



83 | POLICY
FORUM



DNSSEC and Security Workshop

ICANN83

Eric Osterweil, Distinguished Scientist

09 June 2025

Program Committee

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Support

The DNSSEC Workshop and associated activities at ICANN are an organized activity of the:

- ICANN Security and Stability Advisory Committee (SSAC)



With additional assistance from the:

- Internet Society



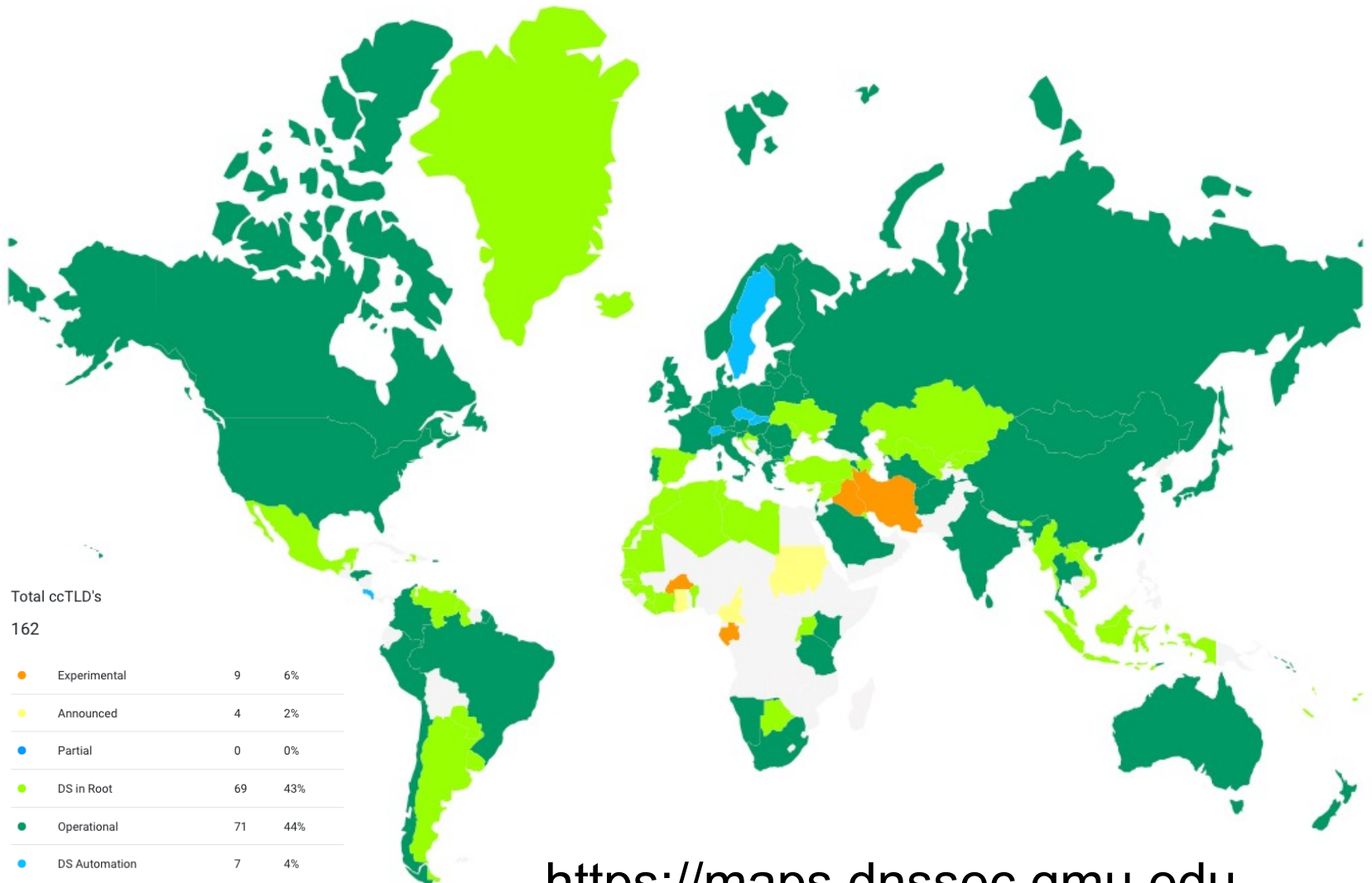
DNSSEC, DANE & RPKI Deployments Around the World

