**Background**

IPv6 Hitlists:
- Address space to large ($2^{128}$)
- Good list of responsive addresses required
  - Deterministic
  - Unbiased

Reverse DNS:
- Part of DNS
  - Address PTR Domain
- Addresses represented as subdomains of ip6.arpa.
  - 1080::8:800:200c:417a
  - a.7.1.4.c.0.0.2.0.8.0.0.0.0.0.0.0.0.0.0.0.0.0.8.0.1.ip6.arpa.

**GoDNS Extension**

Problems:
- Nameservers might be inconsistent
- Small set of nameservers responsible for rDNS

Solution: GoDNS
- Scanner developed at our Chair
- Queries all authoritative nameservers
- Completely resolves dependencies
- Drawback:
  - Increased amount of queries
  - Increased scan time

Experiences from Scans over several Weeks:
- Number of queries: 1.4 B
- Scan duration: 7 d - 9 d

**Address Responsiveness**

Measured with IPv6 Hitlist Service [3]:

<table>
<thead>
<tr>
<th>Time</th>
<th>Added Addresses</th>
<th>Responsive Addresses</th>
</tr>
</thead>
<tbody>
<tr>
<td>18.02</td>
<td>+4.85 M</td>
<td>+1.54 M +0.77 M +0.76 M</td>
</tr>
<tr>
<td>19.04</td>
<td>+0.77 M</td>
<td></td>
</tr>
<tr>
<td>09.05</td>
<td>+0.76 M</td>
<td></td>
</tr>
</tbody>
</table>

**Future Work**

Setup Regular Pipeline
- Pipeline broke in May
- Interruption during transition from Master to Research Assistant
- Reestablished pipeline started slowly

Improve Scans
- Reduce number of queries and scan duration
- Improve stability
- Reduce output (logs + data)

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