



Using Test Delegations from the Root Prior to Full Allocation and Delegation

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What is this all about?

If we want to know whether some candidate TLD is in use on the Internet, we have to measure that.

The name collision report

[http://www.icann.org/en/about/staff/
security/ssr/name-collision-02aug13-en.pdf](http://www.icann.org/en/about/staff/security/ssr/name-collision-02aug13-en.pdf)

The draft

<http://tools.ietf.org/html/draft-kolkman-root-test-delegation-00>

(updates soon)

Disclaimer

- Draft written with Olaf Kolkman, Geoff Huston, George Michaelson, and Warren Kumari
- They didn't vet this presentation & when I get it wrong, please just blame me

Overview

- Basic approach is to stimulate queries for the candidate string
- At the same time, stimulate queries for some other (regular) name
- Compare the behaviour

What we'll need

- Some special names
- A special name server
- An advert network
- The candidate string in the root (!)

Special labels

- TestName.
- CandidateTLD.
- ExistingTLD.

- Random string
- Constant through test
- Should be “semantic nonsense”
- Must be LDH-valid
- Mustn't exist already

A constant

*This string is used
in every test.*

The TestName

- Needs to be “normal”
- Probably not com.
- Probably not an IDNA label
- Are there problems using a ccTLD?

A control

The ExistingTLD is used to hold names that should work fine on the Internet

The ExistingTLD

- Assume the low-risk category from the report is right
- Do this for the other cases
- *Needs to be delegated to instrumented name server*

The subject

The CandidateTLD's use is what we're trying to test

The CandidateTLD

- Each test round gets a uniqueid that identifies the same query source
- Syntactically valid LDH label

An identifier

The uniqueid ties the different queries together

The <uniqueid>

QNAMEs we might see

- <uniqueid>-a.TestName.
- <uniqueid>-b.TestName.CandidateTLD.
- <uniqueid>-c.TestName.ExistingTLD.

- <uniqueid>-
b.TestName.CandidateTLD.
doesn't exit the network
- <uniqueid>-a.TestName.
and <uniqueid>-
c.TestName.ExistingTLD.
will be observed

One

*Local use of
CandidateTLD but
no search list*

Cases

- <uniqueid>-
b.TestName.CandidateTLD.
doesn't exit the network
- <uniqueid>-a.TestName. gets
search listed, doesn't exit the
network
- <uniqueid>-
c.TestName.ExistingTLD. will be
observed

Cases

Two

*Local use of
CandidateTLD and
CandidateTLD in
search list*

- All names observed

Three

*No local use of
CandidateTLD,
including in search
lists*

Cases

- <uniqueid>-
b.TestName.CandidateTLD. and
<uniqueid>-
c.TestName.ExistingTLD both
observed
- <uniqueid>-a.TestName. gets
search list: <uniqueid>-
a.TestName.CandidateTLD

Four

*No local use of
CandidateTLD,
including in search
lists*

Cases

Open questions

- Should we test for http fetches?
 - Requires actual resolution of names
- Is even a test delegation acceptable?
- How much use is ok?
 - Probably a policy question that's not our problem?



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Thank you