



# SubPro WT 4: IDN / Technical / Operations

Meeting #10 0300 UTC 04 May 2017

# Agenda

**1-2**

Welcome and  
Opening Remarks  
SOI updates

**3**

Full WG Update

**4**

Name Collisions: a  
definition, pre-2012  
information

**5**

Name Collisions in  
2012-round gTLDs

**6**

Possible Name  
collisions policy  
options

**7**

AOB

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- 1. Welcome and Opening Remarks**
  - 2. SOI updates**

# 3. Full WG Update

# 4. Name Collisions: a definition, pre-2012 information

# Name collisions: possible work definition

- **“A name collision occurs when an attempt to resolve a name used in a private name space (e.g. under a non-delegated Top-Level Domain, or a short, unqualified name) results in a query to the public Domain Name System (DNS). When the administrative boundaries of private and public namespaces overlap, name resolution may yield unintended or harmful results.” (ICANN Name Collisions website)**
- **It can be caused by software behavior trying to match a request to a name, by deliberate configuration of a previously not delegated TLD, by roaming devices or by application bug (network x file-name confusions)**

# Name collisions: new name, old phenomena

- Once called “Invalid TLDs” or “Invalid Top Level Domain Queries”
- First described in a Jun 2009 CircleID post by George Kirikos:
  - [http://www.circleid.com/posts/20090618\\_most\\_popular\\_invalid\\_tlds\\_should\\_be\\_reserved/](http://www.circleid.com/posts/20090618_most_popular_invalid_tlds_should_be_reserved/)
- Following that post call to action, SSAC issued SAC 045 “Invalid Top Level Domain Queries at the Root Level of the Domain Name System” in November 2010
- Some possibly risky TLDs ended-up excluded like .local and .localhost; some allowed but not applied for, like .lan ; two received applications: .home and .corp.

# 5. Name Collisions in 2012-round gTLDs



# Name collisions after the application window (1/2)

- In March 2013, SSAC published SAC057, an advisory on internal names certificates detailing a significant information security threat vector to one of the possible collision sources: locally administered zones
- This triggered an ICANN-commissioned study by Interisle, which expanded the alleged possible harms to malfunctions, not only deliberate compromise of internal certificates
- This study started a fierce battle between some overplaying the consequences, and some downplaying the effects of name collisions

# Name collisions after the application window (2/2)

- **ICANN Org made a fork in the road, allowing TLDs to be delegated if registries blocked a list of observed possible collisions (APD - Alternate Path to Delegation)**
- **A new study was commissioned with JAS Advisors, which would create the Name collisions Framework**
- **CA/Browser Forum, the organisation that congregates most CAs and browser software developers, phased out issuance and revocation of internal name certificates**

# Name collisions framework in 2012-round

- **All 2012-round TLDs were required to pass a controlled interruption period and be able to respond within two hours for life-threatening collision reports, for the first two years of delegation**
- **During the controlled interruption period of 90 days, names would respond with an internal invalid address to warn affected users without exposing them**
  - **For APD lists, the same applied for those names in the list**
- **Current number of collision reports is 37 occurrences reported to ICANN, of which 0 were life-threatening**
  - **Other collisions might have been reported directly to registries, and some not reported at all**

# 6. Possible Name Collision Policy Options

# CC2 questions and possible policy options

- **4.4.2:**
  - **List of names to be excluded ? Method to produce such list ?**
  - **Name collision evaluation of each string ?**
- **4.4.3:**
  - **Reduction of controlled interruption period ?**
    - **CDAR report somewhat implies that a 60-day period could be enough**
- **4.4.1 and 4.4.3:**
  - **Initiating the interruption period before end of evaluation and delegation ?**

# 7. AOB