

A Continuing Study of the Active IPv6 WWW Client Address Space

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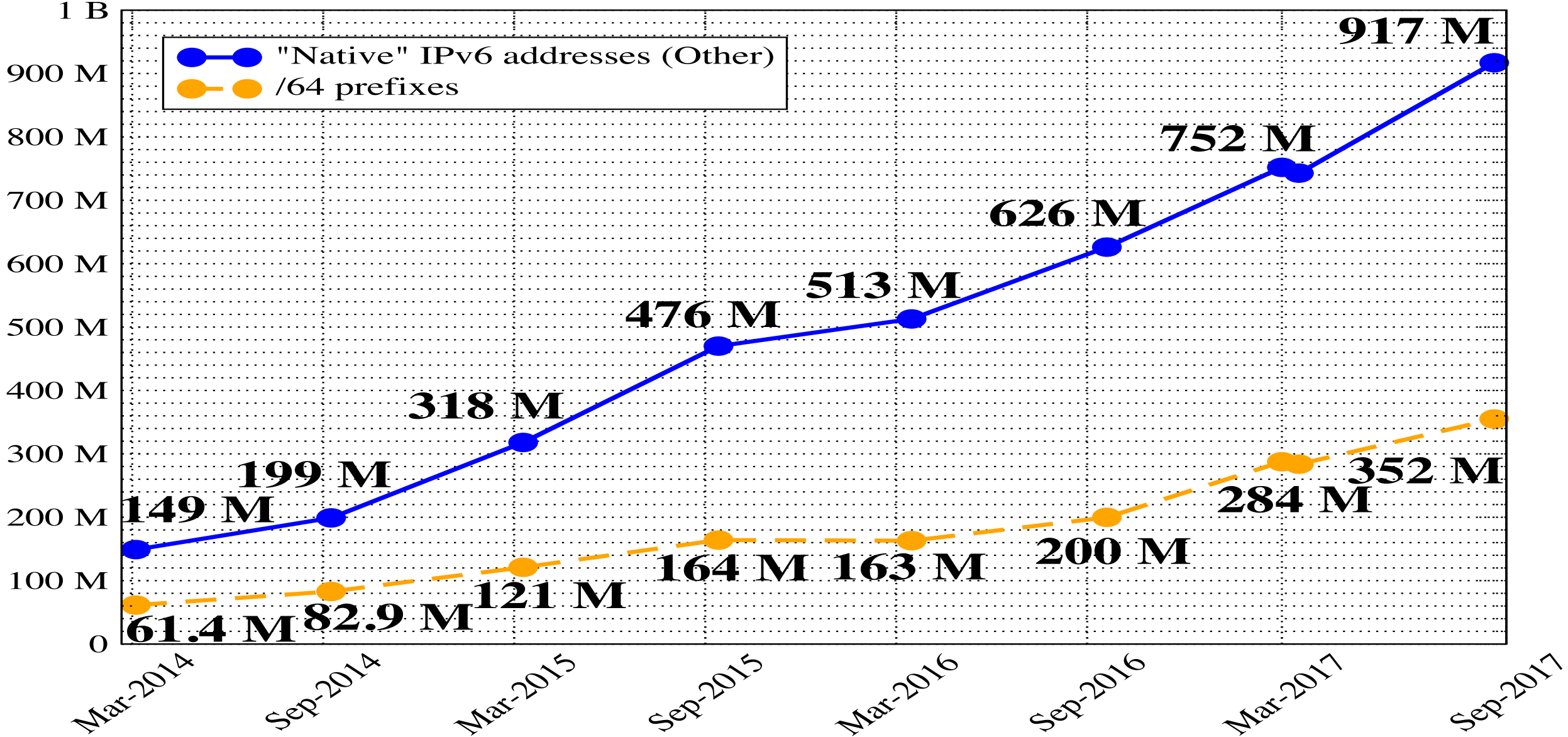
Temporal and Spatial Classification of Active IPv6 Addresses (IMC 2015)

<http://conferences2.sigcomm.org/imc/2015/papers/p509.pdf>

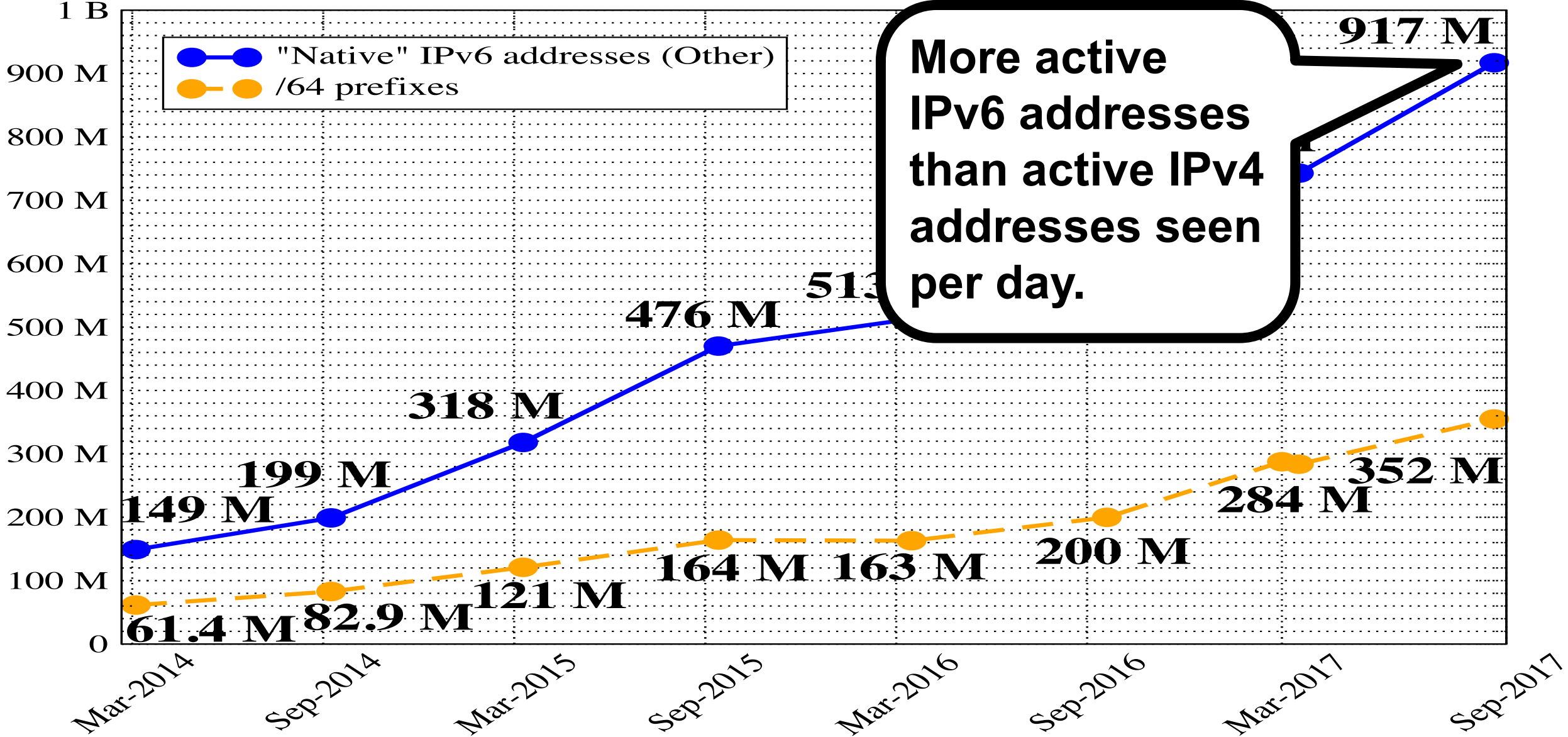
kIP: a Measured Approach to IPv6 Address Anonymization (pre-print)

