Proposed

Name Collision Analysis Workflow

As of 3 November 2021

Proposed Name Collision Analysis Workflow

0. Review risk of applying
1. Application submitted
2. Capture a picture of the collisions
3. Applicant prepares addendum to application
4. Board gets package for review

0. Review risk of applying

- Are name collisions present?
  - *Review public information*
    - Pre-publish top N list
    - ITHI
    - IMRS Hedgehog
  - DITL data review?
  - Other real-time data?

- What should applicant include in their application about their analysis?
  - How does this get done?
  - Some kind of technical review team to support applicants?

1. Application Submitted

- Technical package with name collision analysis must be included
  - Only if name collisions present?
  - Draft mitigation plan?
  - Draft remediation plan?
  - Trending data?

- How does this get done?
  - Some kind of technical review team to support applicants?

2. Capture a picture of the collisions (1 of 3)

- *Timing of Pictures*

- *Picture 1 as part of application*
  - *Assumes passive data at root or other DNS sources is available*
- *Picture 2 after controlled interruption*
  - *Trusted third party to conduct CI*
- *Picture 3 after honeypot, if that occurs?*
  - *Trusted third party to conduct HP*

2. Capture a picture of the collisions (2 of 3)

- Critical Diagnostic Measurements
  - Query Volume
  - Query Origin Diversity
    - IP distribution
    - ASN distribution
  - Query Type Diversity
  - Label Diversity
  - Other characteristics
    - Open Source Intelligence (OSINT) of string being used

- *DNS only in Pictures 1 and 2*
- *Whatever becomes visible is included in Picture 3*

2. Capture a picture of the collisions (3 of 3)

- *Develop assessment*
  - *Both Technical Review Team and Applicant*
  - *Does Technical Review Team support the Applicant?*
- *Impact is a function of both volume and diversity*
- Find the **impact**
  - Do we know why it's leaking?
  - What is the source of the collision?
  - When did collisions start? - time window for analysis
  - What could happen and what would the impact be if the delegation actually takes place?
- *For pictures 2 and 3*
  - *What did happen?*
  - *Outreach?*

3. Applicant prepares addendum to application

- Assume applicant wants to proceed with application
  - Could choose to withdraw

- Analysis of "impact"
- Remediation proposal
- Mitigation proposal

- Done after controlled interruption and honeypot if executed

4. Board gets package for review

- Picture 1
  - Is this is a step for the Board?
  - Perhaps just captured for the record?
- Picture 2
  - Three possible outcomes
    - YES - approve application
    - NO - reject application
    - MAYBE
      - Require honeypot
      - Require Picture 3
      - Addendum to the Board for a final decision