ICANN83

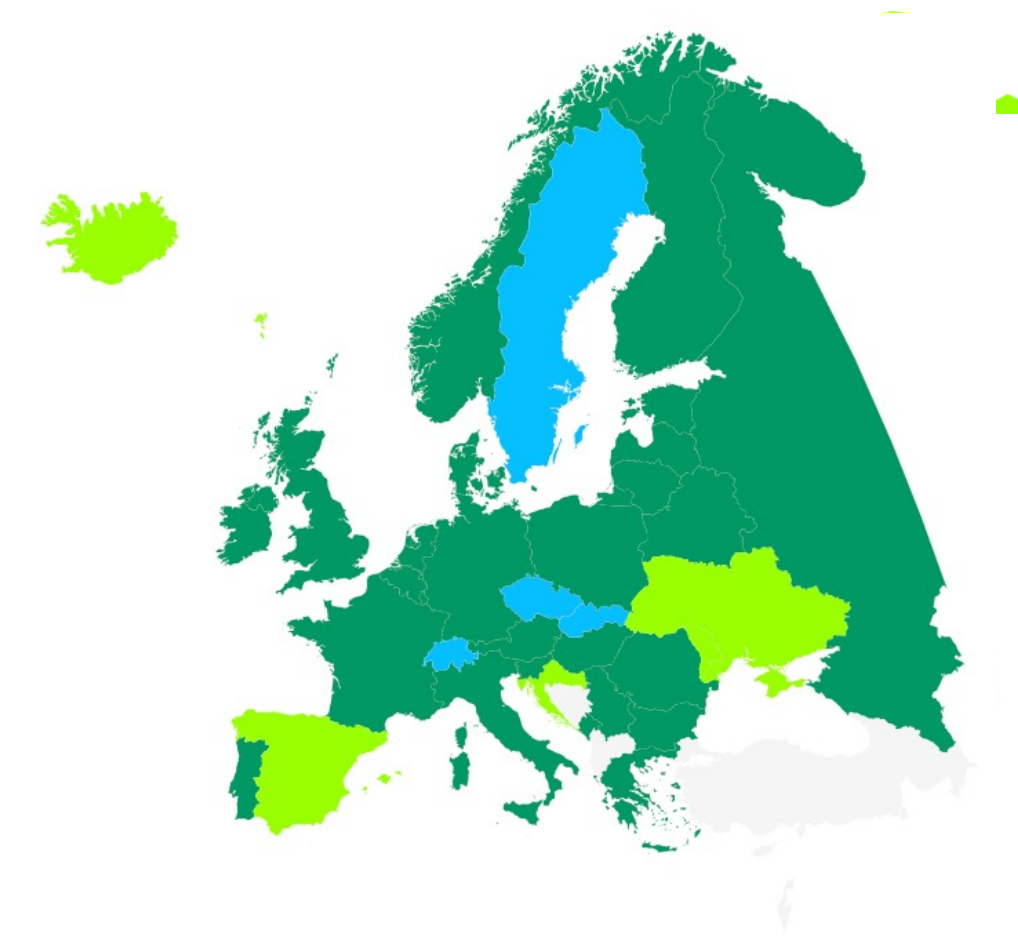
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