

Will an ESNI RRType Diverge From the A/AAAA Results?

Let's find out....

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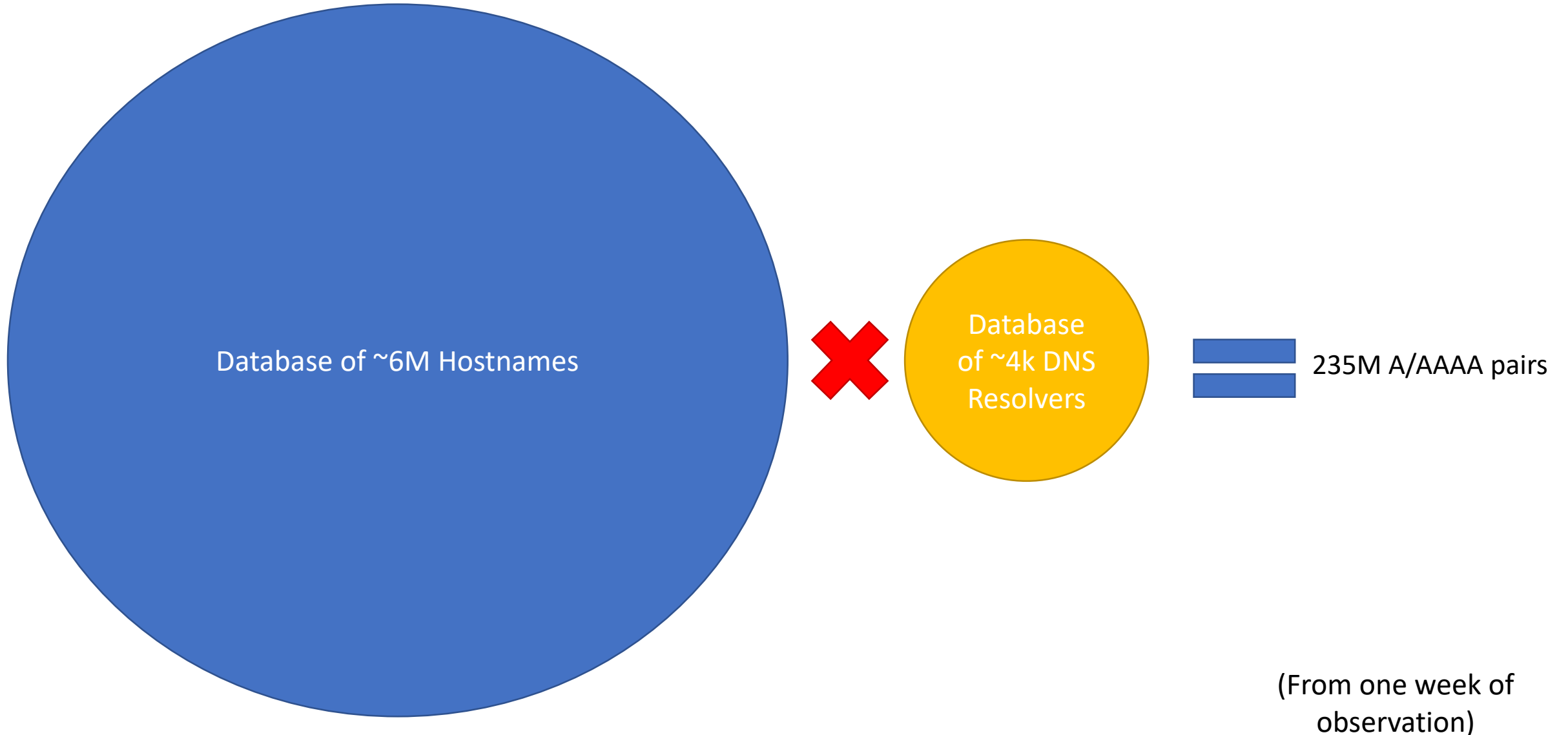
Except we can't.

~~Will an ESNI RRType Diverge
From the A/AAAA Results?~~

Do A and AAAA RRTypes
Diverge From Each Other?

Let's find out....

Gather a Ton of Data....