<https://arxiv.org/abs/1707.03900/>

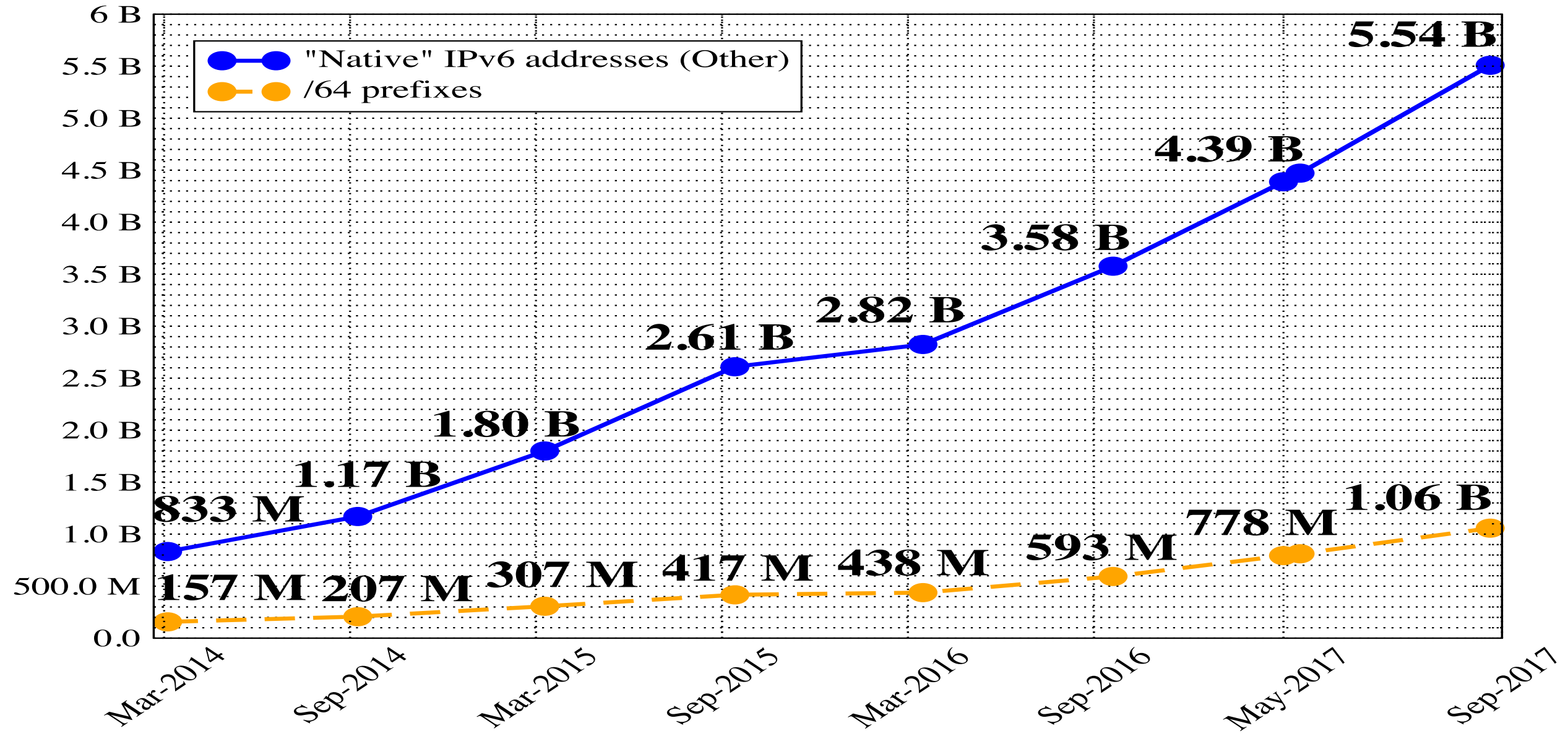
Active IPv6 WWW Client Addresses per day



