ICANN | 52

Singapore

8-12 FEBRUARY 2015
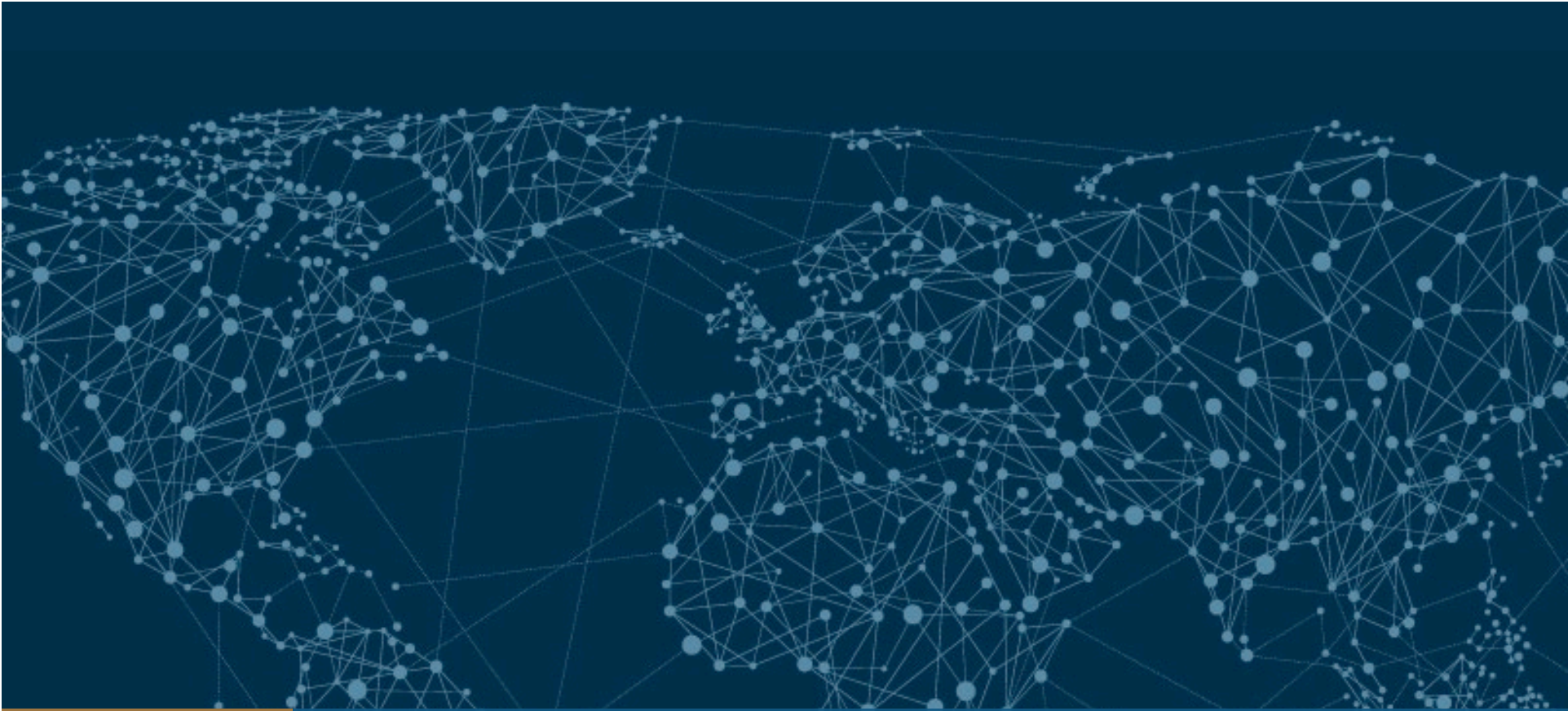
ICANN

Name Collision Mitigation

Francisco Arias | ICANN 52 | 10 February 2015

