DNSSEC Deployment Metrics Research

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1. Challenge: DNSSEC deployment is a wide field
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2. Challenge: One metric, different measurement techniques

Passive vs Active
End user vs Recursive Resolver vs Authoritative Name Server
Measurement platform vs "Hack"
Raw vs Aggregated
Full control vs Reliant on third party
Transparent vs Opaque
Our Approach

1. Study a broad range of research
   • from academia
   • presented at conferences by the industry (RIPE, ICANN DNSSEC workshop, ...)
2. Gap analysis with identified metrics
3. Develop assessment framework to assess measurement techniques
Technique Assessment

• Measurement technique has large impact on each metric
• Assess each technique based on:
  • **Coverage** – which parts of the ecosystem can be measured theoretically and with what bias?
  • **Reproducibility** – are all measurement parameters known and is the setup transparent?
  • **Feasibility** – does the technique rely on 3rd parties e.g., data or access to vantage points?
Measurements in the interest of the community

*When you could name one DNSSEC metric that should be measured, what would that be?*
Measurements in the interest of the community

When you could name one DNSSEC metric that should be measured, what would that be?

When you could name one aspect that is most important when measuring a metric, what would that be?
Measurements in the interest of the community

When you could name one DNSSEC metric that should be measured, what would that be?

When you could name one aspect that is most important when measuring a metric, what would that be?

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Thank you