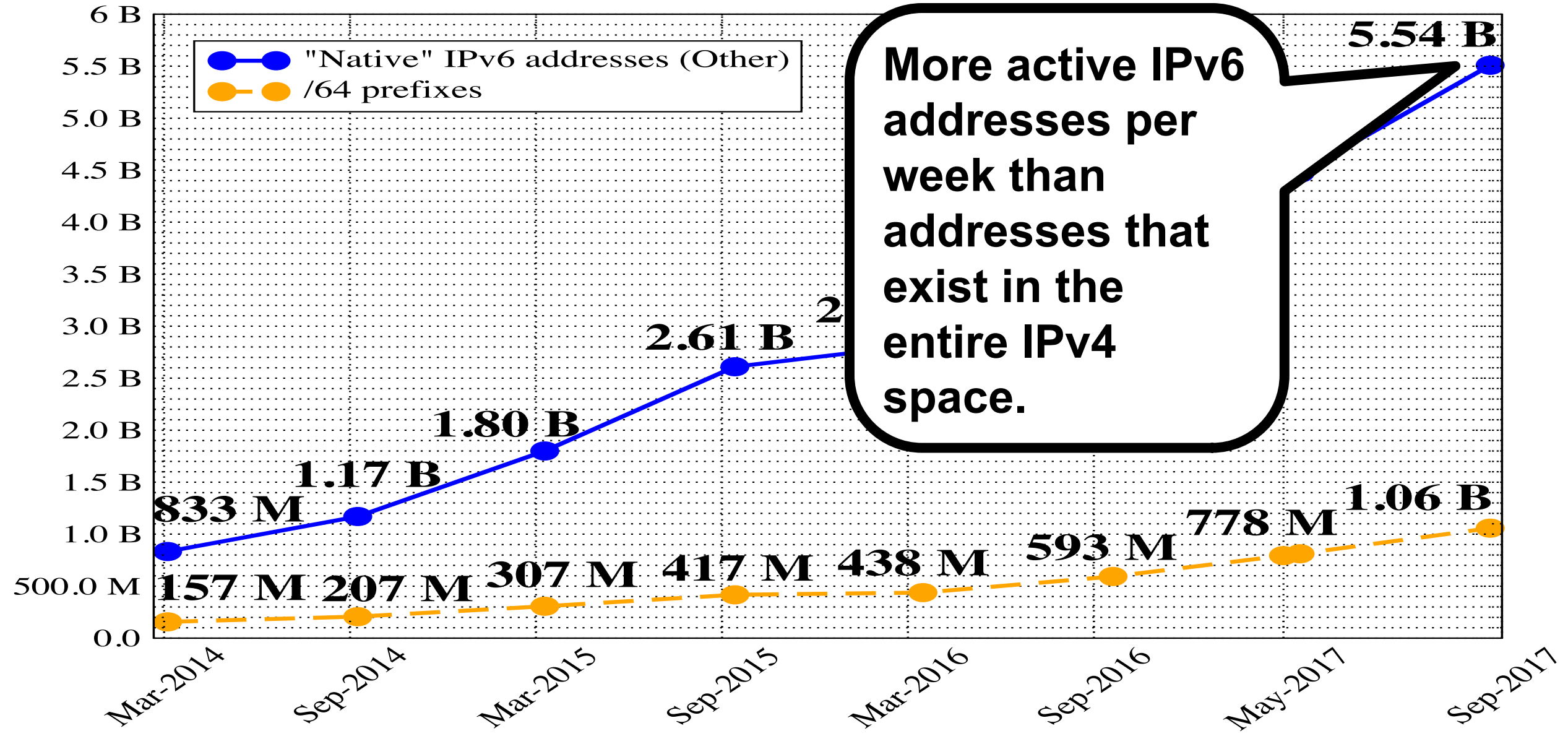
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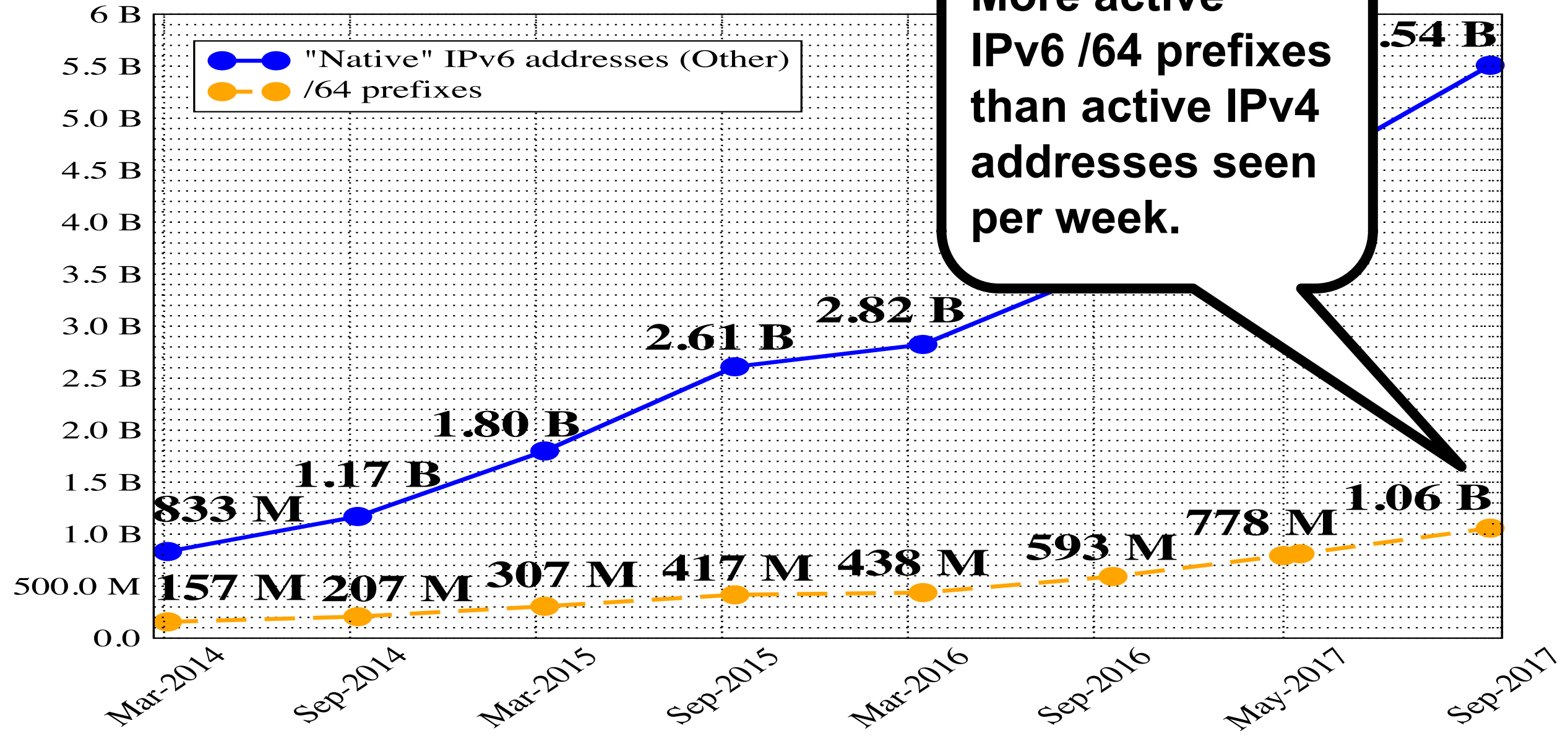
Active IPv6 WWW Client Addresses per week



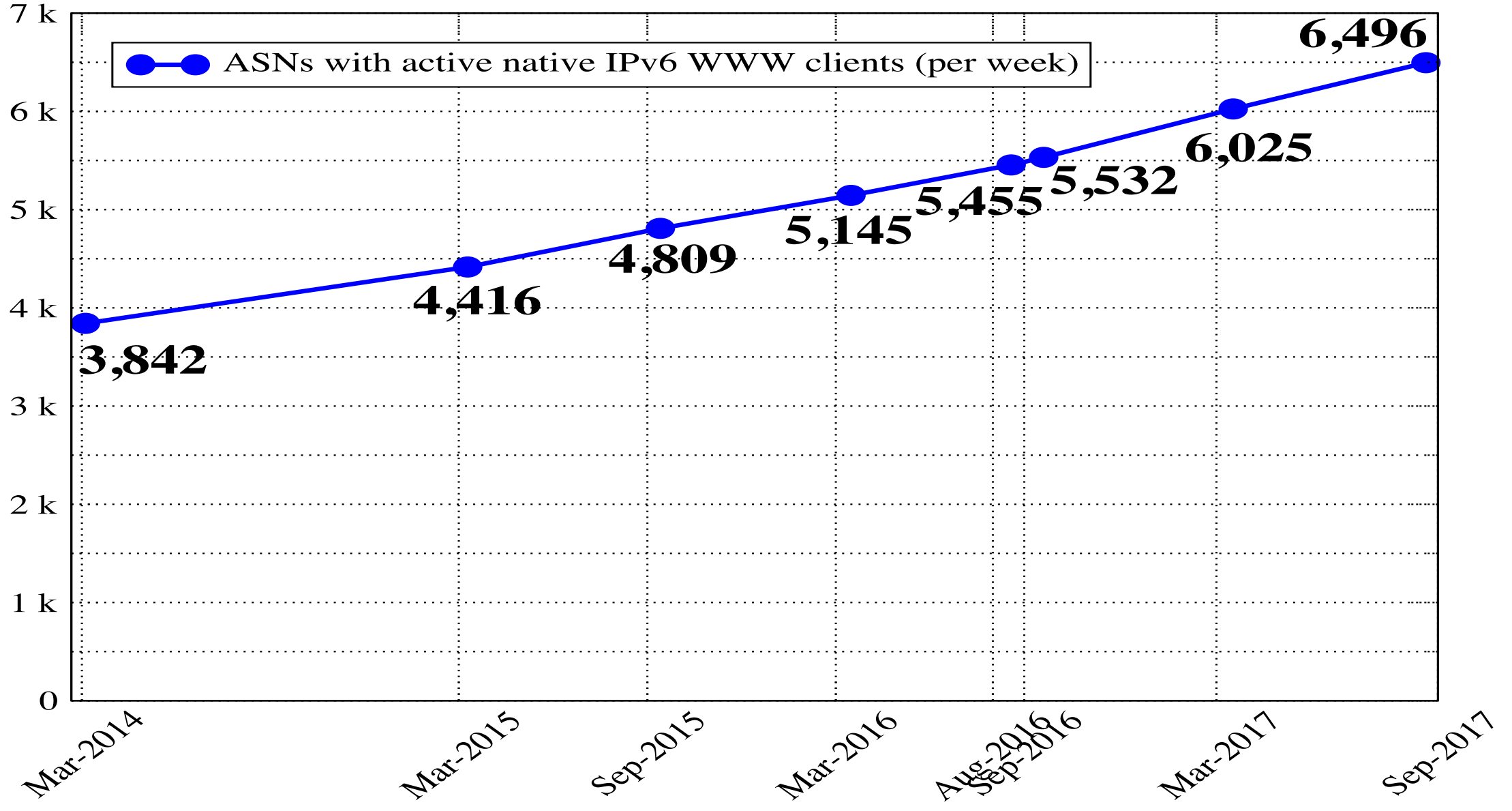
Active IPv6 WWW Client Addresses per week



