Mitigation Interactions

Name Collision Mitigation Interactions

- Activation of Domain Names under the new gTLD
 - Currently not allowed during 120-days from contracting
 - Would not be allowed during 120-days from delegation
 - Only exception to the rule: **nic.<tld>** and under
- Registration/Allocation of Domain Names under the new gTLD
 - Allowed from delegation, subject to RPM and other requirements (e.g., see above)
- Sunrise and Claims periods
 - Registered/Allocated names are subject to the normal Sunrise and Claims period, depending on the period in which they are allocated

Name Collision Mitigation Interactions

- The 100 names for promotion of the TLD
 - Yes, but cannot be activated until the end of the no-activation period(s) and subject to the other requirements in the registry agreement
- Alternate Path to Delegation vs. Proposed Controlled Interruption Measure
 - Alternate Path to Delegation would not be available to newly delegated gTLDs if/when the Framework is adopted by the ICANN Board
 - Already delegated new gTLDs would only apply controlled interruption in their block list names (i.e., no DNS wildcard record under the TLD)
- Name Collision Reporting
 - Already available 24x7 to affected parties
 - New requirement in the proposal would be the threshold for demonstrably severe harm: clear and present danger to human life

Thank You & Questions?

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