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- Large Scale Internet Measurements
- With a focus on
  - IPv6 deployment and usage
  - DNS resilience and exploitability
- Providing reproducible, ethical and precise artifacts

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## rDNS WALKING FOR IPv6 HITLIST CREATION

**Background**

**IPv6 Hierarchy**

- IPv6 address range (2<sup>120</sup>)
- Global set of recursive addresses required
- Unfeasible

**Recursive DNS**

- Part of DNS
- Internet (2<sup>120</sup> Entries)
- Addresses represented as subdomains of IPv6 space
- 2000:0000:0000:0000:0000:0000:0000:0000
- 2000:0000:0000:0000

**IPv6 Hierarchy**

- Global set of recursive addresses required
- Unfeasible

**Problem**

- Performance might be bottleneck
- Small set of recursive addresses for DNS

**Required Goals**

- Scalable development and deployment
- Complete recursive dependencies
- Scalable
- Hierarchical structure of queries
- Hierarchical structure of responses

**Requirements for the Recursive Resolver**

- Scalable
- Scalable
- Scalable

**Performance Metrics**

**Recursive Resolver**

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## Poster:

- rDNS Walking for IPv6 Hitlist Creation

## Interested about e.g.:

- Can we create traffic with precise timestamps from a target (PTP, NTP, ...) to better calculate transmission time?
- Can DNS be used to create meaningful UDP traffic for network measurements and analysis?