



81

ANNUAL
GENERAL
MEETING

DNSSEC and Security Workshop ICANN81 Wednesday, 13 November 2024



DNSSEC and Security Workshop

ICANN81

Eric Osterweil

13 November 2024



Program Committee

- Gautam Akiwate,
- Steve Crocker, Shinkuro
- Mark Elkins
- Jacques Latour, CIRA
- Russ Mundy, Parsons
- Ram Mohan, Digital Identity
- Yoshiro Yoneya
- Dan York, Internet Society
- Kimberly Carlson and Kathy Schnitt, ICANN Org

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

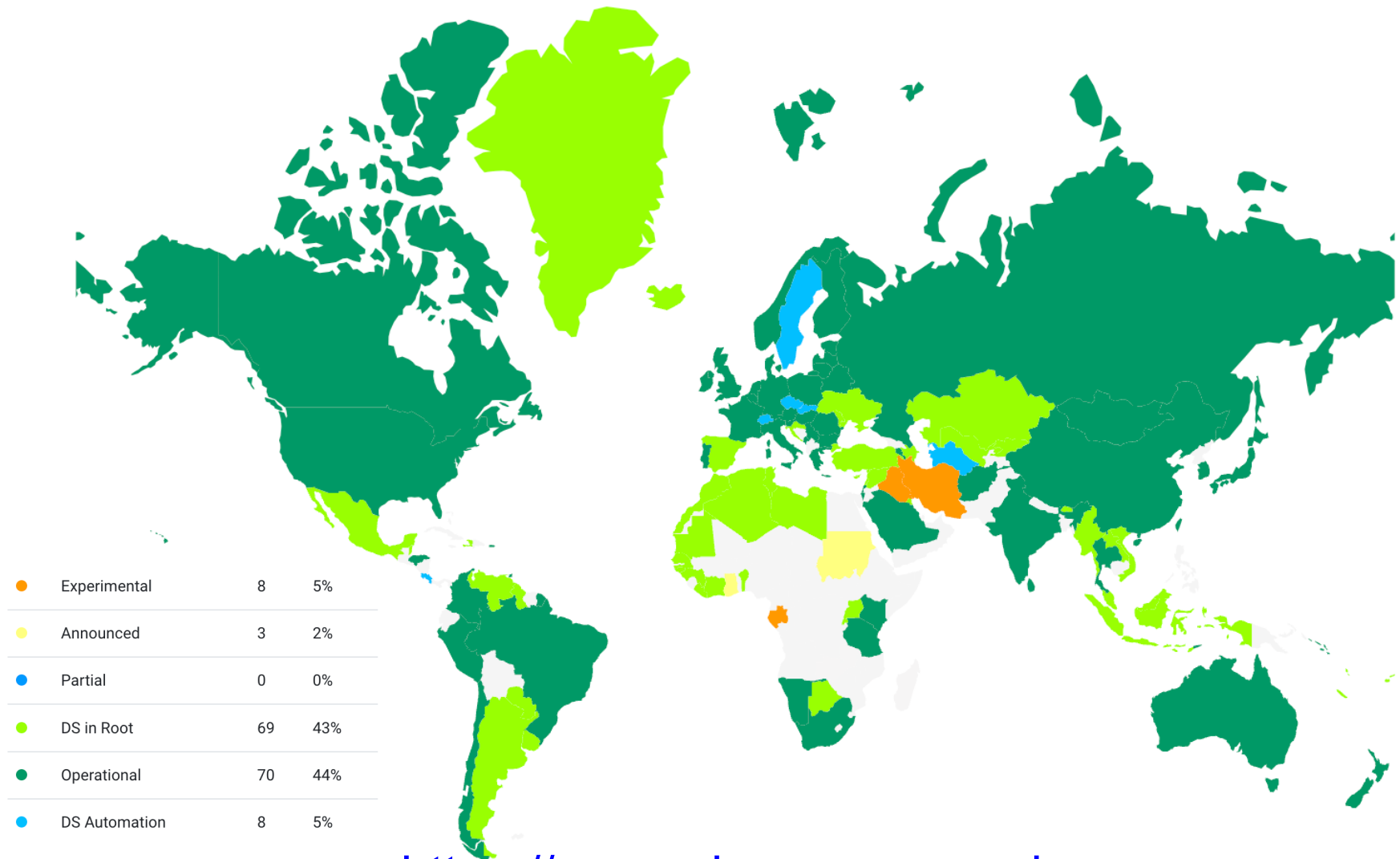
ICANN8081

Eric Osterweil

13 November 2024

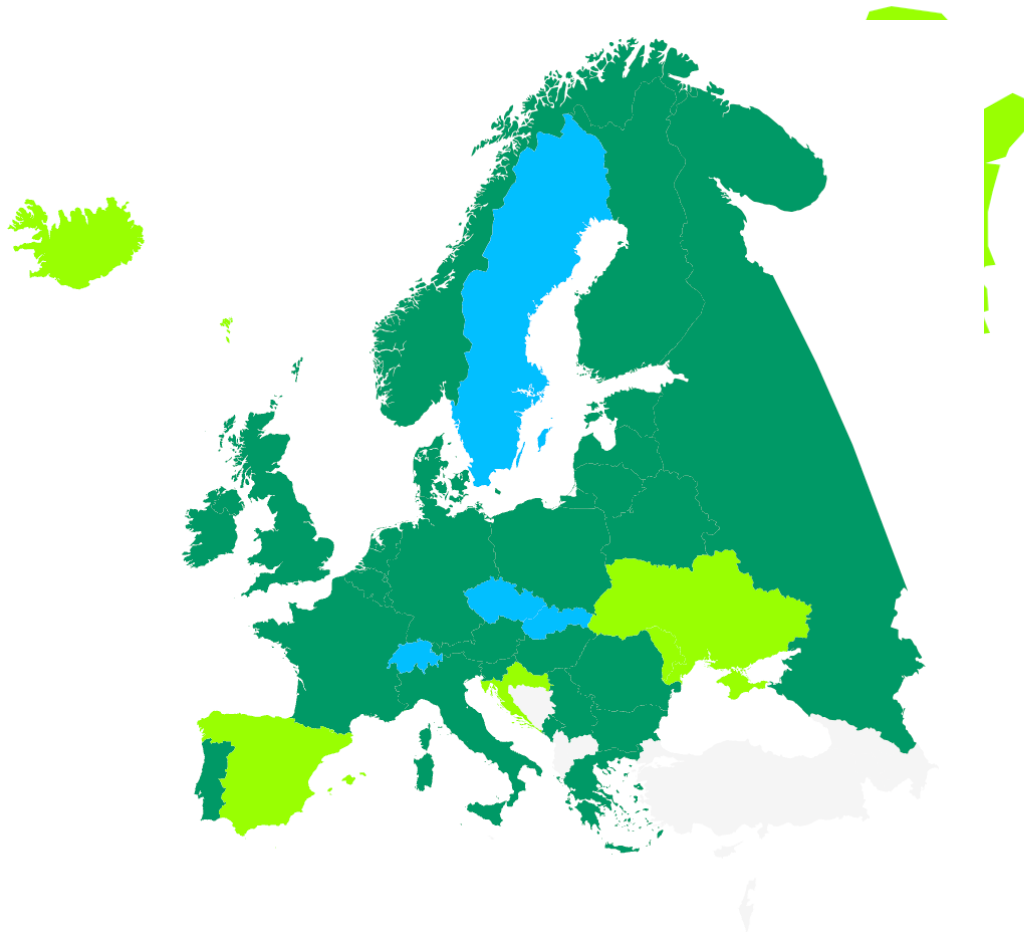


DNSSEC Deployment Maps



<https://maps.dnssec.gmu.edu>

DNSSEC Deployment Maps



Select Region
World

General Statistics

Total ccTLD's

160

Experimental	8	5%
Announced	3	2%
Partial	0	0%
DS in Root	69	43%
Operational	70	44%
DS Automation	8	5%



