ANY

Joe Abley
Ólafur Guðmundsson
Marek Majkowski

Why is ANY query bad?

• Amplification
• Information Leak
• Unreliable
• Expensive
ANY uses

1. Debugging: i.e. Human asks and parses answer

2. Probabilistic Optimization: trying to get one or more answers in one query, Program asks then falls back on direct queries if answer is not useable

3. Misunderstanding by a programmers

4. Amplification attacks
Draft Goal:
be simple and non-disruptive

• Assumption #1 ANY != ALL

• Assumption #2 RCODE != 0 is bad

• Assumption #3 Resolver should cache
  • Something is better than nothing

• Assumption #4 Human should Understand

• Document how to avoid returning big answers
Resolver behavior

• Popular Resolvers interpret RFC2181 to mean

  • Answers returned in ANY query can not be used to answer for that type!!!

  • This makes probabilistic optimization useless on cold cache
Approach

- Return one RRSET
- DNSSEC signed if needed
- Each implementation can chose what they want
- Fake answer is fine as long it is harmless
- HINFO suggested as it can be displayed by deployed code
Next steps

• Draft has been adopted
• Almost Ready for WGLC?
• Number of implementations deployed