Agenda
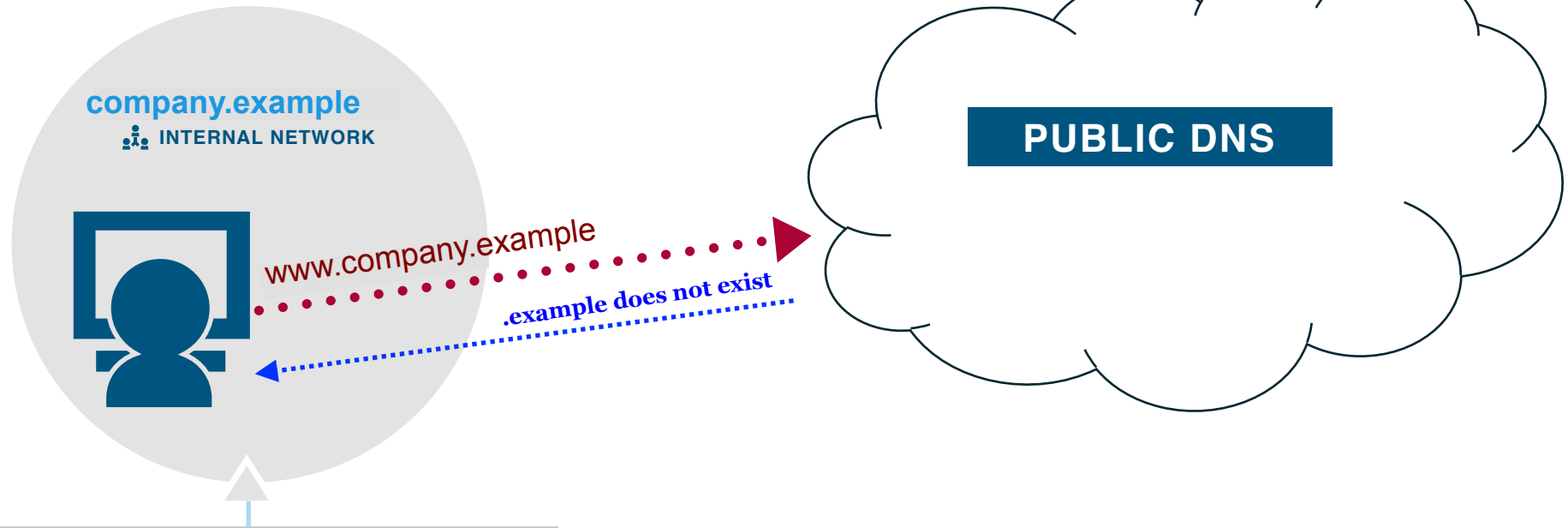
1 Introduction & Background
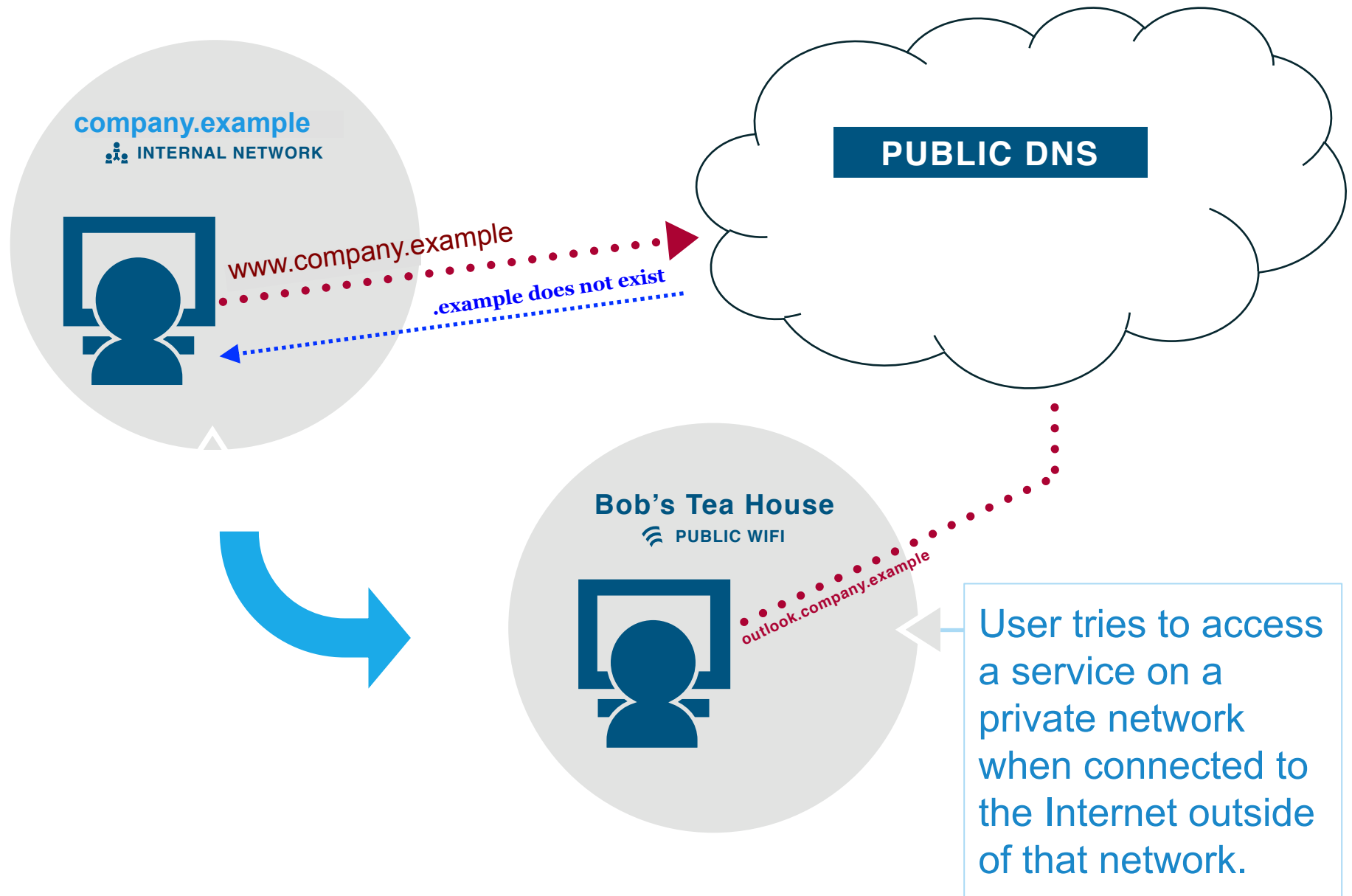
2 Recommendations for new ccTLDs

