

Tools and Data for IPv6 Research

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Tools and data for IPv4 research are well understood

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But what about

- Large-scale port scanning in IPv6?

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Large-scale port scanning in IPv6

- ZMapv6: Extended ZMap with IPv6 capabilities
- Get it at <https://github.com/tumi8/zmap>

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Stateless tracerouting in IPv6

- yarrp: Stateless IPv6{4,6} traceroute tool → avoids rate-limiting
- Get it at <https://www.cmand.org/yarrp>

Visualizing prefixes using Hilbert space-filling curves

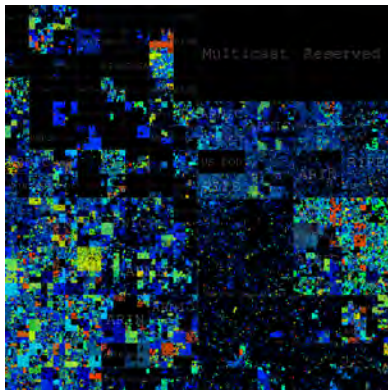


Figure 1: IPv4

Visualizing prefixes using Hilbert space-filling curves

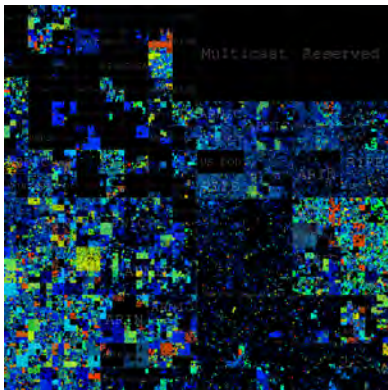


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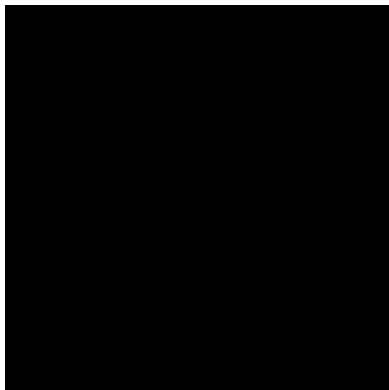
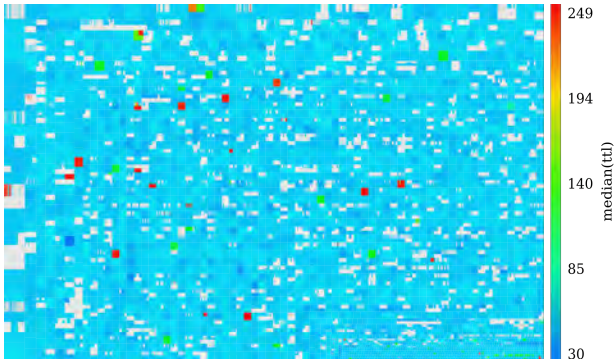


Figure 2: IPv6

Figures by Ben Cartwright-Cox <https://blog.benjojo.co.uk/post/scan-ping-the-internet-hilbert-curve>

zesplot: Visualizing IPv6 prefixes using squarified treemaps



Get it at <https://github.com/zesplot/zesplot>

IPv6 Targets

IPv4: Brute-force 0/0 approach

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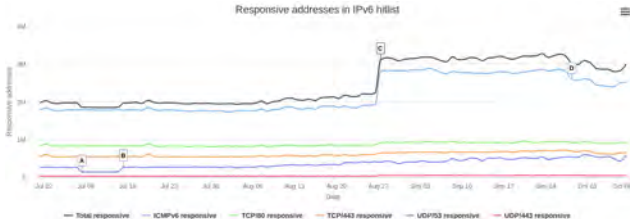
IPv6: Brute-force approach infeasible

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IPv4: Brute-force 0/0 approach

IPv6: Brute-force approach infeasible

ipv6hitlist.github.io

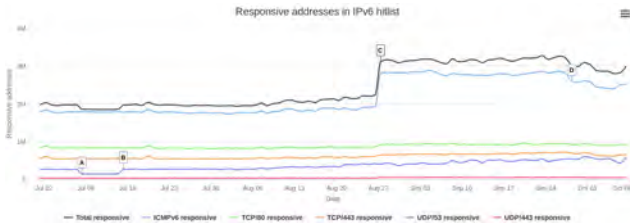


IPv6 Targets

IPv4: Brute-force 0/0 approach

IPv6: Brute-force approach infeasible

ipv6hitlist.github.io



- Download daily list of hitlist addresses
- Download daily IPv6 hitlist with responsive addresses
- Download daily list of aliased prefixes

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