



ICANN NO. 51 | 12-16 OCTOBER 2014
LOS ANGELES

#ICANN51

15 October 2014

Name Collision Mitigation Update

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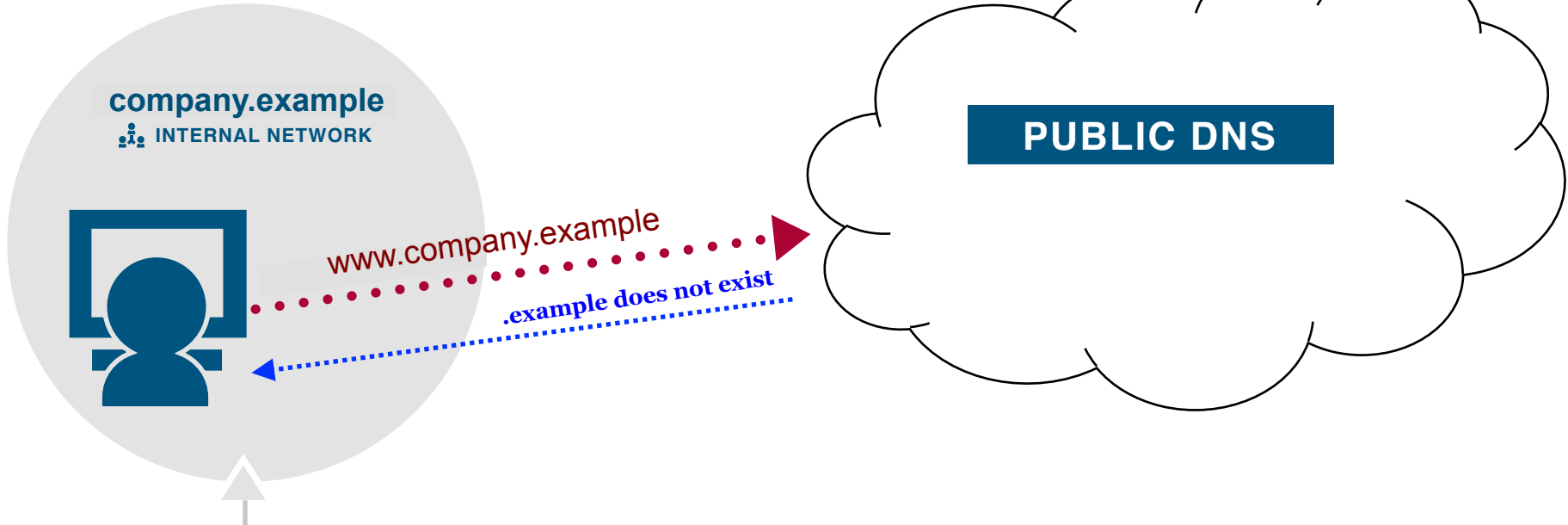


Agenda

- Introduction & Background
- Name Collision Occurrence Management Framework
- Name Collision Occurrence Assessment
- Rights Protection Mechanisms
- Next Steps
- Q&A