DNSSEC Validation

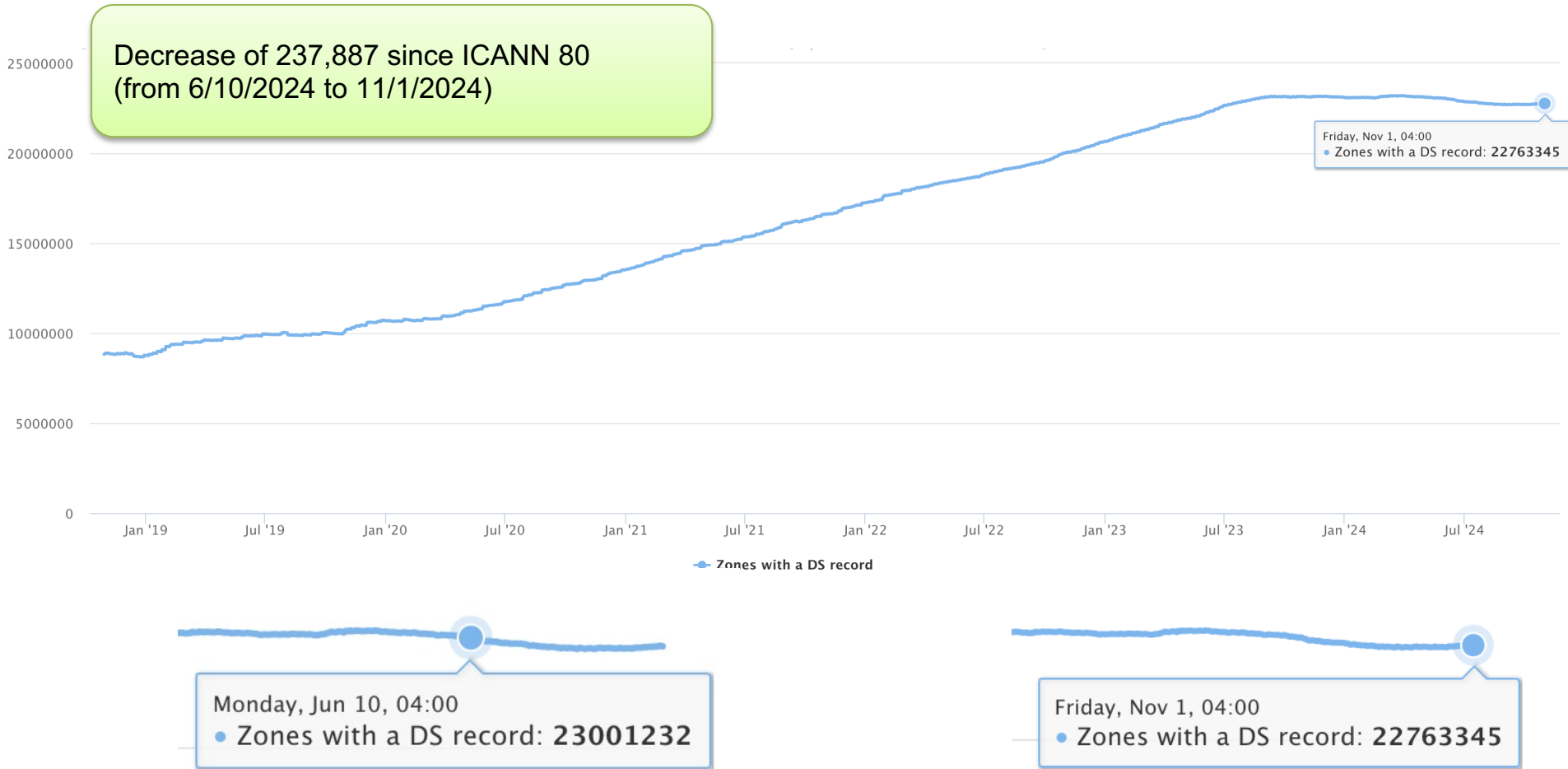
34.89%, as of
October 24th



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

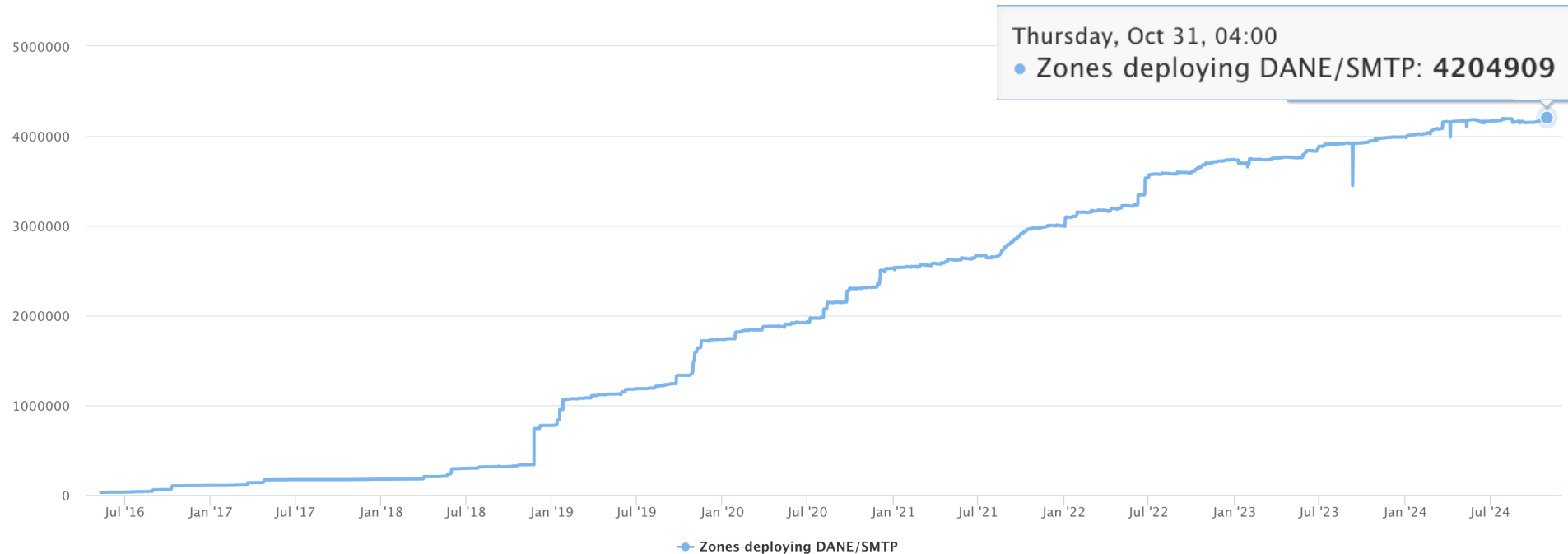
Code	Region	DNSSEC Validates	Samples	Weight	Weighted Samples
XA	World	35.45%	14,751,137	1	14,751,137
XF	Oceania	45.21%	89,938	1.22	109,275
XE	Europe	44.90%	1,979,079	1.08	2,138,176
XB	Africa	40.69%	1,176,937	1.28	1,512,086
XC	Americas	36.10%	3,376,154	0.78	2,635,926
XD	Asia	31.75%	8,128,956	1.03	8,355,352
XG	Unclassified	4.65%	65,927	0	319

