



# DNSSEC Workshop

*ICANN Meeting Los Angeles  
15 October 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



NOTE: We are seeking 2015 sponsors!

# DNSSEC Implementer's Gathering Sponsors

The Program Committee held a DNSSEC Implementers Gathering on 13 October, sponsored by:

- Comcast
- NBC/Universal
- Motion Picture Association of America (MPAA)



# DNSSEC Workshop 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  
Deploy360 Programme**



# 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*

0900-1000 – Panel Discussion: DNSSEC Activities in North America

1000-1100 – Panel Discussion: Impact of Root Key Rollover

1100-1115 – Break

1115-1200 – Panel Discussion: DNSSEC Deployment in Operating Systems

1200-1300 – Lunch Break

1300-1400 – Panel Discussion: DNS/DNSSEC Monitoring

1400-1445 – Panel Discussion: DANE and Email Services

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

# **DNSSEC Deployment Around the World**

**Counts, Counts, Counts**

**October 2014**

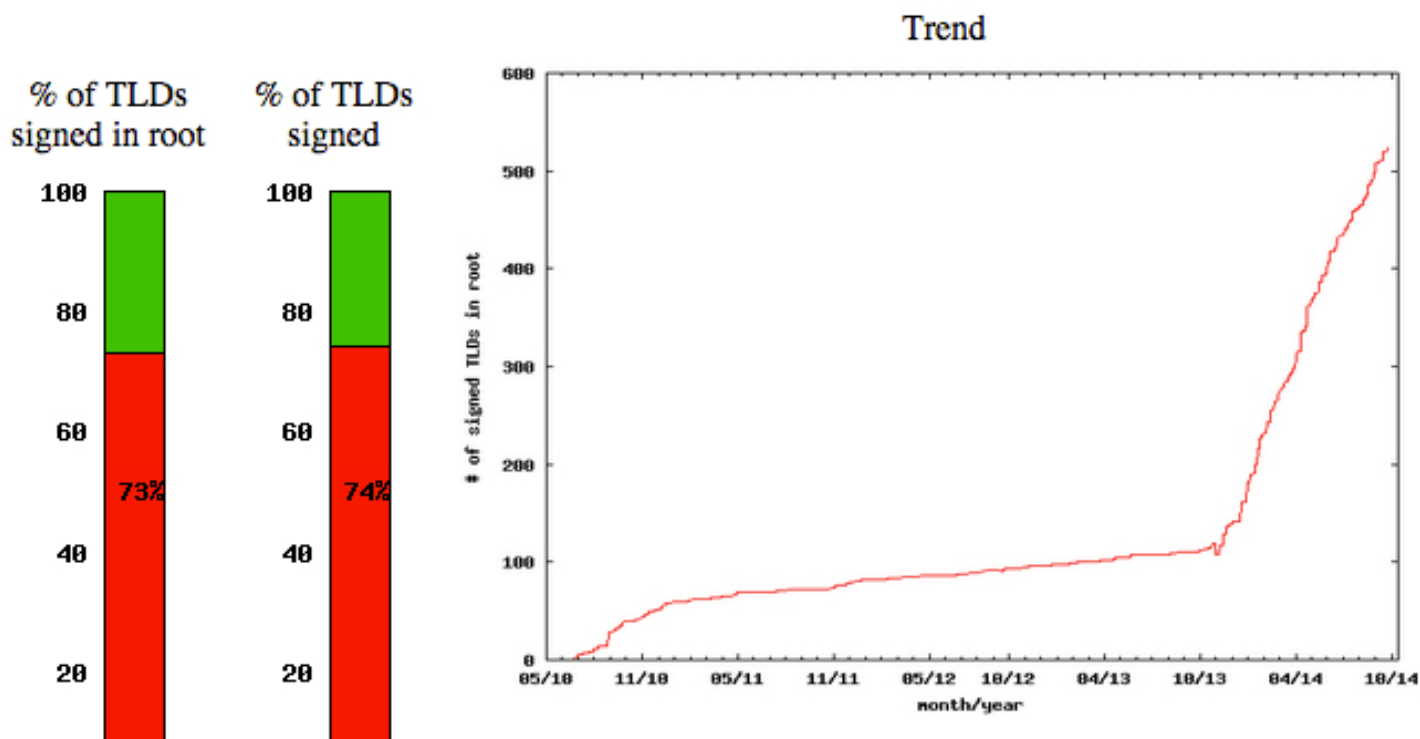
**Dan York, Internet Society**



# DNSSEC Deployment Report

Sun Oct 12 23:33:55 UTC 2014

Total TLDs: 726 / Signed TLDs in root: 538 / Recently added: alsace.  
(10/04/2014)



