



Testing Most Authoritative Servers for Conformance

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ICANN has recently begun testing live authoritative servers for conformance to the DNS protocols, particularly for TCP and EDNS(0) compliance. We do this by collecting registered names from the zone files of all gTLDs, as well as a representative sampling of names registered in the ccTLDs. This paper shows the test methodology, the levels of compliance found, and suggests avenues for further testing.

Summary

Earlier research has tested DNS conformance on small samples of authoritative servers. In order to assess how well earlier research matches the real world, we have mapped all names registered in gTLDs to their authoritative nameservers in order to have one or more names that can be queried in our tests. In addition, we use a few non-invasive techniques to estimate how many names registered in ccTLDs are associated with nameservers not in the gTLD data. We then run representative tests, give results, and ask for suggestions about further tests that might be valuable to the DNS operations community in deciding which features of the DNS are reliably implemented.

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