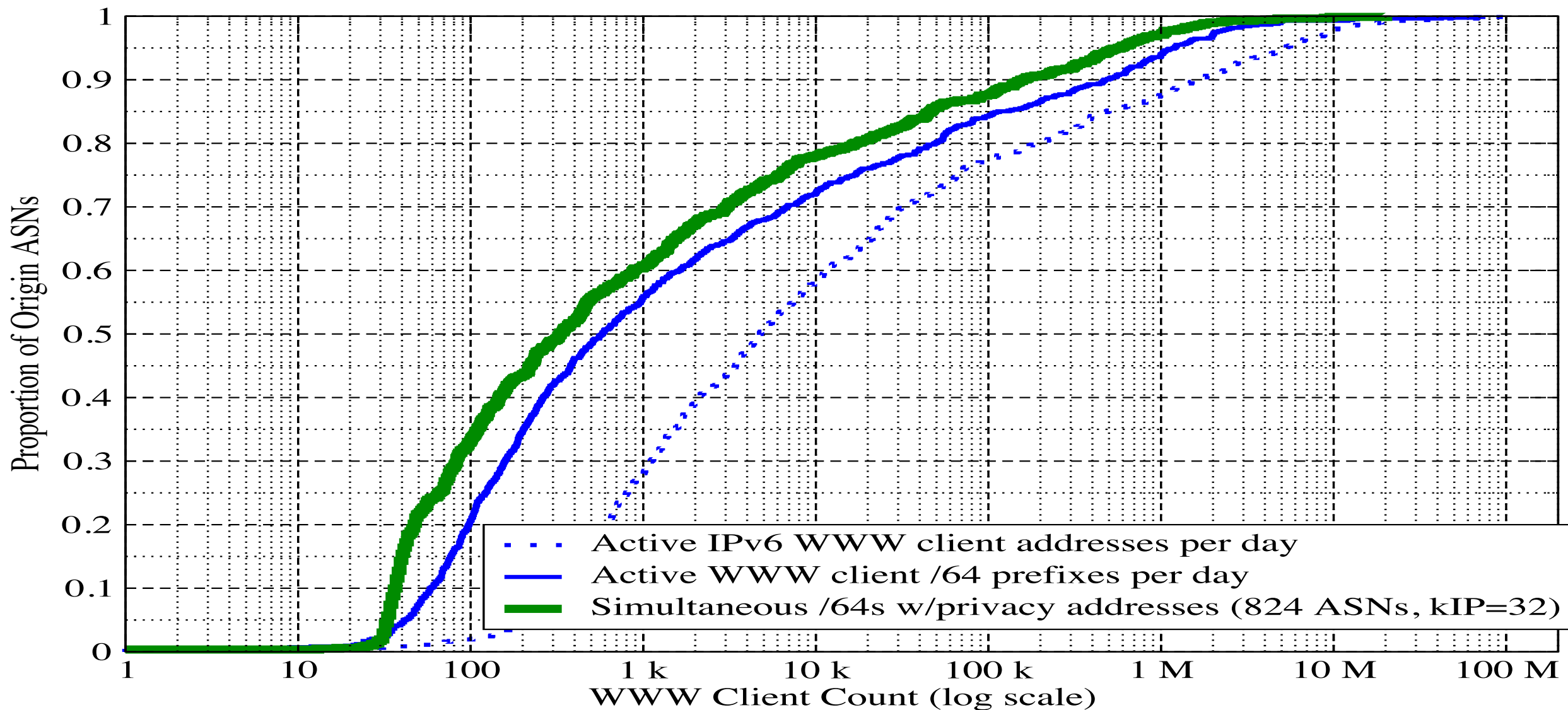
Active IPv6 WWW Client Addresses per week