3 Questions & Answers

Introduction & Background

Name Collision Basics

company.example
INTERNAL NETWORK

www.company.example

.example does not exist

PUBLIC DNS

Private network configured in such a way that could "leak" the request to the public Domain Name System, when using a name in a private network that *does not exist* in the public DNS

Name Collision Basics

company.example
INTERNAL NETWORK

www.company.example

.example does not exist

PUBLIC DNS

Bob's Tea House
PUBLIC WIFI

outlook.company.example

User tries to access a service on a private network when connected to the Internet outside of that network.

Name Collision Basics

company.example
👥 INTERNAL NETWORK

⚠️ NAME COLLISION

PUBLIC DNS

.EXAMPLE
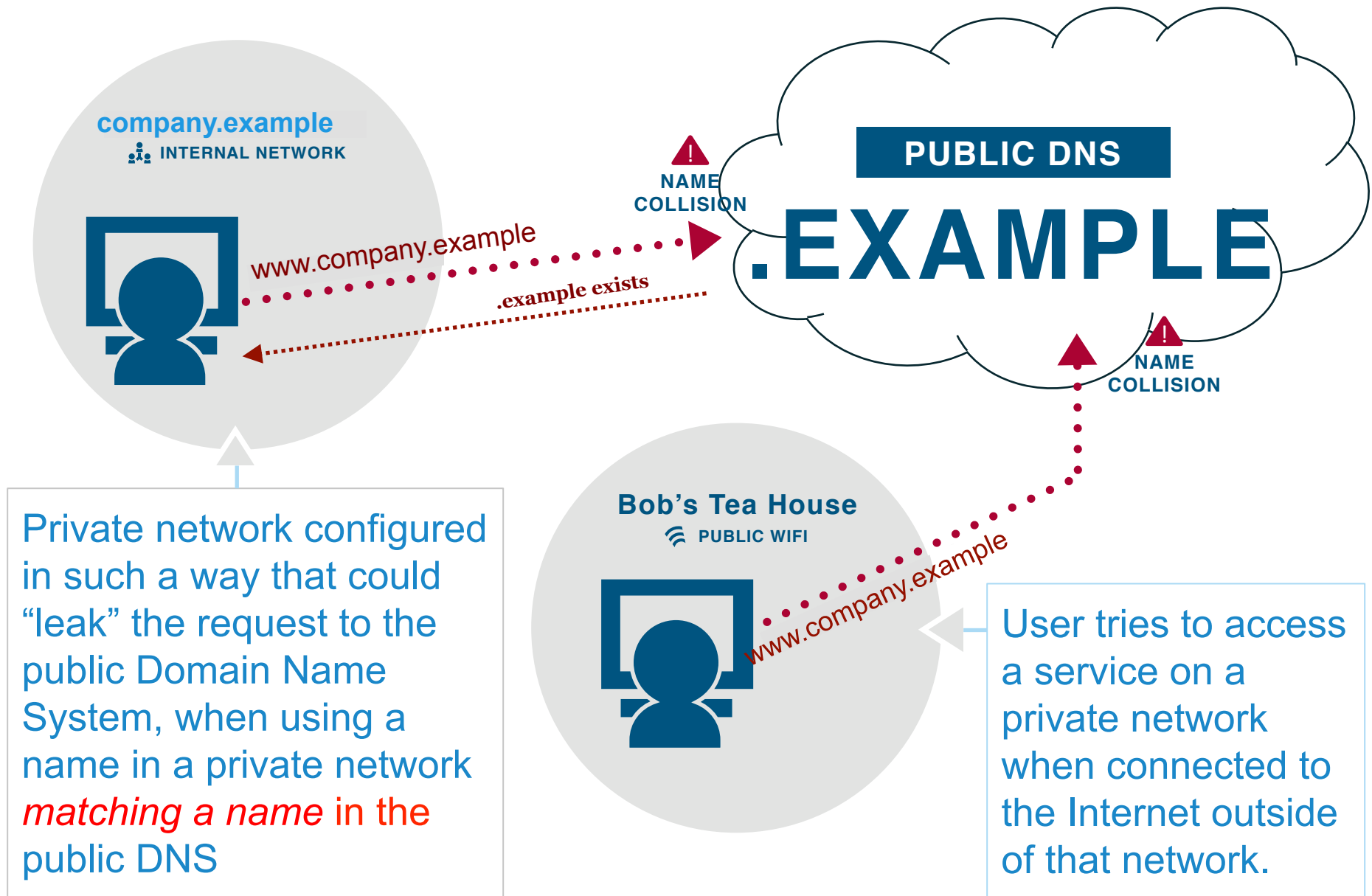
⚠️ NAME COLLISION

www.company.example ▶

.example exists

Private network configured in such a way that could "leak" the request to the public Domain Name System, when using a name in a private network *matching a name* in the public DNS

Bob's Tea House
📶 PUBLIC WIFI

www.company.example

User tries to access a service on a private network when connected to the Internet outside of that network.

Background

7 October 2013: NGPC adopted the New gTLD Collision Occurrence Management plan

- Plan Overview
  - Defer delegating *.home* and *.corp* indefinitely
  - **Commission a study to develop a Name Collision Occurrence Management Framework ("the Framework")**
  - **Each new gTLD registry to implement a Collision Occurrence Assessment based on the Framework**
  - Provide Alternate Path to Delegation for eligible strings
  - Conduct Outreach Campaign

30 July NGPC Resolution

1. **Adopts the Framework and directs its implementation**

2. Directs undertaking a consultation re: RPM requirements for SLDs in block list, recorded in the TMCH, which were withheld from allocation during Sunrise or Claims

3. Consider policy work within GNSO re: long-term plan to manage name collisions

4. **Share information and best practices with ccTLDs**

