



DNSSEC Workshop

*ICANN Meeting London
25 June 2014*



Program Committee

- Steve Crocker, Shinkuro, Inc.
- Mark Elkins, DNS/ZACR
- Cath Goulding, Nominet
- Jean Robert Hountomey, AfricaCERT
- Jacques Latour, CIRA
- Xiaodong Lee, CNNIC
- Luciano Minuchin, NIC.AR
- Russ Mundy, SPARTA, A Parsons Company
- Ondřej Surý, CZNIC
- Yoshiro Yoneya, JPRS
- Dan York, Internet Society
- Julie Hedlund, ICANN

DNSSEC Workshop Luncheon

Sponsors:

- Afilias
- CIRA
- Dyn
- Microsoft
- .SE
- SIDN

DNSSEC Implementer's Gathering Sponsors

The Program Committee held a gathering for DNSSEC Implementers on 23 June, sponsored by NominetUK

Program

Key to Level of Difficulty:

NOVICE = New to DNSSEC and want to learn more

INTERMEDIATE = Familiar with DNSSEC and how it works, but not of all concepts

EXPERT = Expert understanding of DNSSEC and extensive experience in deployment/implementation

0830-0900 – Presentation: Dan York, Internet Society:

DNSSEC Workshop Introduction, Deployment Around the World, 2014 View of Challenges to DNSSEC Deployment and Usage

0900-1000 – Panel Discussion: DNSSEC Activities in the European Region

1000-1030 – Presentation: Jim Galvin, Afiliis -- *DNSSEC Key Rollovers and Transfers*

1030-1045 – Break

1045-1115 – Presentation: Nick Sullivan, Cloudflare -- *DNSSEC and DNS Proxying*

1115-1200 – Panel Discussion: Hardware Security Modules (HSMs) Benefits and Challenges

1200-1230 – Presentation: Haya Shulman, Technische Universität Darmstadt -- *Operational Realities of Running DNSSEC/Cipher-Suite Negotiation Mechanism*

