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IPv6 Alias Resolution

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Monterey, California: Naval Postgraduate School.

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IPv6 Alias Resolution

What:

> The Too-Big Trick (TBT) is a technique for IPv6 alias resolution via induced router fragmentation. Our work is detailed in a research paper that is currently under submission; please contact us for details or more information.

Why:

> Alias resolution, the process of determining the set of interfaces corresponding to the same physical router, is a funamental requirement to accurately determine router-level network topologies (and, by extension, understand their security, robustness, and resilience properties). Many traditional methods for IPv4 alias resolution do not work for IPv6. Our technique provides a new and novel technique for IPv6 that is both reliable and widely applicable.

Who:

- Billy Brinkmeyer (NPS)
- kc claffy (CAIDA)
- Matthew Luckie (CAIDA)
- Robert Beverly (NPS)
- Justin Rohrer (NPS)

Output:

- *[Speedtrap: Internet-Scale IPv6 Alias Resolution](#)* in Proceedings of the [Internet Measurement Conference (IMC) 2013](#), [LBBC13]
- *[IPv6 Alias Resolution via Induced Fragmentation](#)* in Proceedings of the [Passive and Active Measurement (PAM) 2013](#), [BBLR13]
- We have implemented TBT in a Python library and are making it available here under an MIT license. Feedback and bugfixes welcome.
- [tbt.py](tbt.py)
- The technique of PTB for IPv6 alias resolution is being added to Scamper, contact Matthew Luckie for more details.

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