Observed DS Record Count Growth



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

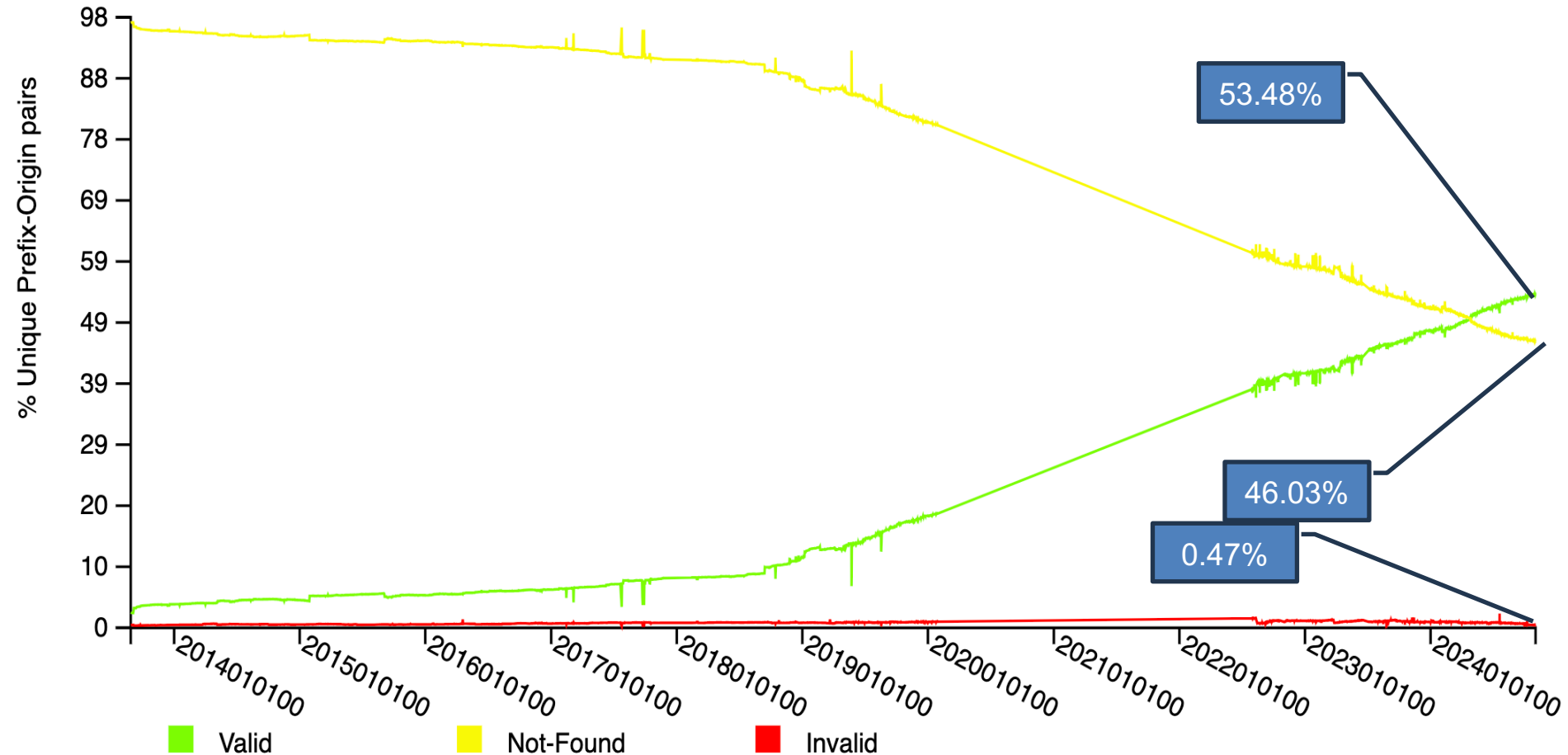
Domains with signed MX and DANE records



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

RPKI Global IPv4 Prefixes

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



NIST RPKI Monitor: RPKI-ROV Analysis

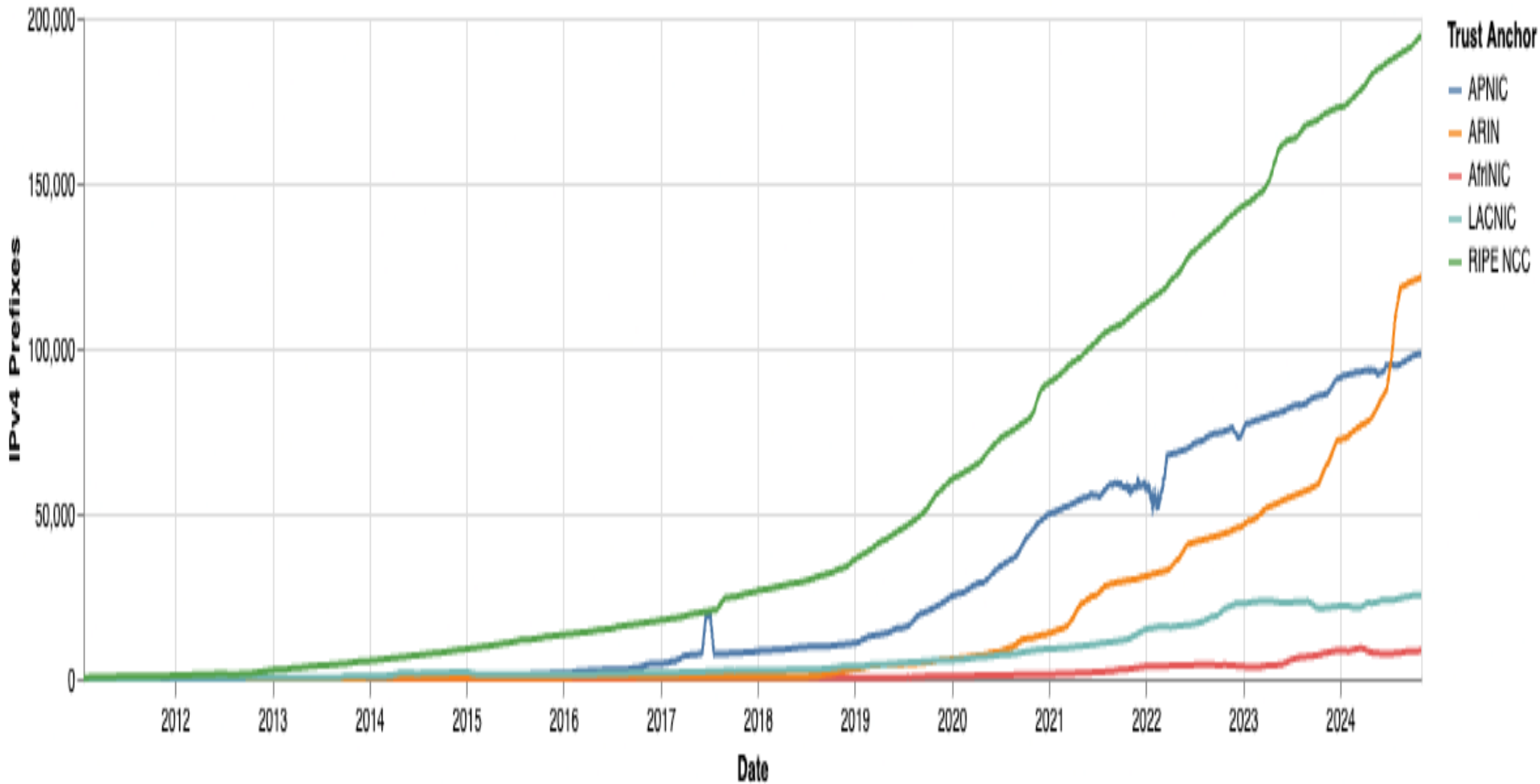
Protocol: IPv4

RIR: All

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

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

RPKI Covered IPv4 Prefixes by RIR



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

Questions & Answers

DNSSEC Resources

<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 Resources

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

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

<https://www.securerouting.net>

Thank You

Backup