1230-1330 – Lunch Break: Roy Arends, NominetUK – *Great DNS Quiz*

1330-1445 – Panel Discussion/Demonstrations: DANE and DNSSEC Applications

1445 – Dan York, Internet Society – *DNSSEC - How Can I Help?*

DNSSEC Deployment Around the World

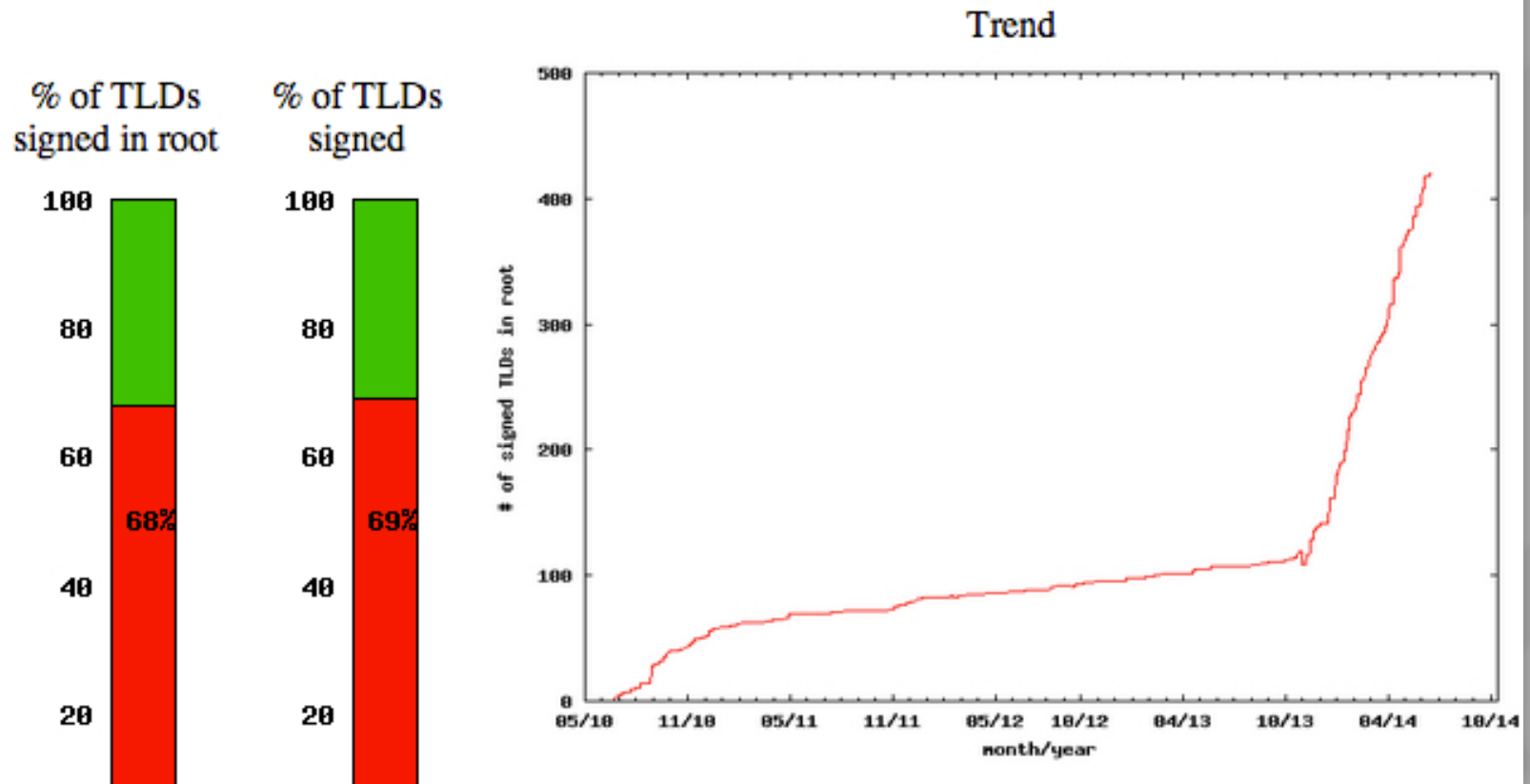
Counts, Counts, Counts

June 2014

Dan York, Internet Society

Sat Jun 21 23:17:57 UTC 2014

Total TLDs: 628 / Signed TLDs in root: 433 / Recently added: bmw.
(06/21/2014)