...And Throw Most of It Away

We ignore:

- Hostnames which don't resolve to an identifiable CDN
- Hostnames which always resolve to the same CDN
- Resolutions which didn't return both an A and a AAAA result

Leaves us with 224k pairs of resolutions covering 2,559 hostnames



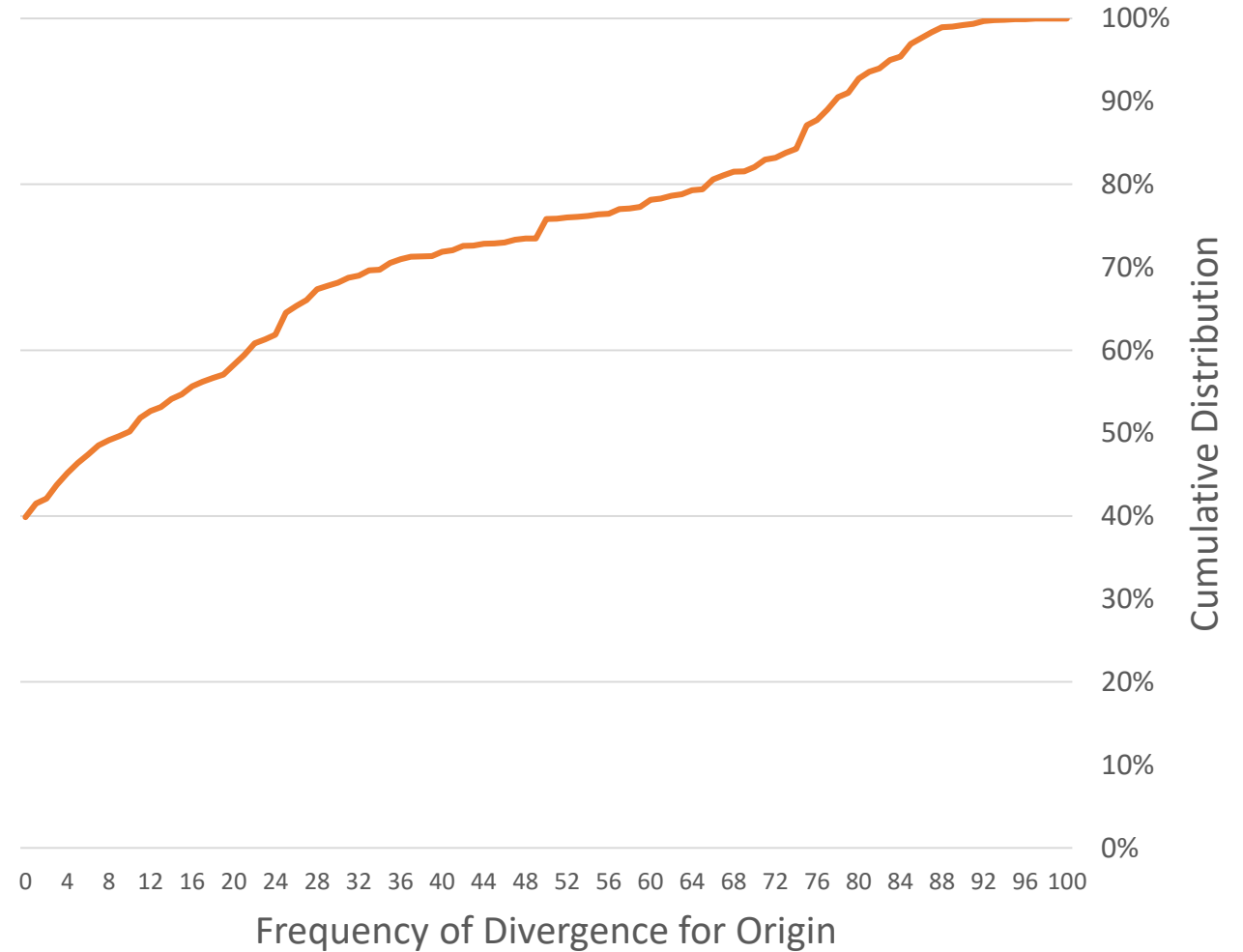
Depends How You Slice It

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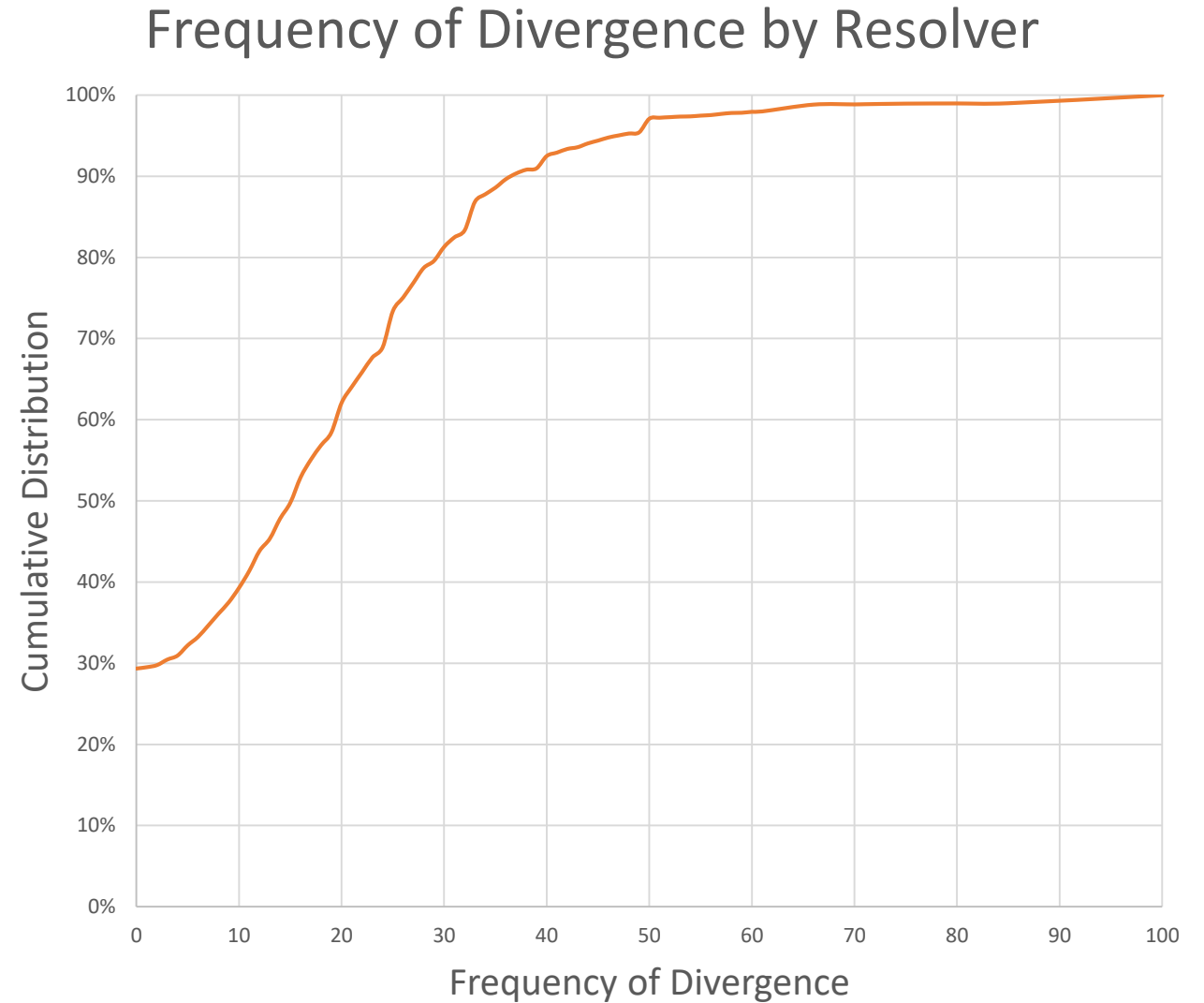
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- Varies by hostname; ~40% of hostnames never diverge