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



# TLD DNSSEC Implementation Status

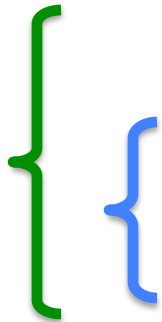
**Experimental – internal experiments**

**Announced – Public commitment to deploy**

**Partial – Zone is signed but not in operation**

**DS in Root**

**Operational – Accepting signed delegations**



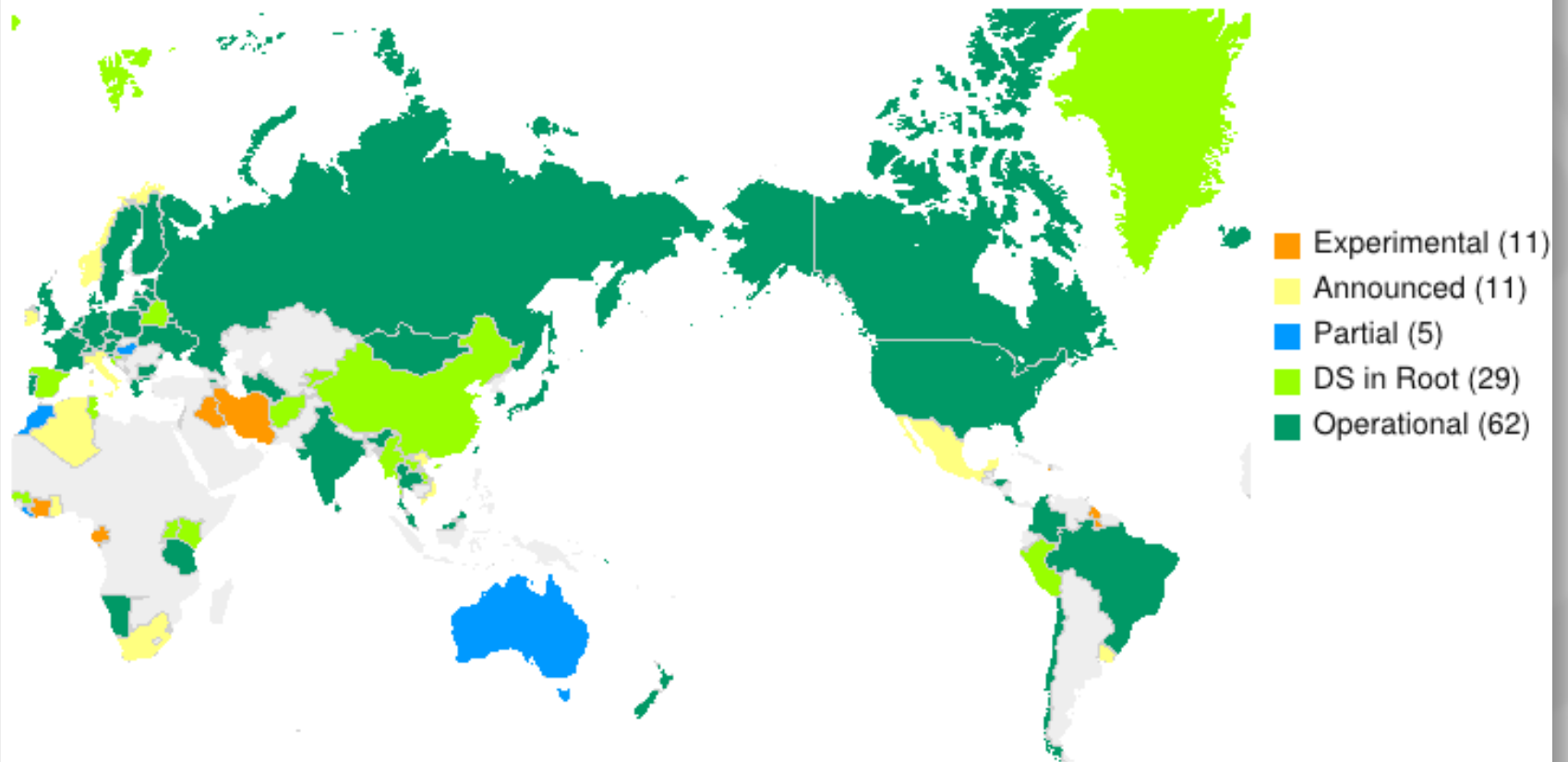
# The TLDs – DS or Operational

## Current

	gTLD	ccTLD	Regional	Total
Classic	398(408)	91(247)	2(2)	491(657)
IDN	35(35)	11(39)		46(74)
Total	433(443)	102(286)	2(2)	537(731)