<https://rick.eng.br/dnssecstat/>

TLD DNSSEC Implementation Status

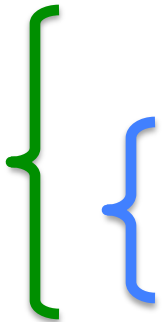
Experimental – internal experiments

Announced – Public commitment to deploy

Partial – Zone is signed but not in operation

DS in Root

Operational – Accepting signed delegations



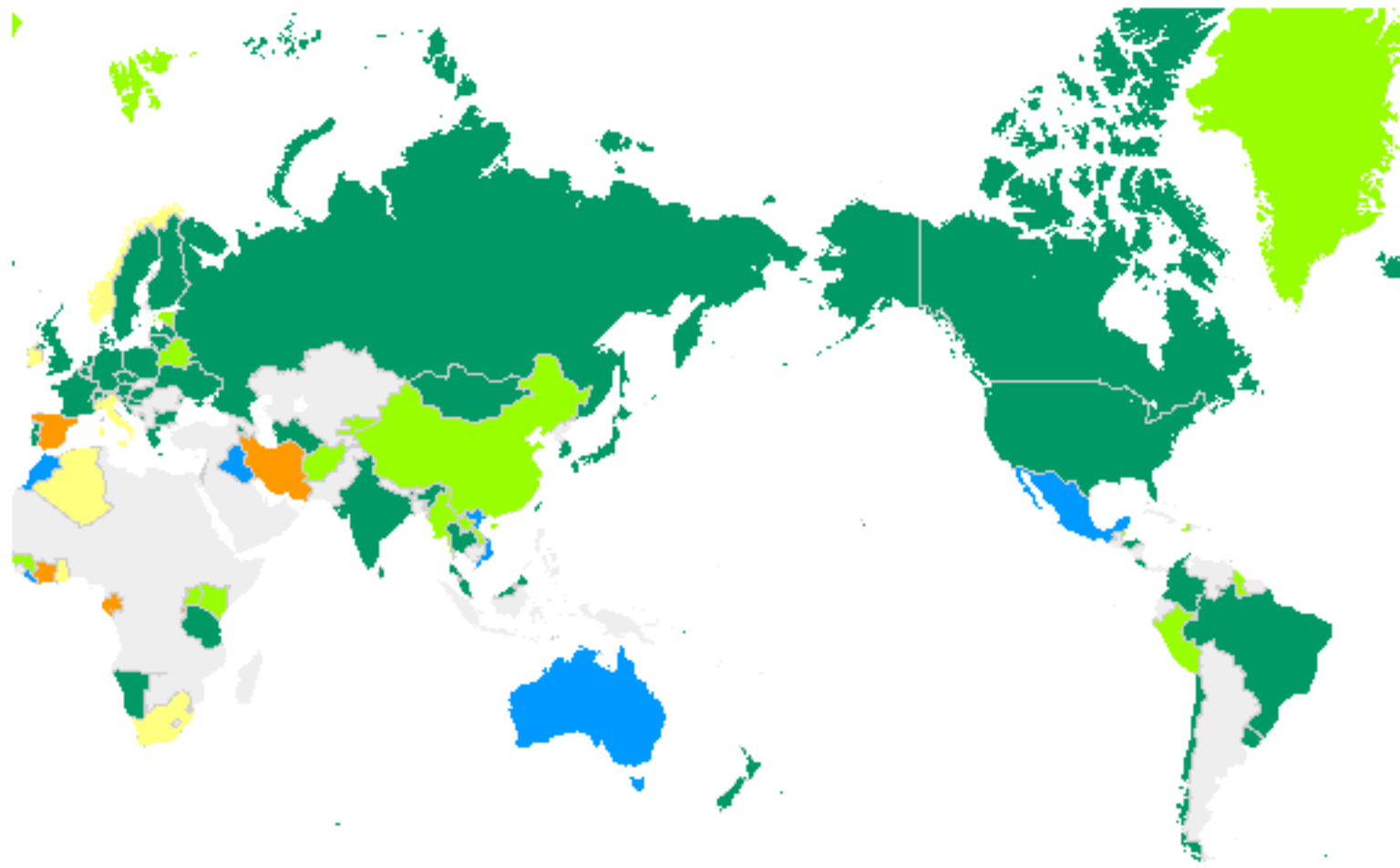
The TLDs – DS or Operational

Current

	gTLD	ccTLD	Regional	Total
Classic	304(315)	94(247)	2(2)	400(564)
IDN	27(29)	10(39)		37(68)
Total	331(334)	104(286)	2(2)	437(632)

- Measured: June 23, 2014
- Status: DS in the Root or Operational
- “Regional” is SU and EU
- IDN count is currently *incorrect*. 94 IDNs are in database. Working to fix before ICANN 51.