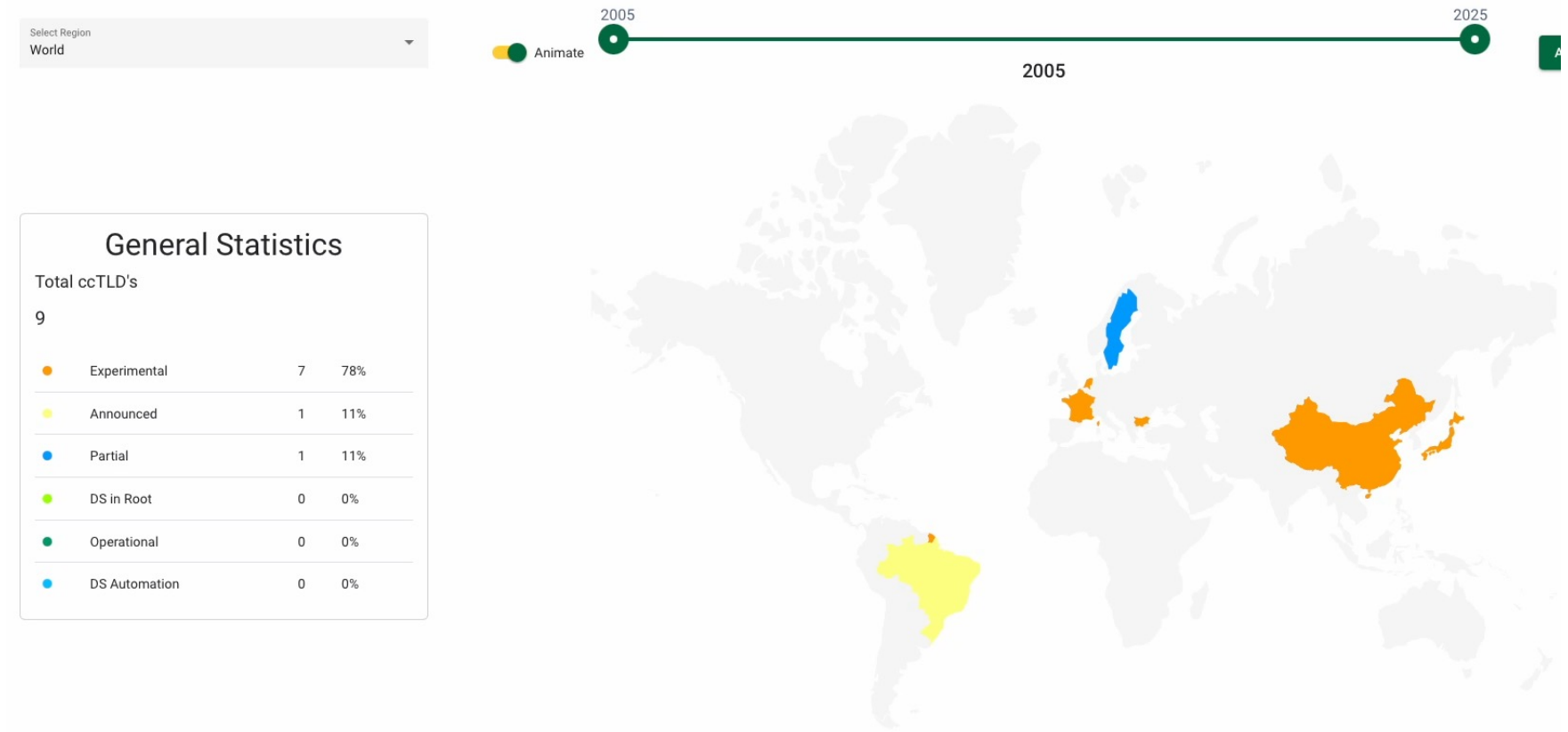
DNSSEC Deployment Maps