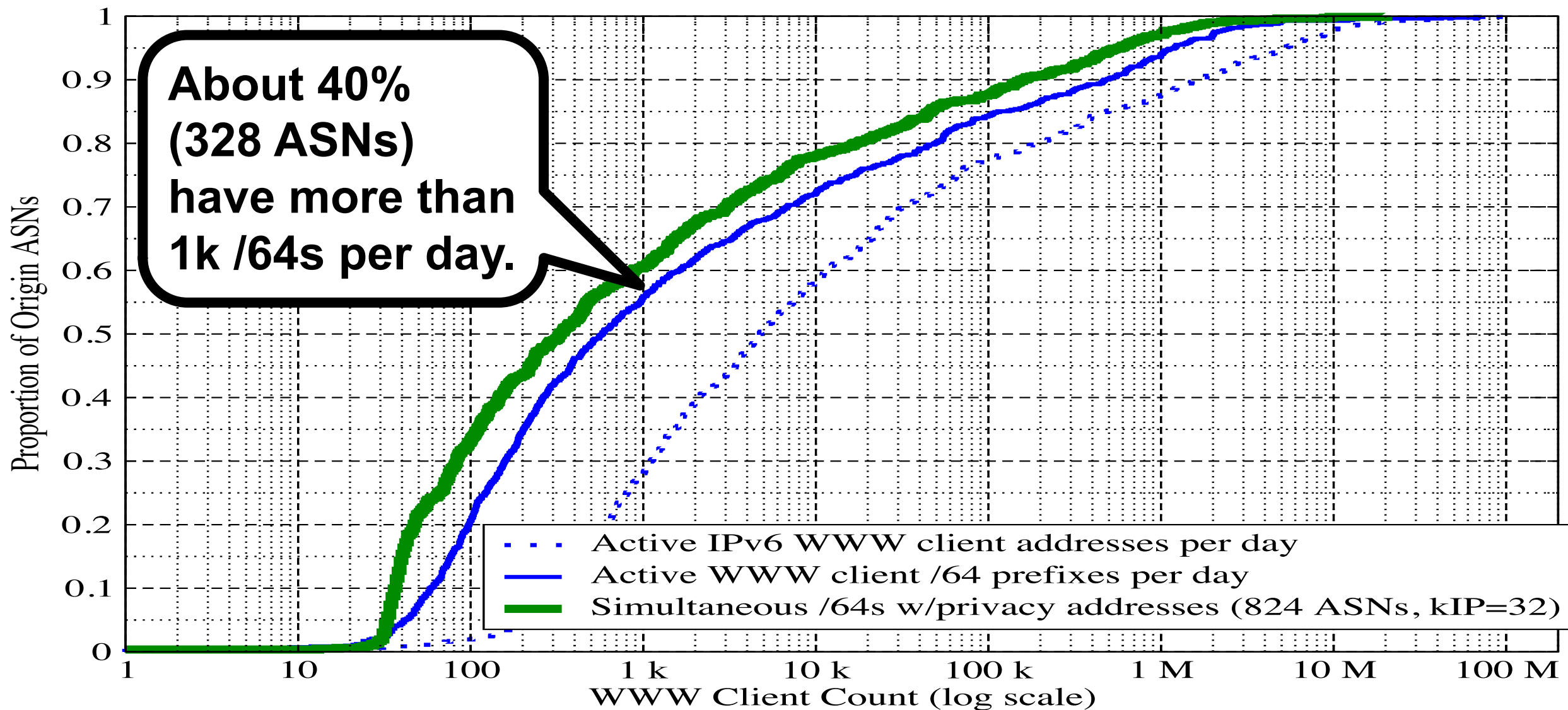
IPv6 WWW Clients' Origin ASNs: weekly counts



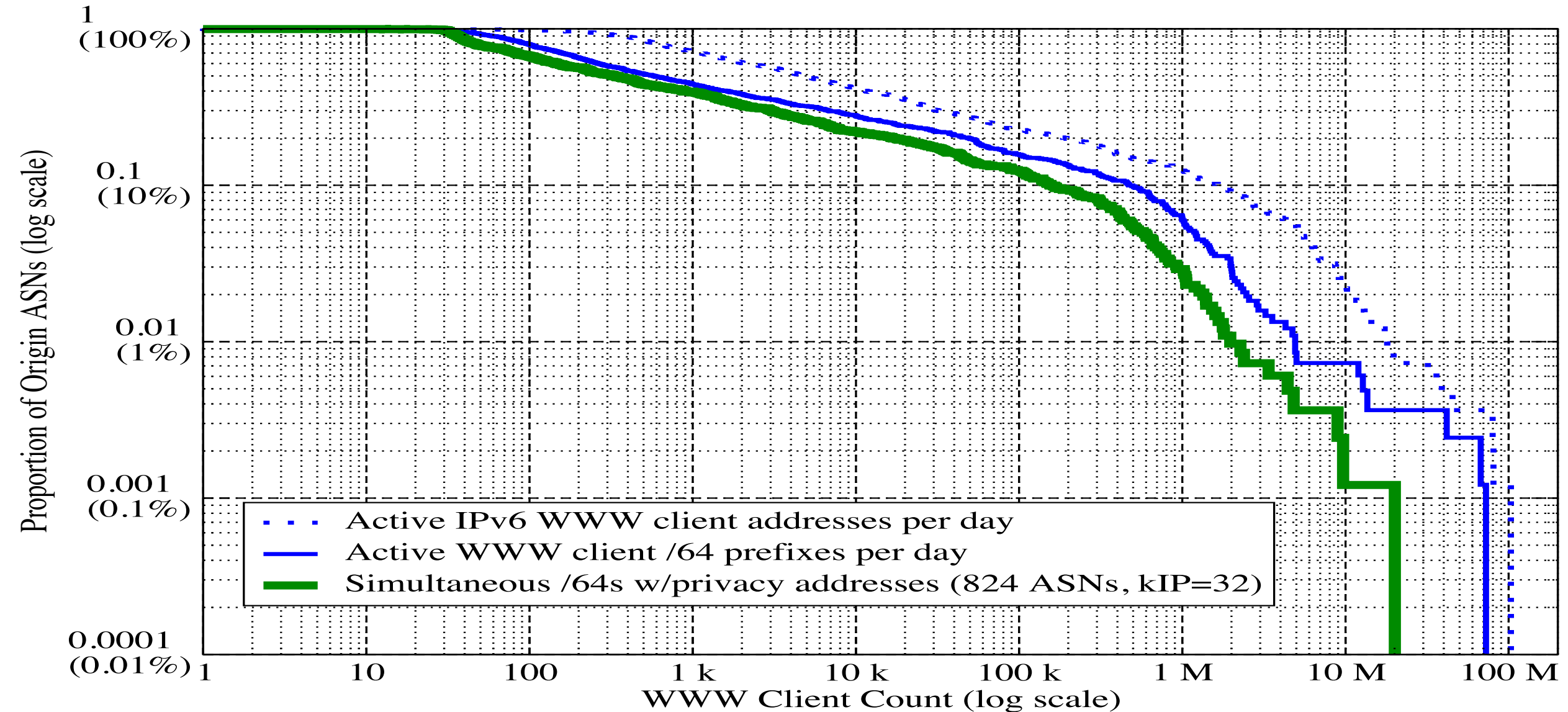
IPv6 Networks sized by Client Addresses (CDF)