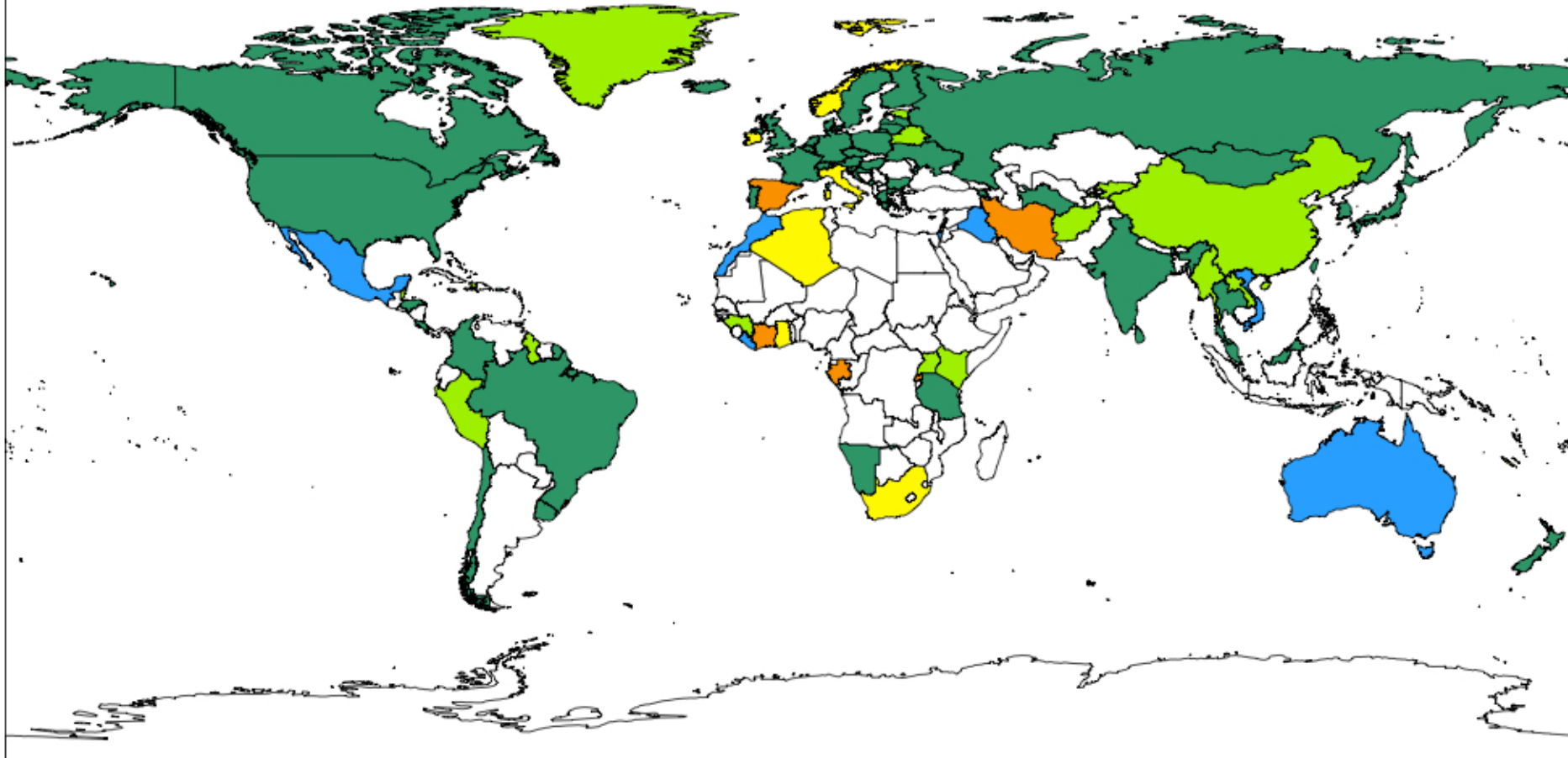
ccTLD DNSSEC Status on 2014-06-23



- Experimental (6)
- Announced (7)
- Partial (10)
- DS in Root (29)
- Operational (65)

ccTLD DNSSEC Adoption as of 2014-06-23

Experimental ● Announced ● Partial ● DS in Root ● Operational ●



Experimental -- Internal experimentation announced or observed (6):

Announced -- Public commitment to deploy (7):

Partial -- Zone is signed but not in operation (no DS in root) (10):

DS in Root -- Zone is signed and its DS has been published (29):

Operational -- Accepting signed delegations and DS in root (65):