Frequency of Divergence by Origin



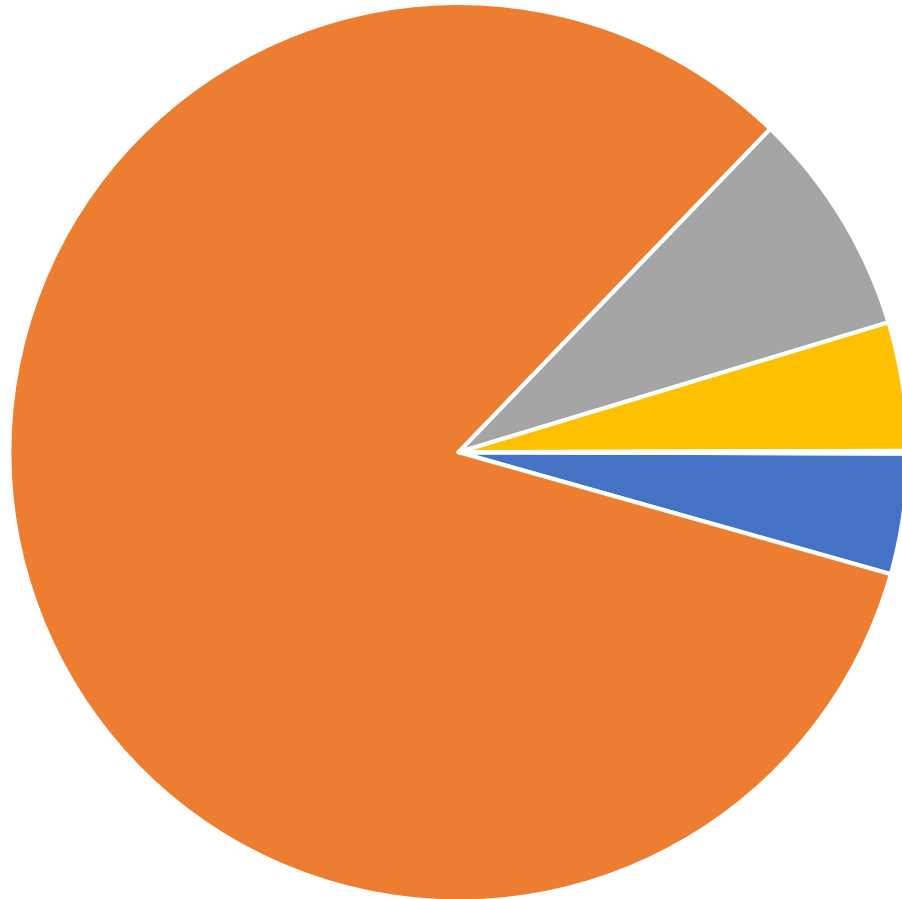
Depends How You Slice It

- 22.9% of all resolutions observed divergence between A and AAAA records
- Varies by hostname; ~40% of hostnames never diverge
- Varies by resolver
 - Almost 30% of resolvers never diverge
 - Only a few resolvers diverge consistently

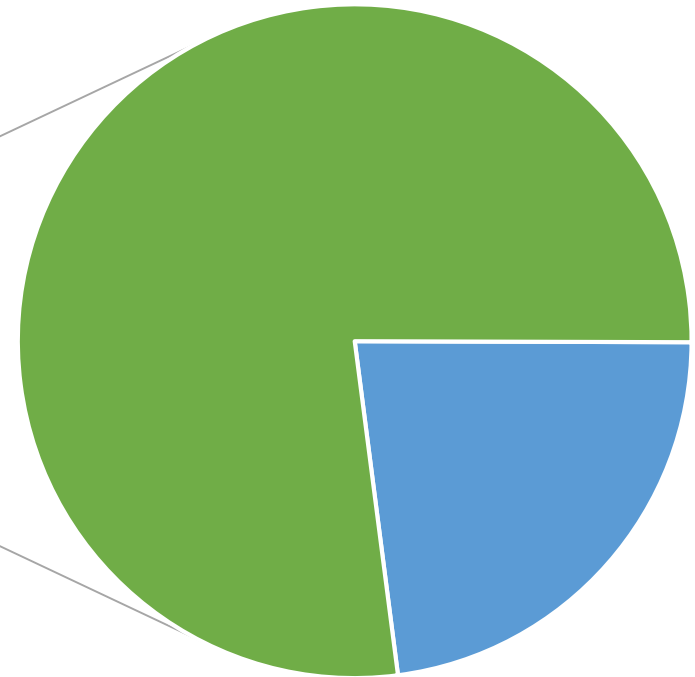


Different Perspectives

What Clients See



What Multi-CDN Site Operators See



■ Both A and AAAA failed ■ Either A or AAAA failed ■ No CDN identified ■ Only one CDN identified ■ A/AAAA diverged ■ A/AAAA consistent