DNSSEC Deployment Maps



A View of Our Progress



DNSSEC Validation



<https://stats.labs.apnic.net/dnssec/XA?hc=XA&hx=0&hv=1&hp=0&hr=1&w=7>

DNSSEC Validation

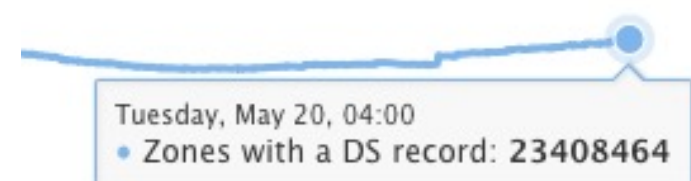
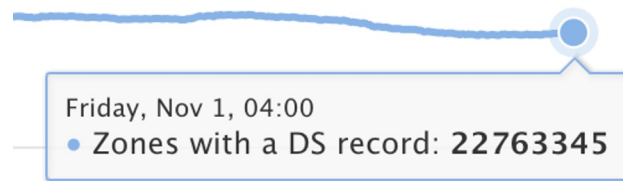
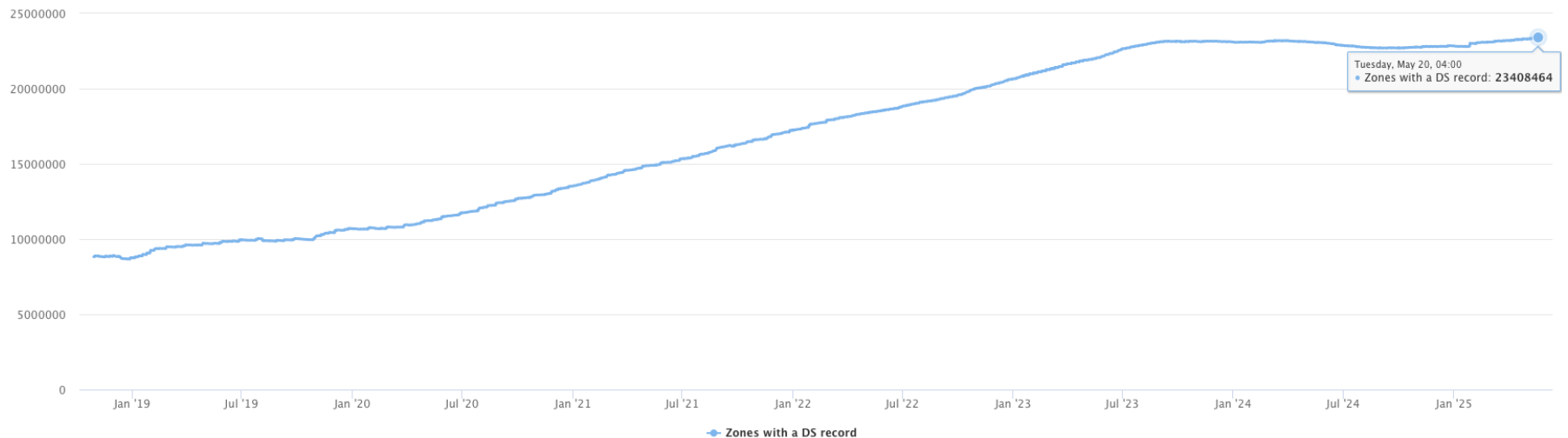
Code	Region	DNSSEC Validates	Samples	Weight	Weighted Samples
XA	World	34.84%	18,727,978	1	18,727,978
XF	Oceania	51.16%	178,831	0.78	139,827
XB	Africa	44.00%	2,469,851	0.8	1,968,626
XE	Europe	43.45%	2,021,572	1.33	2,683,011
XG	Unclassified	38.38%	39,317	0	9
XC	Americas	36.73%	4,874,928	0.69	3,349,373
XD	Asia	30.13%	9,182,779	1.15	10,587,130