CI ES GA IR RW TO

DZ GH IE IT NO SG ZA

AU HK IL IQ LR MA MS MX VC VN

AD AF AG AW BY BZ CC CN EE FO GI GL GN GY HT KE KG KI LA LB LC MM NC NU PE

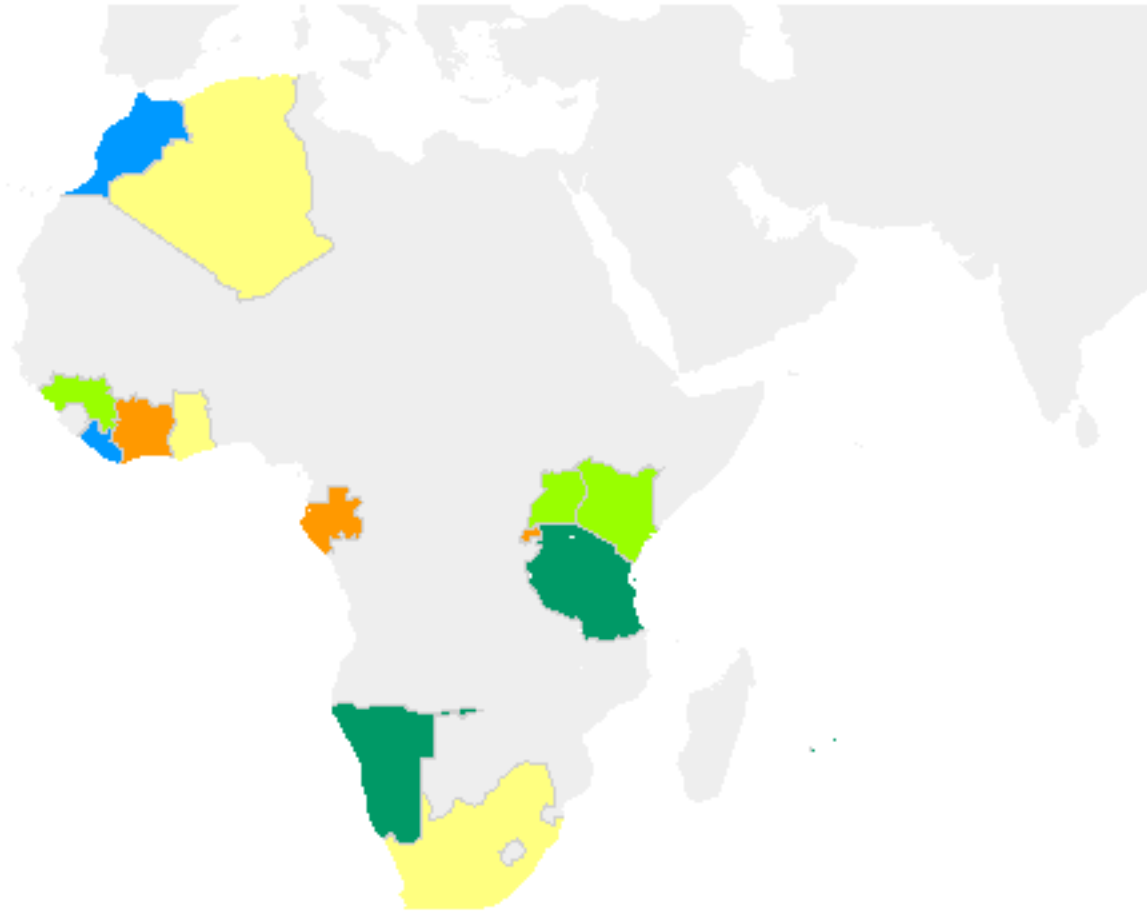
PW SJ TV UG

AC AM AT BE BG BR CA CH CL CO CR CX CZ DE DK FI FR GR GS HN HR HU IN IO IS