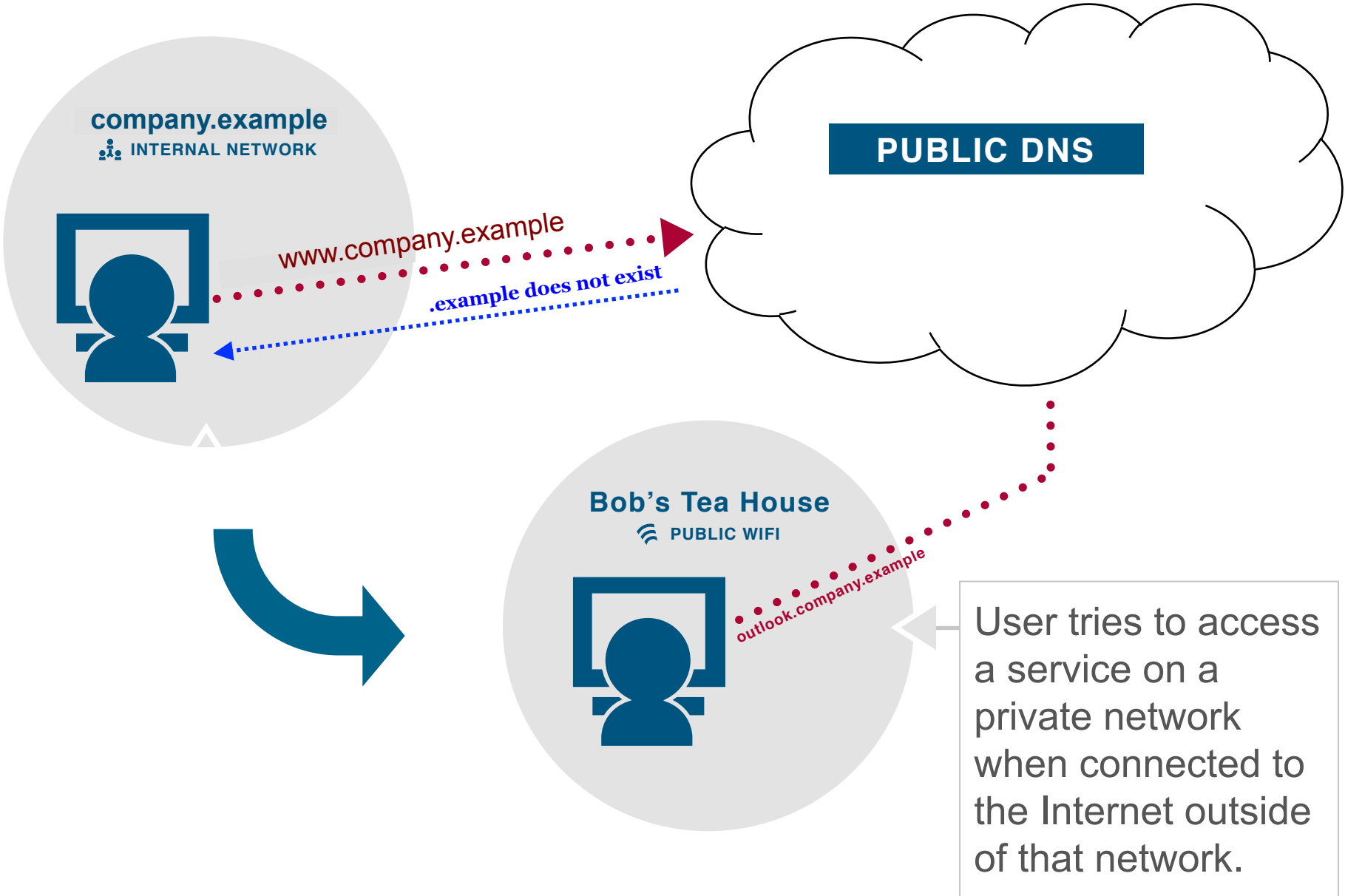
Introduction & Background

Name Collision Basics

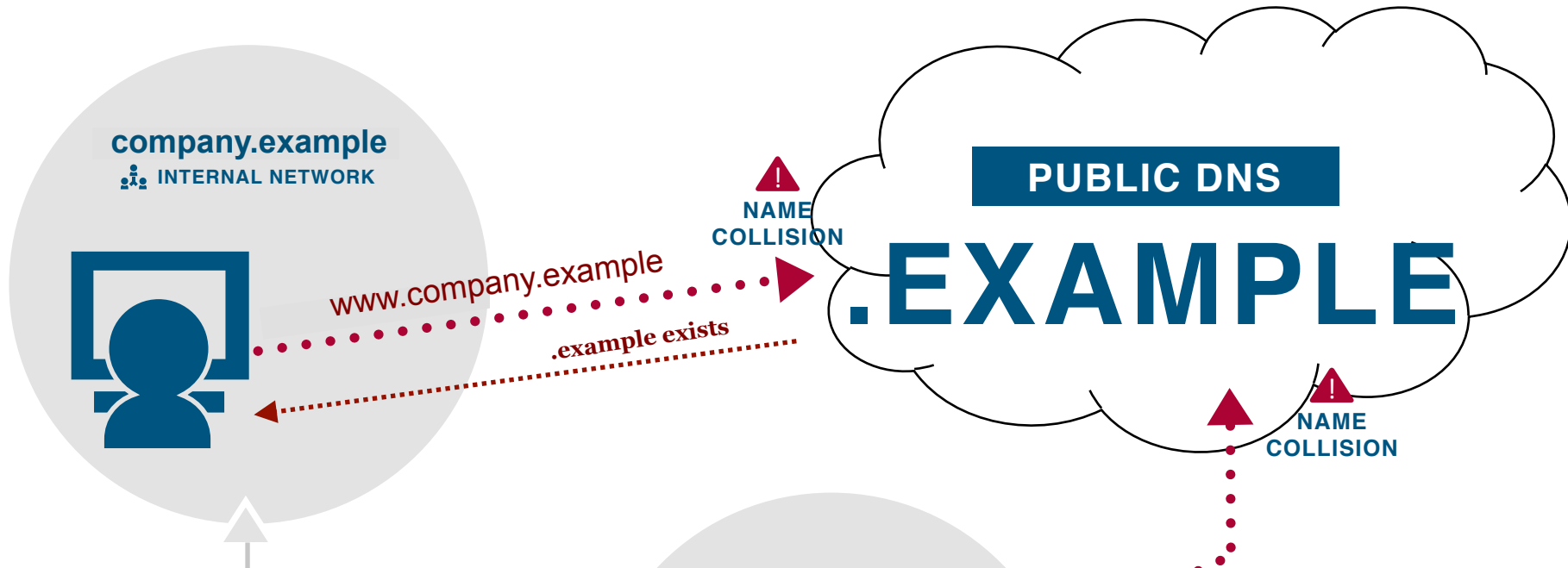


Private network configured in such a way that could “leak” the request to the public Domain Name System, when using a name in a private network *that does not exist in the public DNS*

Name Collision Basics



Name Collision Basics



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*

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

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

Name Collision Occurrence Management Framework

ICANN Implementation of the Framework

- Defer delegating **.mail** indefinitely (like **.corp** and **.home**) and work within the IETF to reserve those names permanently
- Produce information materials on name collision
 - Make this information available on key web searches
- Work within IETF to identify IPv6 option
- Work with root server operators to measure and store data that can be used for name collision studies and prevention in the future

ICANN Implementation of the Framework

- Limit emergency response regarding name collision where there is clear and present danger to human life
- EBERO-like mechanism to cover registry unresponsiveness in regard to name collision reports
- Last resort procedure to remove TLD causing harm (i.e., a dotless name) during the Controlled Interruption period

Name Collision Occurrence Assessment

Name Collision Report Handling

- Required for the *first 2 years* of the life of the TLD
- Respond *within 2 hours* of request from ICANN
- Requests to be delivered by ICANN to the Registry's emergency contacts by S/MIME signed email from <name-collision-report@icann.org>, followed by phone call
- Requests to temporarily:
 1. Place a domain name in serverHold status; or
 2. Remove wildcard records from DNS when doing wildcard controlled interruption

In extraordinary circumstances, other remediation measures may be required

Controlled Interruption

- Implement Controlled Interruption for **90** days
 - Continuous interruption (i.e., not intermittent)
 - Use loopback address (127.0.53.53)