Almost 4 million more samples in
May 2025 than October 2024

<https://stats.labs.apnic.net/dnssec/XA?hc=XA&hx=0&hv=1&hp=1&hr=1&w=7&p=0>

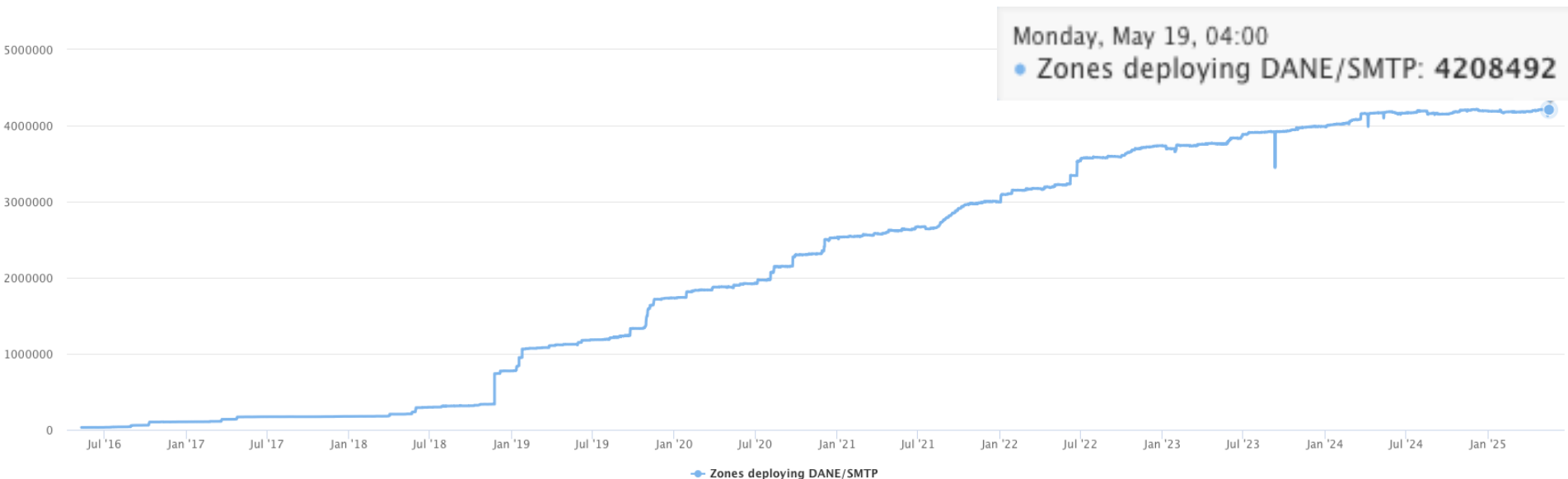
Observed DS Record Count Growth

Increase of 645,119 since November 2024
(from 11/1/2024 to 5/20/2025)



<https://stats.dnssec-tools.org/>

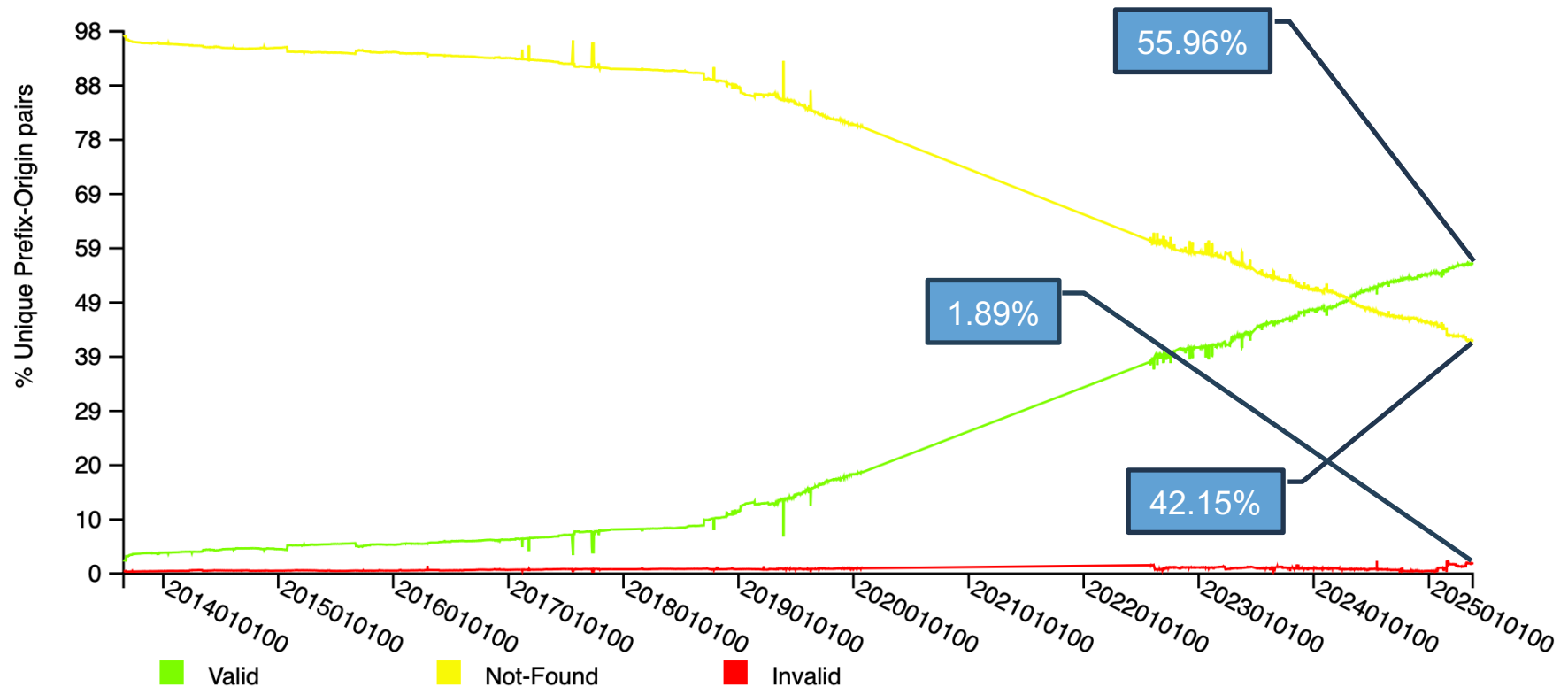
Zones with Signed MX and DANE Records



<https://stats.dnssec-tools.org/>

RPKI Global IPv4 Prefixes

RPKI-ROV History of Unique Prefix-Origin Pairs (IPv4)