JP KR LI LK LT LU LV ME MN MU MY NA NF NL NZ PL PM PR PT RE RU SB SC SE SH

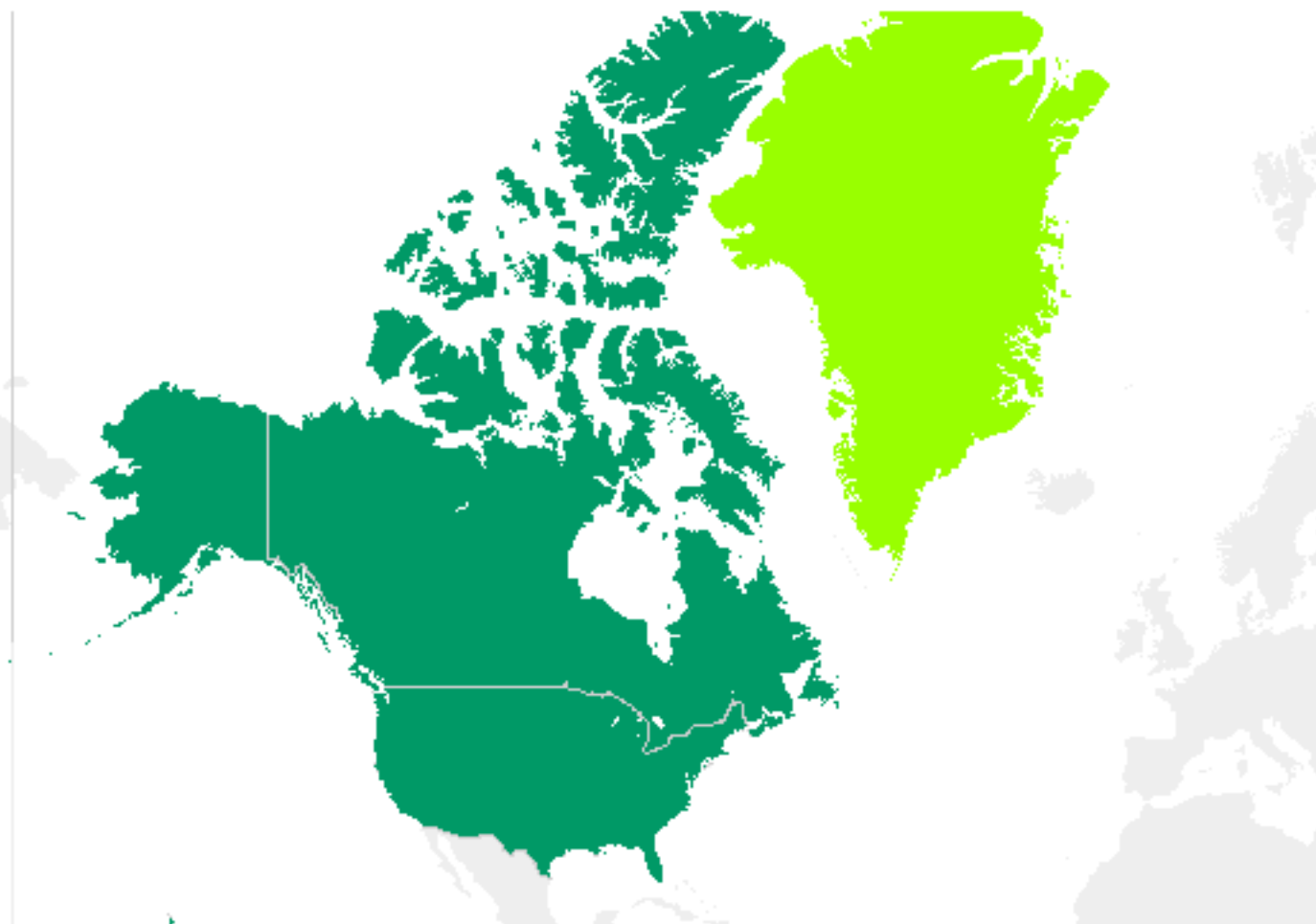
SI SX TF TH TL TM TT TW TZ UA UK US UY WF YT

AF ccTLD DNSSEC Status on 2014-06-23



- Experimental (3)
- Announced (3)
- Partial (2)
- DS in Root (3)
- Operational (8)

