Valibox: Bringing DNSSEC Validation to the Home

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Validation Rates

DNSSEC Validation Rate by country (%)
Why is That?

• ISPs think it is hard

• Zone administrator failure results in support call

• “Site X works with competitor Y but not you!”

• Negative trust anchors centrally maintained at validating resolver (if at all)
Introducing the Valibox

• Goal: plug-and-play DNSSEC validation for cheap home routers and other CPEs

• Valibox = installable software image for OpenWRT devices with Unbound and our extensions

• Showcased on GL-Inet devices, providing local wireless network with DNSSEC validation
But Wait, There’s More!

• Our extension of Unbound

• Better DNSSEC error reporting

• Custom NTA management
Valibox Software

- Open source
- https://valibox.sidnlabs.nl
- https://github.com/SIDN/sidn_openwrt_pkgs
So Again, Why?

• Allow less technical people to have DNSSEC at home

• (Make Valiboxes for your friends!)

• Experiment with negative trust anchor management

• Platform for future other home network protection tools
Questions and Discussion

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