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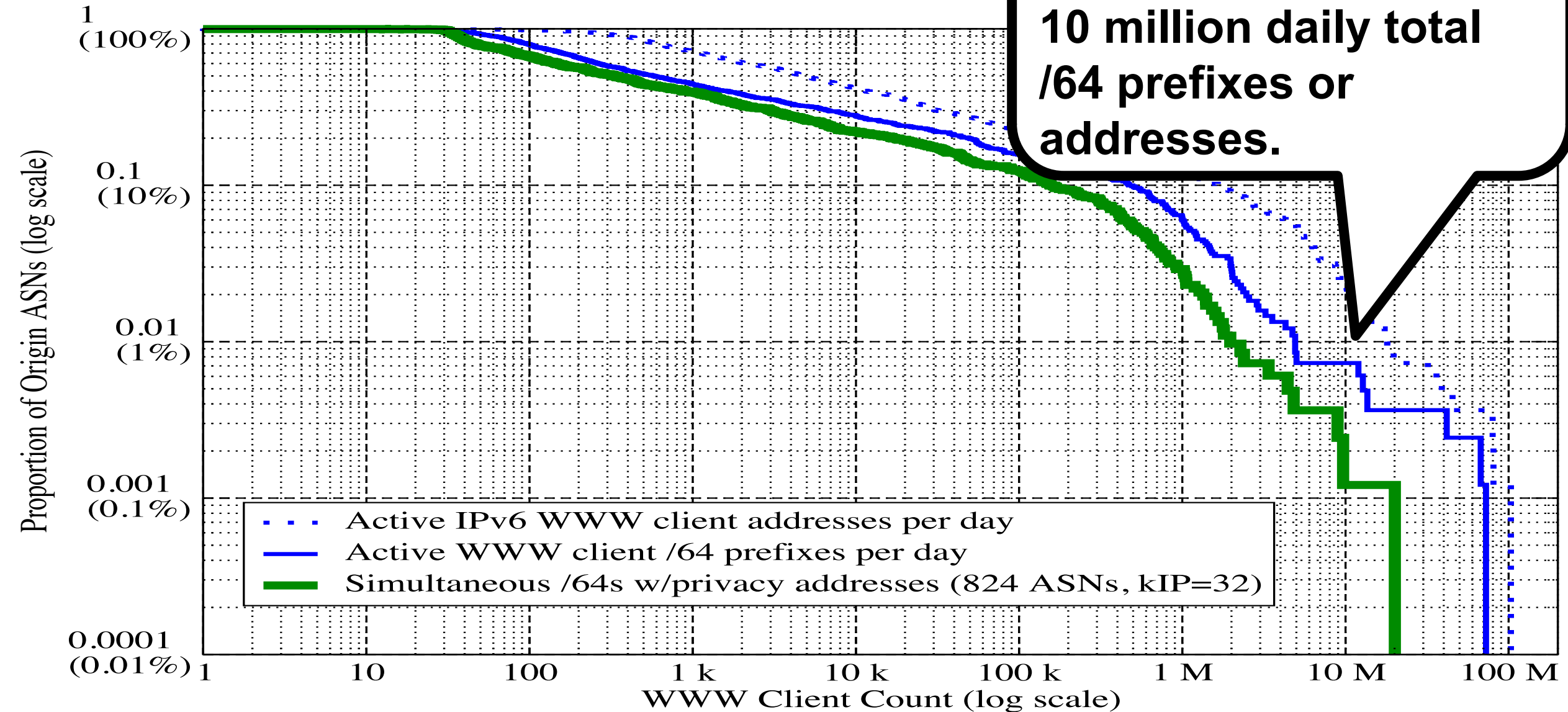


IPv6 Networks sized by Client Addresses (CCDF)



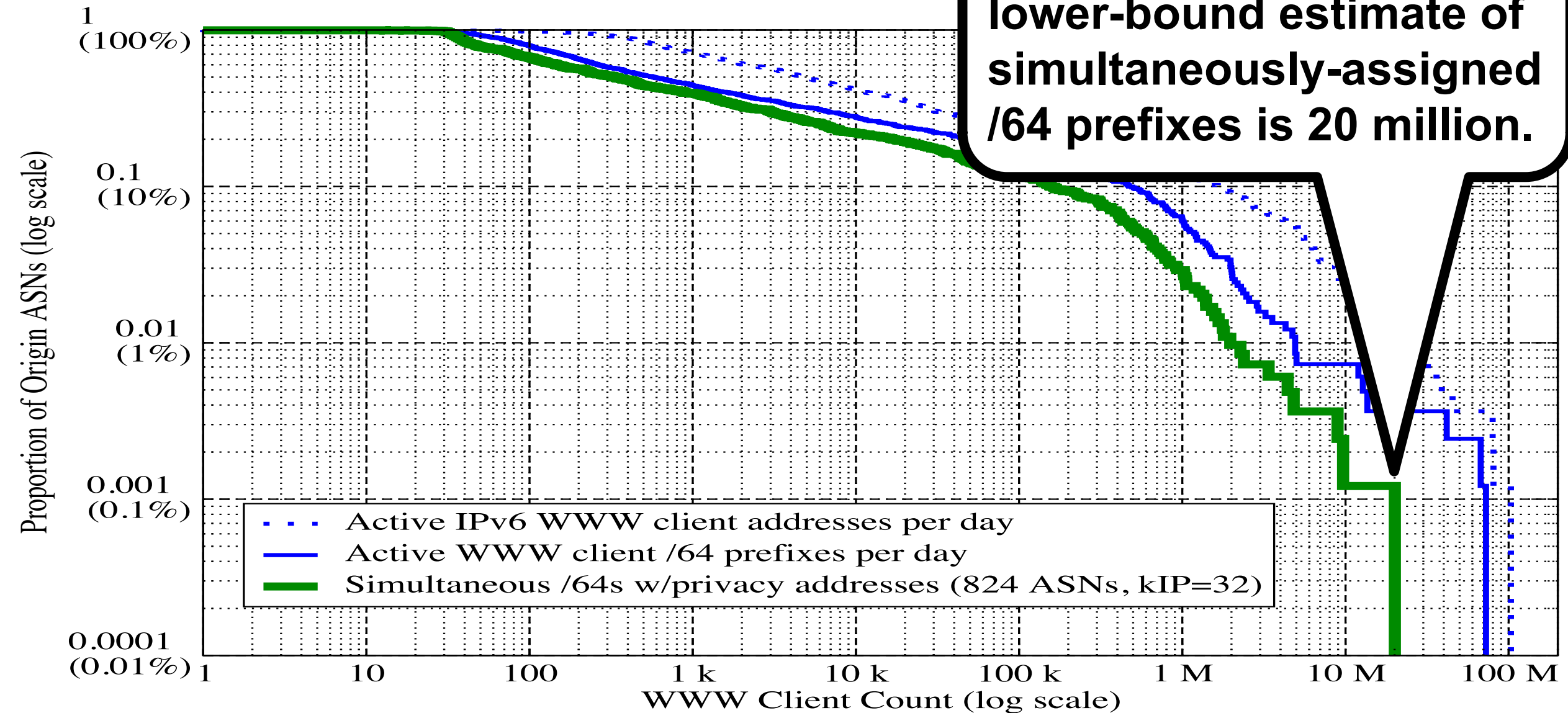
IPv6 Networks sized by Client A

About 1% (10 ASNs) have more than 10 million daily total /64 prefixes or addresses.