NA ccTLD DNSSEC Status on 2014-06-23



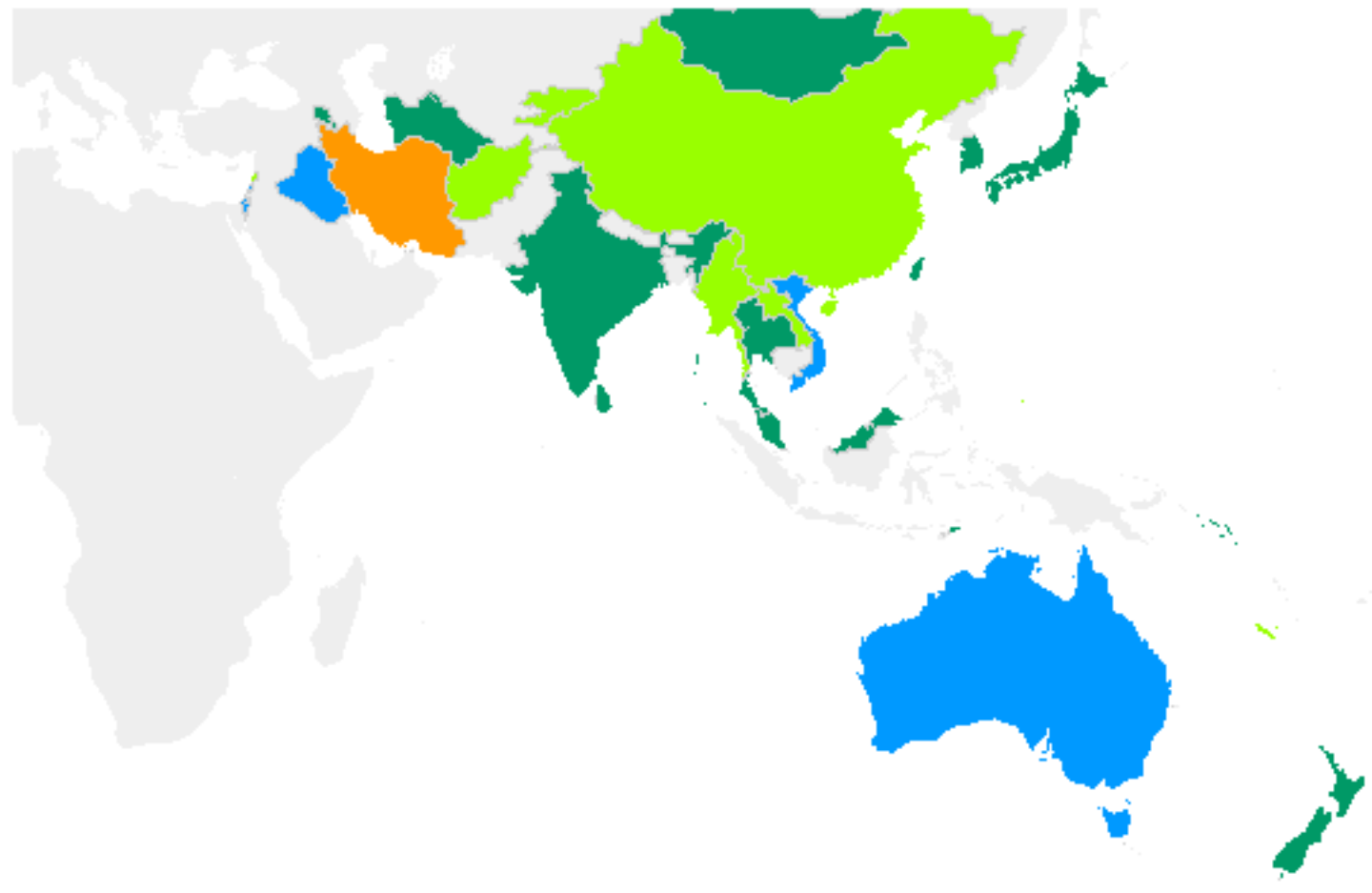
- Experimental (0)
- Announced (0)
- Partial (0)
- DS in Root (1)
- Operational (3)