 - Add IPv6 option when available
- Names can be allocated and undergo Sunrise and Claims during this period (subject to other applicable provisions)

TLD Wildcard Controlled Interruption

- Mandatory for TLDs delegated *on or after* 18 August 2014 (Alternate Path to Delegation no longer available)
- Option available to those delegated before 18 August 2014, only if TLD has no active names (other than “nic”)
- Apex and wildcard A, MX, SRV, and TXT records
- No activation of names until after the 90-day controlled interruption has been completed

SLD Controlled Interruption

- Aimed at TLDs delegated *before* 18 August 2014 that have activated names
- Uses A, MX, SRV, and TXT records for the SLDs in block list during, at least, 90 days
- No other DNS records can be added for the SLDs until after the 90-day controlled interruption has been completed
- A TLD cannot switch between SLD and TLD controlled interruption

SLD Controlled Interruption Variations

- ICANN considered the following requests:
 - ✓ Have wildcard records under the SLDs while in SLD controlled interruption
 - Available since 22-Sep-2014 and **strongly recommended**
 - Allow delegation of SLDs in block list to registry name servers that implement SLD controlled interruption
 - Will be available beginning on 17-Nov-2014 00:00 UTC

Flat SLD CI

At first required “flat” SLD CI:

```
<label>.<TLD>. 3600 IN A 127.0.53.53
```

```
<label>.<TLD>. 3600 IN MX 10 your-dns-needs-immediate-attention.<TLD>.
```

```
<label>.<TLD>. 3600 IN SRV 10 10 0 your-dns-needs-immediate-attention.<TLD>.
```

```
<label>.<TLD>. 3600 IN TXT "Your DNS configuration needs immediate attention see https://icann.org/namecollision"
```

Wildcard SLD CI

Now strongly recommend adding “Wildcard”:

```
*.<label>.<TLD>. 3600 IN A 127.0.53.53
```

```
*.<label>.<TLD>. 3600 IN MX 10 your-dns-needs-immediate-attention.<label>.<TLD>.
```

```
*.<label>.<TLD>. 3600 IN SRV 10 10 0 your-dns-needs-immediate-attention.<label>.<TLD>.
```

```
*.<label>.<TLD>. 3600 IN TXT "Your DNS configuration needs immediate attention see https://icann.org/namecollision"
```