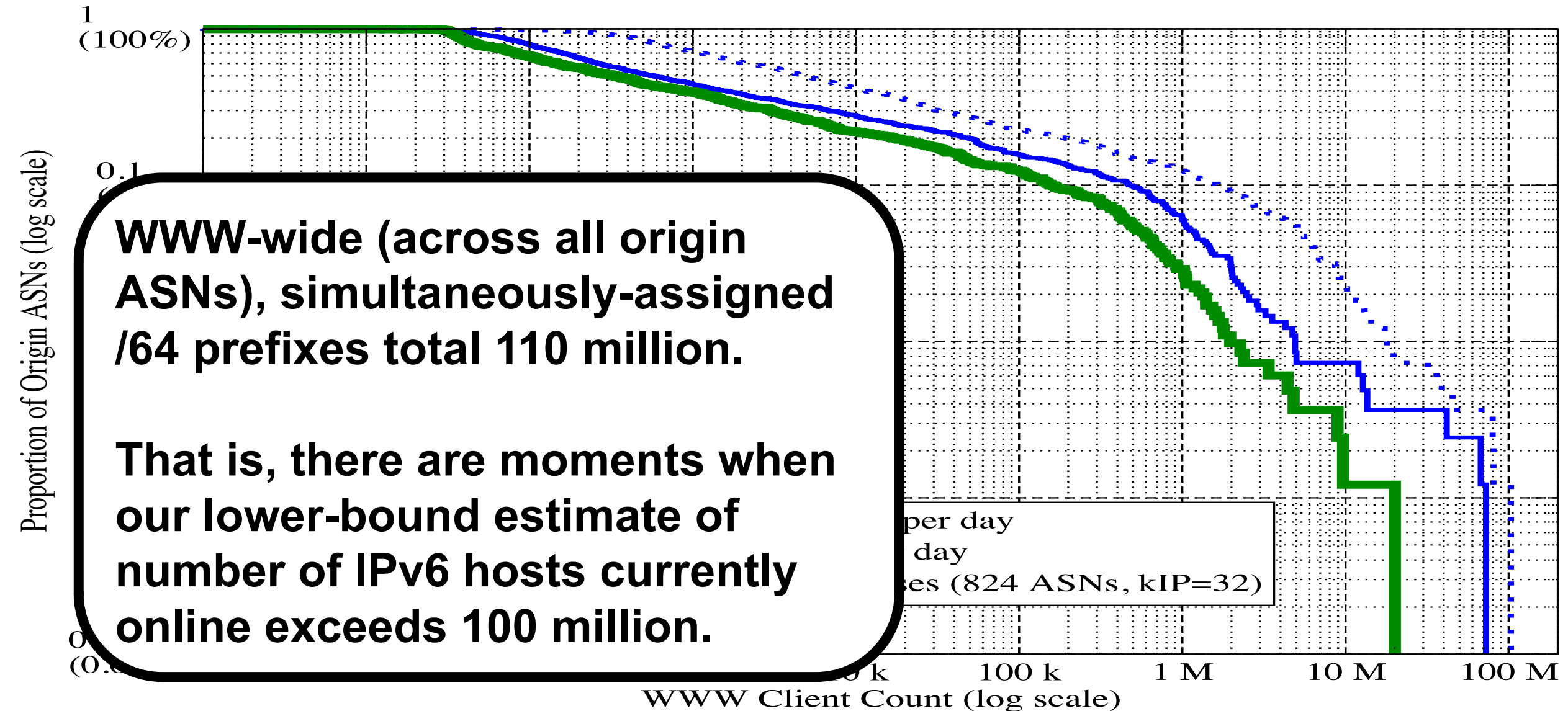


IPv6 Networks sized by Client

Per ASN, the maximum lower-bound estimate of simultaneously-assigned /64 prefixes is 20 million.



IPv6 Networks sized by Client Addresses (CCDF)



Some Take-Aways

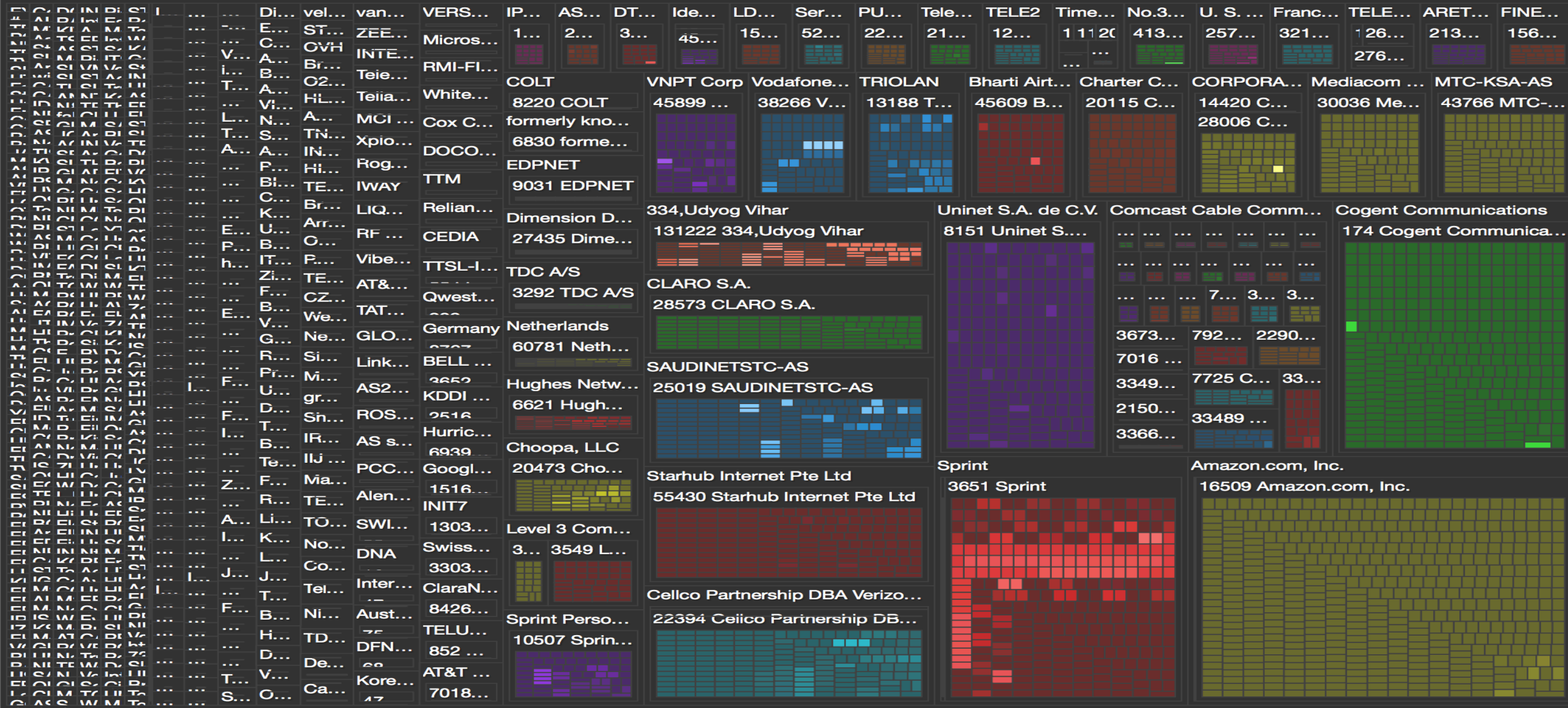
- Despite steady growth in number of IPv6-capable, many seem not to have many IPv6-capable hosts.
- A small number of networks dominate client counts
e.g., the top 1% of networks, appear to have 50% of the clients, *e.g.*, by lower-bound estimates of simultaneously-assigned /64 prefixes.
- While most IPv6 clients use temporary privacy addresses, there are millions of IPv6 clients in some networks that are *not* using privacy addresses!

Thanks! Questions?