LAC ccTLD DNSSEC Status on 2014-06-23



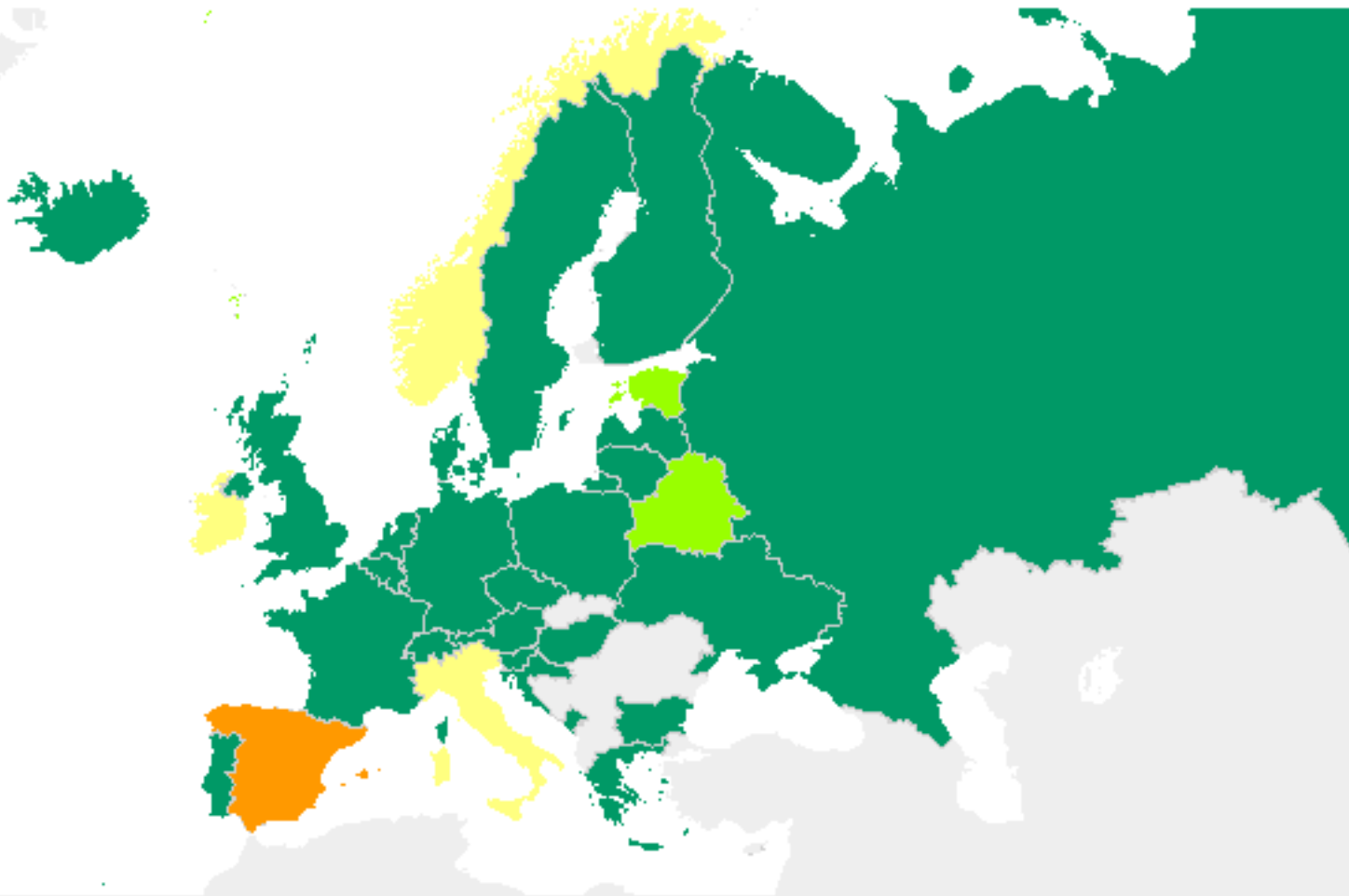
- Experimental (0)
- Announced (0)
- Partial (3)
- DS in Root (7)
- Operational (10)

AP ccTLD DNSSEC Status on 2014-06-23



- Experimental (2)
- Announced (1)
- Partial (5)
- DS in Root (12)
- Operational (18)

EUR ccTLD DNSSEC Status on 2014-06-23



- Experimental (1)
- Announced (3)
- Partial (0)
- DS in Root (6)
- Operational (26)

DNSSEC Maps - Next Steps

With so many ccTLDs signed, next phase:

- Seeking to dive deeper into signed second-level domains
- Seeking to visualize DNSSEC status of generic TLDs (gTLDs) and number of signed second-level domains

Working to make code open source:

- <https://github.com/Deploy360/dnssec-maps/issues>

Receiving the DNSSEC Deployment Maps Via Email

The DNSSEC Deployment Maps are now published via email every Monday morning through the Internet Society Deploy360 Programme. To subscribe, visit:

www.internetsociety.org/deploy360/dnssec/maps/

DNSSEC History Project

The DNSSEC History Project is an ongoing project to collect and record the history of the work that went into bringing about the deployment of DNSSEC. To view - or to contribute - please see:

https://wiki.tools.isoc.org/DNSSEC_History_Project



Thank You and Questions