Controlled Interruption Variations

1. TLD Wildcard CI

2. SLD CI

2.1. In-TLD-Zone, Wildcard SLD CI

2.2. Delegation-to-Self, Wildcard SLD CI

2.3. In-TLD-Zone, Flat SLD CI

2.4. Delegation-to-Self, Flat SLD CI

<http://newgtlds.icann.org/sites/default/files/agreements/name-collision-sld-controlled-interruption-12sep14-en.htm>

Registry Agreement Waivers

- 1) Section 2.2 of Specification 6 (e.g., to allow the use of wildcard records); and
- 2) Section 1 of Exhibit A (e.g., to allow the use of A, MX, SRV, and TXT records in the zone apex and SLDs)

Waivers are only for purposes of implementing the controlled interruption and will cease upon termination of controlled interruption in the TLD.

Other obligations remain while in controlled interruption (e.g., DNSSEC, providing RDDS services at `whois.nic.<tld>`)

Starting & Finalizing Controlled Interruption

- Registries do not need to inform ICANN of the start or end of their controlled interruption
- ICANN will monitor implementation and raise exceptions with the registry
- Monitoring will be done primarily using the zone files provided by registry
- Registries should ensure their zone file transfer to ICANN is working

Controlled Interruption Status Reports

From ICANN CI monitoring:

- 344 TLDs in SLD CI
- 70 TLDs in TLD Wildcard CI
- 4 TLDs have not yet started CI
- <https://www.icann.org/sites/default/files/ci-monitoring/citld-current.csv>
- <https://www.icann.org/sites/default/files/ci-monitoring/citld-complete.csv>

Web Ads Statistics

Campaign dates: 24 July – 6 Oct 2014

- Impressions: 4,543
- Clicks: 399
- Click through rate: 8.78%
- #1 keyword: 127.0.53.53

Reports of Harm

- Received 13 reports so far
 - 7 are search list related
 - 4 are non-public DNS names
 - 1 caused by configuration typo
 - 1 unknown
- No reports involve harm to human life

Next Steps

- Work within the IETF to identify IPv6 option for controlled interruption
- Work within the IETF to reserve indefinitely [.corp](#), [.home](#), and [.mail](#)
- Work with root server operators to measure and store data that can be used for name collision studies and prevention in the future
- Reach out to GNSO regarding a long-term plan to manage name collisions
- Share information and best practices with ccTLDs regarding managing name collision risks in new TLDs