Recommendations for New ccTLD Managers

1. Implement Controlled Interruption

- Controlled Interruption for, at least, *90* days
  - Continuous interruption (i.e., not intermittent)
  - Use loopback address (127.0.53.53)
  - Add IPv6 option when available
- Apex and wildcard A, MX, SRV, and TXT records
- No activation of names until after controlled interruption has been completed

TLD Wildcard Controlled Interruption

```
TLD. 3600 IN MX 10 your-dns-needs-immediate-attention.TLD.
*    3600 IN MX 10 your-dns-needs-immediate-attention.TLD.
TLD. 3600 IN SRV 10 10 0 your-dns-needs-immediate-attention.TLD.
*    3600 IN SRV 10 10 0 your-dns-needs-immediate-attention.TLD.
TLD. 3600 IN A 127.0.53.53
*    3600 IN A 127.0.53.53
TLD. 3600 IN TXT "Your DNS configuration needs immediate
attention see https://icann.org/namecollision"
*    3600 IN TXT "Your DNS configuration needs immediate
attention see https://icann.org/namecollision"
```

2. Implement Name Collision Reporting Mechanism

- To act upon cases of severe harm (e.g., clear and present danger to human life)
- For, at least, the early days of the TLD
- Examples of Temporary Measures
  - Removal of wildcard records from DNS
  - In extreme cases, removal of the TLD itself from the root zone (e.g., in case of harm caused by the TLD itself – dotless name – during the controlled interruption period)

Resources

- Guide to Name Collision Identification and Mitigation for IT Professionals
  - https://www.icann.org/en/system/files/files/name-collision-mitigation-01aug14-en.pdf
- Recommendations for new ccTLD managers
  - https://www.icann.org/resources/pages/cctld-mitigation-2014-10-02-en
- For further information, consult:
  - https://icann.org/namecollision

Engage with ICANN

Thank You and Questions

Reach us at:
Email: engagement@icann.org
Website: icann.org

ICANN

twitter.com/icann

facebook.com/icannorg

linkedin.com/company/icann

youtube.com/user/icannnews

gplus.to/icann

weibo.com/ICANNorg

flickr.com/photos/icann

slideshare.net/icannpresentations