

Definition of Name Collision and Scope of Inquiry for the Name Collision Analysis Project

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Name Collision Definition

Name collision refers to the situation in which a name that is used in one namespace may be used in a different namespace, where users, software, or other functions in that domain may misinterpret it.

In the context of top level domains, the term “name collision” refers to the situation in which a name that is used in the global Domain Name System (DNS) namespace defined in the root zone as published by the root management partners - ICANN and VeriSign, (the RZM namespace) may be used in a different namespace (non-RZM) , where users, software, or other functions in that domain may misinterpret it.

Scope of Inquiry for the Name Collision Analysis Project

A. In scope and subject of data studies

These are situations that fall under the high-level definition of name collision, which will be examined in depth through data analysis as part of this project.

- a. User Alice intentionally uses .EXAMPLE in a non-RZM context and .EXAMPLE is now delegated in the public DNS. User Alice suffers adverse impact as a result.
- b. User Alice unintentionally uses .EXAMPLE in a non-RZM context (for example as the result of a software behaviour) and .EXAMPLE is now delegated in the public DNS. User Alice suffers adverse impact as a result.
- c. Registrant Alice uses EXAMPLE as a label anywhere except as a non-RZM TLD, and relies on search list processing where the label EXAMPLE is the terminal label, as an intermediate step in that search list processing. (*e.g. User searches for dashboard.example.com by typing in dashboard.example*) .EXAMPLE is now registered in the public DNS and the search list processing behaviour of Alice now changes.

B. In scope but not intended to be the subject of data studies

These are situations that fall under the high-level definition of name collision, but are not necessarily related to the introduction of new domains and are not intended to be examined through data analysis or in any other way, unless a compelling case is agreed at a later stage.

- a. Registrant Alice uses EXAMPLE.COM (or EXAMPLE.TLD where TLD is any current TLD in the public DNS) and .EXAMPLE is now registered in the public DNS. Registrant Alice now receives multiple queries as a result of search list processing of users of domains under .EXAMPLE
- b. Registrant Alice uses .EXAMPLE as a TLD in the public DNS and then lets the registration expire. Registrant Bob then registers and delegates .EXAMPLE.

Traffic intended for Alice's use of .EXAMPLE is now received by Bob's use of .EXAMPLE

- c. Registrant Alice uses EXAMPLE.COM and then lets the registration expire. Registrant Bob then registers and delegates EXAMPLE.COM. Traffic intended for Alice's use of EXAMPLE.COM is now received by Bob's use of EXAMPLE.COM

C. Out of scope

These are situations that some may regard as falling under the high level definition of name collision, while others may disagree. For the avoidance of doubt these are specifically listed as out of scope for this project.

- a. Registrant Alice uses .EXAMPLE as a TLD in the public DNS. Registrant Bob registers and delegates .EHAMPLE as a TLD in the public DNS. Alice now receives **bit flip** traffic intended for Bob and vice versa.
- b. General IDN confusion issues