Resources

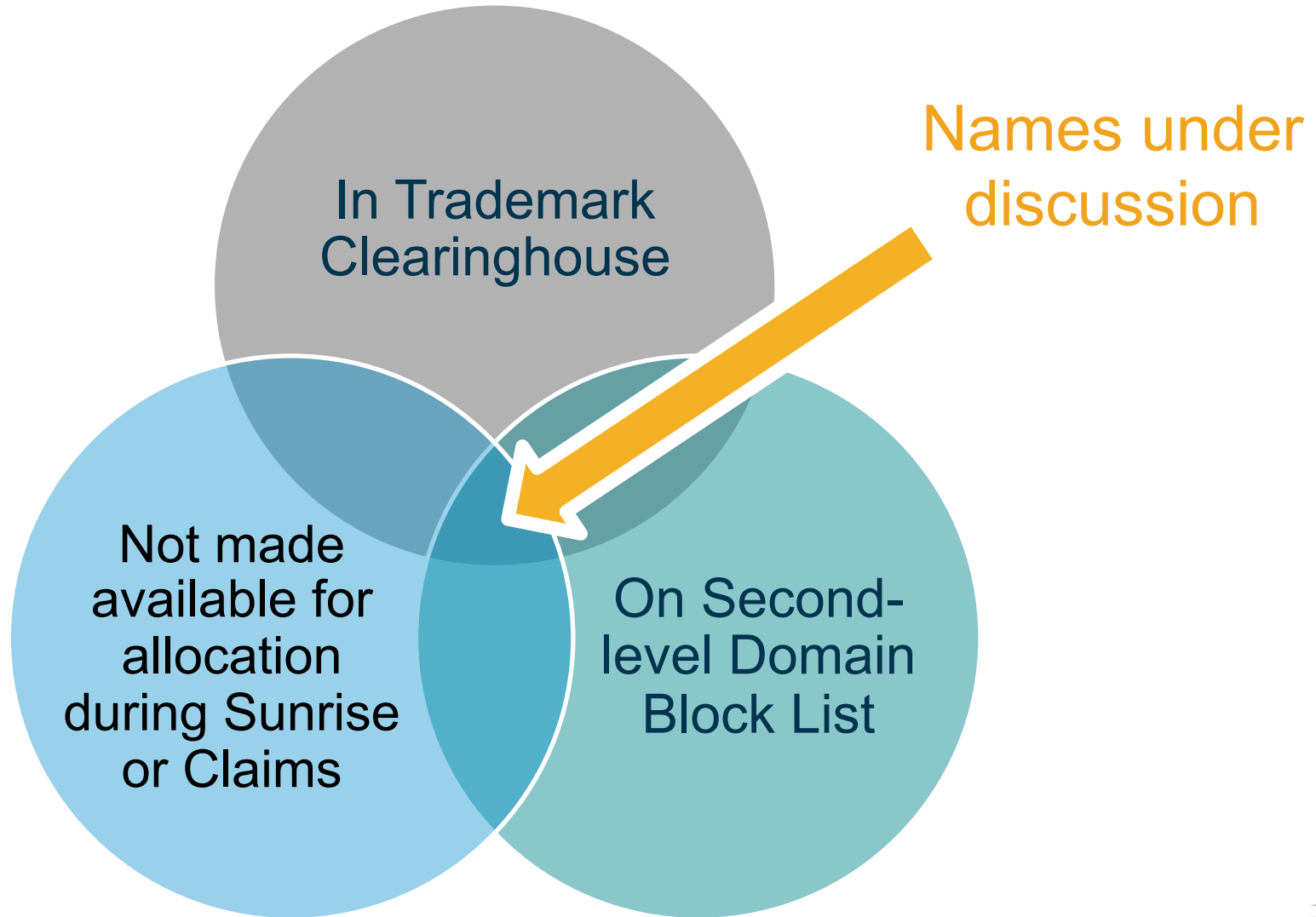
- Guide to Name Collision Identification and Mitigation for IT Professionals
 - <https://www.icann.org/en/system/files/files/name-collision-mitigation-01aug14-en.pdf>
- If suffering name collision, report it to ICANN
 - <https://forms.icann.org/en/help/name-collision/report-problems>
- Report of signed RAs with delegation dates
 - <https://newgtlds.icann.org/newgtlds.csv>
- For further information, consult:
 - <https://icann.org/namecollision>

Rights Protection Mechanisms

Community Consultation

30 July 14 NGPC resolution directed staff to consult with the community during the next 90 days from the publication of these resolutions to address appropriate rights protection mechanisms for names included in a Registry Operator's Alternate Path to Delegation Report and recorded in the Trademark Clearinghouse that Registry Operator withheld from allocation during its Sunrise period or Claims period.

Affected Names



Exclusive Registration Period Proposal

- Proposed by the Business Constituency, Intellectual Property Constituency, and Registry Stakeholder Group
- Registry would offer an exclusive registration period for these names
- Targeted communications to support this process
- 90-day Claims period would not be applied to release of SLD block list names

Exclusive Registration Period Proposal

RO should be allowed to choose one of two paths:

1) Opt into one of two batched waves of start dates for exclusive registration periods

- Operate a 30-day exclusive registration period
- Provide 10 days advance notice of intent to join a wave

10 days notice

30 day exclusive
registration period

30 day exclusive
registration period

Exclusive Registration Period Proposal (cont.)

2) Requirements would mirror those of registry's original Sunrise:

- Registries not opting into a wave would provide an exclusive registration period under the same provisions as their original Sunrise period (i.e., Start-Date or End Date)

Exclusive Registration Period Proposal (cont.)

- RO to notify the TMCH of registration of domain names during exclusive registration period (i.e., upload of LORDN file)
- Registrations may occur via manual handling rather than EPP
- Registration policies for exclusive registration period must mirror those of the Sunrise
 - Registries should extend their existing Sunrise Dispute Resolution Policy

Next Steps

- Per measure II, section C in the Name Collision Occurrence Assessment, the registry must continue to withhold the names from allocation while ICANN consults with the community about appropriate rights protection mechanisms
 - Public Comment Period Reply Phase closed on *7 October 2014*
 - ICANN to develop and publish requirements on the appropriate Rights Protection Mechanisms for releasing these names
 - The registry will be provided an updated Name Collision Occurrence Assessment (if applicable) with details about how to activate these names

GDD + Related Sessions

Wednesday, 15 October

- Registry Services Update
- Rights Protection Mechanisms: User Feedback
- DNS Risk Framework
- GDD Service Delivery, Customer Service & SLAs
- Universal Acceptance

Thursday, 16 October

- DNSSEC Key Rollover Workshop
- Thick WHOIS Implementation (Working Session)
- Deploying the IETF's WHOIS Replacement

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