NIST RPKI Monitor: RPKI-ROV Analysis

Protocol: IPv4

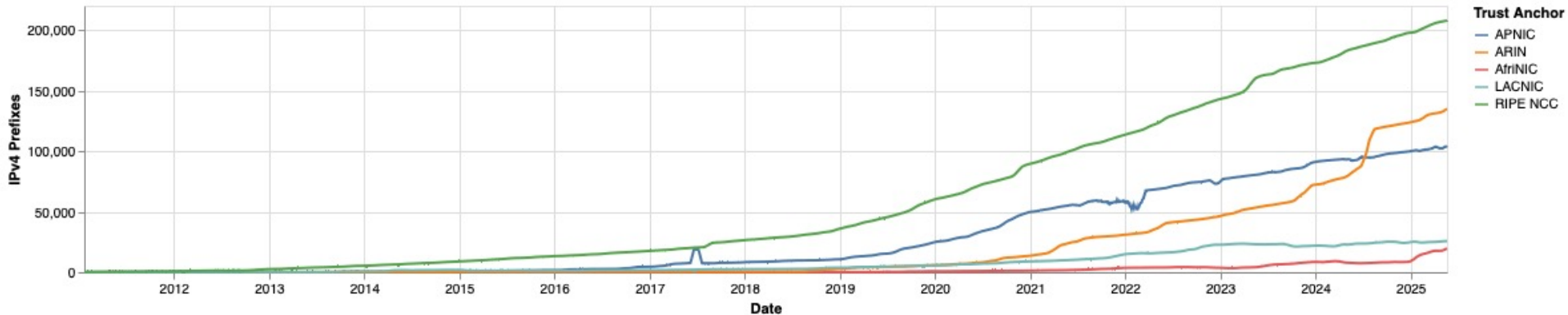
RIR: All

URL: <https://rpki-monitor.antd.nist.gov/ROV#div2>

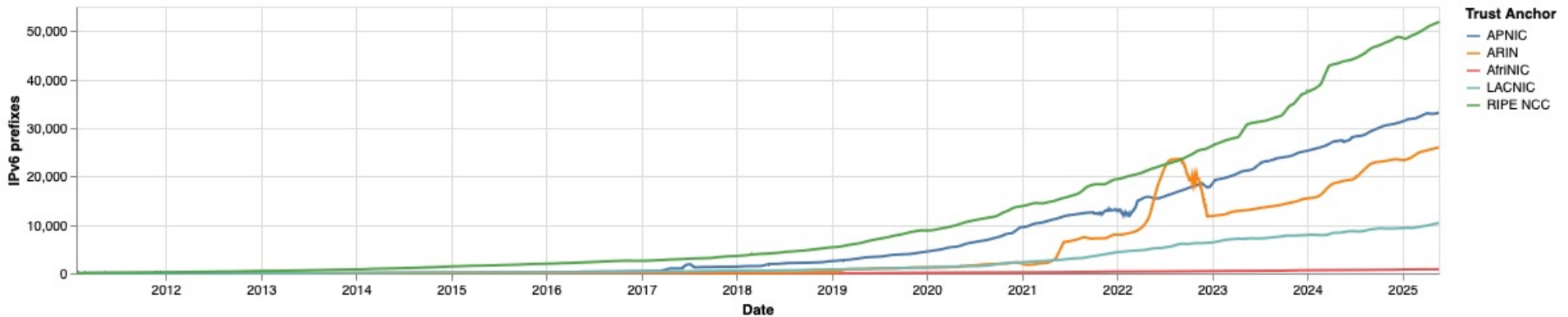
<https://rpki-monitor.antd.nist.gov/>

Prefixes by RPKI ROAs, by RIR

IPv4 prefixes in ROAs



IPv6 prefixes in ROAs



<https://certification-stats.ripe.net/>

Questions?

Resources

DNSSEC

- <https://inso.gmu.edu/>
- <https://maps.dnssec.gmu.edu>
- <https://www.dnssec-tools.org>
- <https://stats.dnssec-tools.org>
- <https://stats.labs.apnic.net/dnssec>
- <https://secspider.net>

RPKI

- <https://rpki-monitor.antd.nist.gov>
- <https://certification-stats.ripe.net>
- <https://www.securerouting.net>



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