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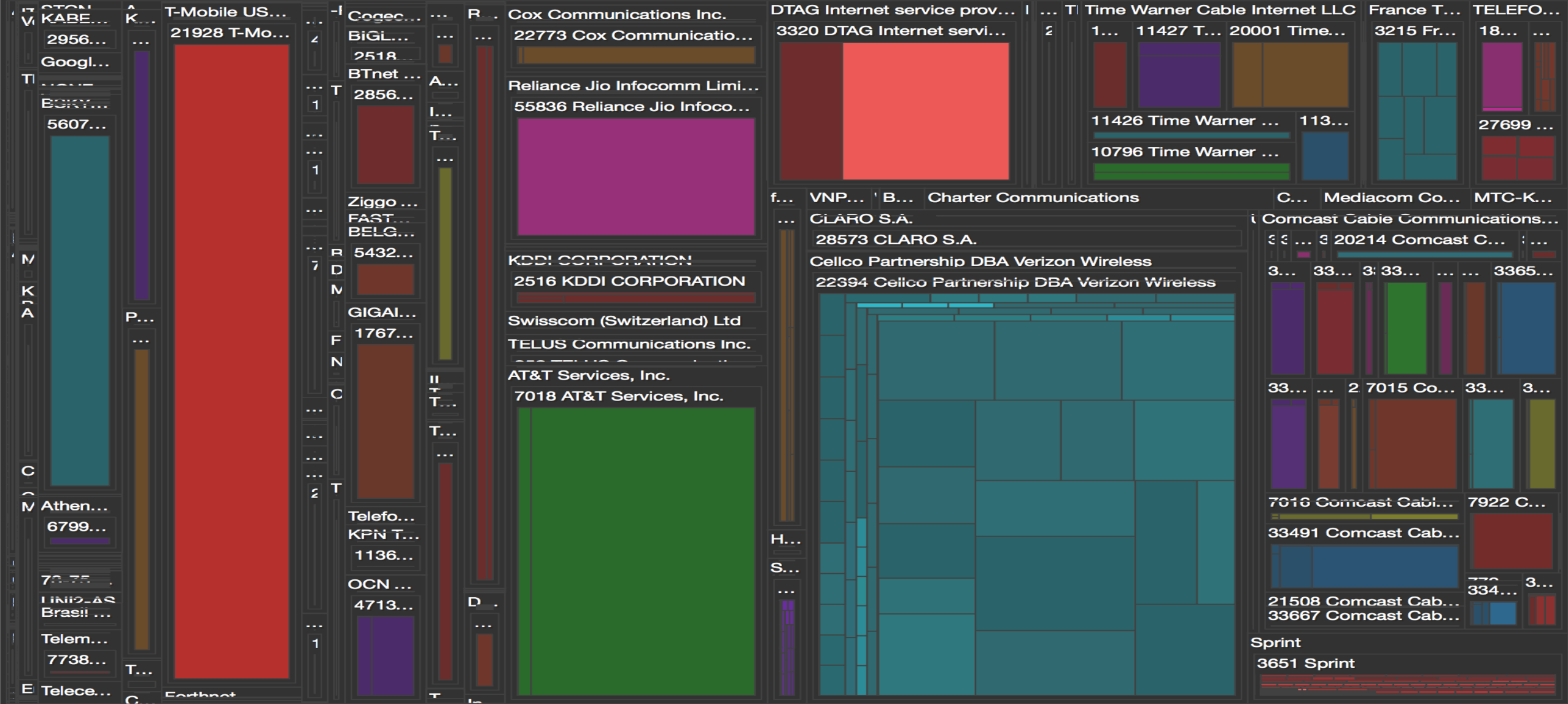
IPv6 Networks sized by Advertised Prefixes

WWW client IPv6 networks

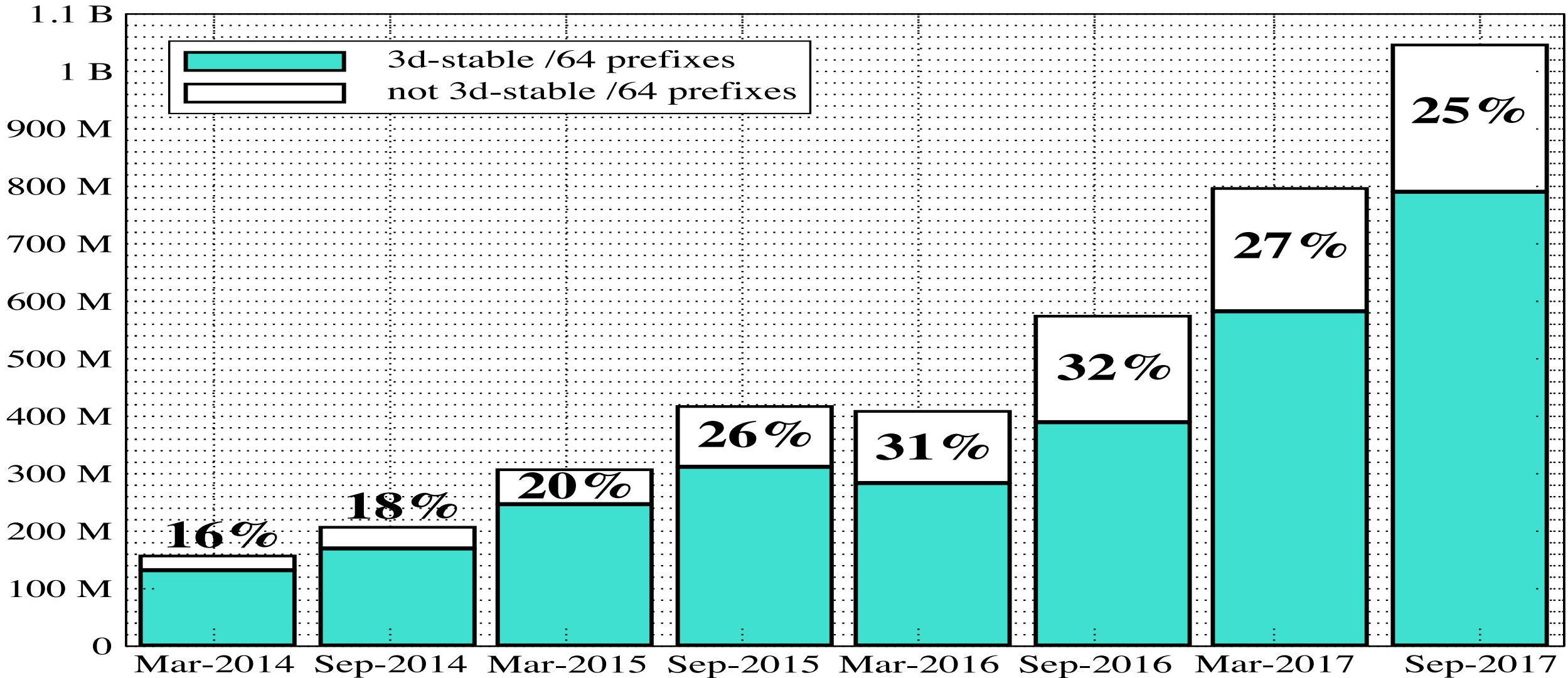


IPv6 Networks by Simultaneous /64 Client count

WWW client IPv6 networks



Active Client /64 Stability (weekly)



Active IPv6 WWW Client Addresses per week