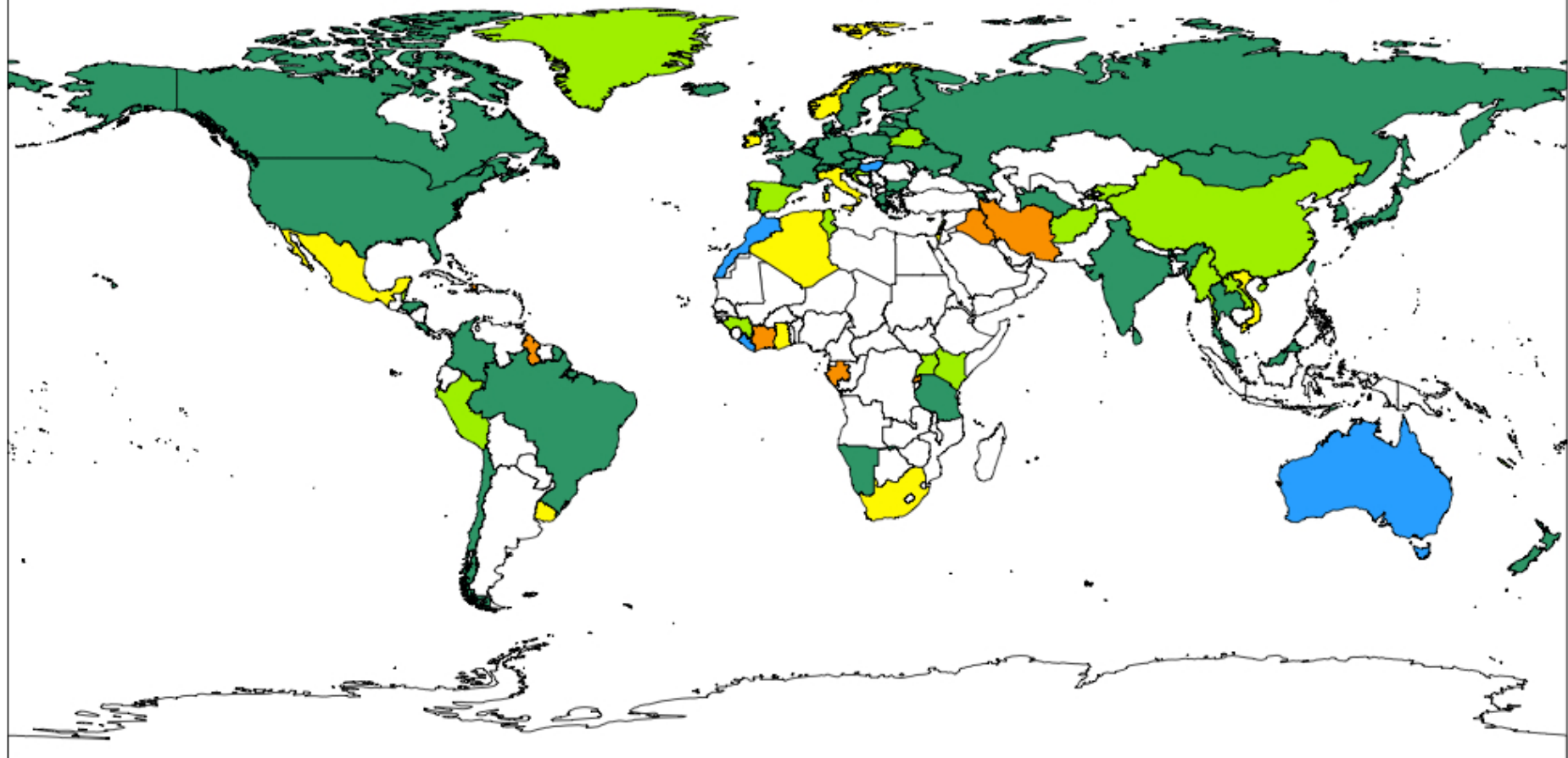
- Measured: Oct 14, 2014
- Status: DS in the Root or Operational
- “Regional” TLDs are SU and EU
- Total (537) does not include signed root

## ccTLD DNSSEC Status on 2014-10-14



# ccTLD DNSSEC Adoption as of 2014-10-14

Experimental (Orange)   Announced (Yellow)   Partial (Blue)   DS in Root (Light Green)   Operational (Dark Green)



Experimental -- Internal experimentation announced or observed (11):

Announced -- Public commitment to deploy (11):

Partial -- Zone is signed but not in operation (no DS in root) (5):

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

Operational -- Accepting signed delegations and DS in root (62):

CI GA GY HK HT IQ IR MS MU RW TO

DZ GH IE IL IT MX NO SG UY VN ZA

AU HU LR MA VC

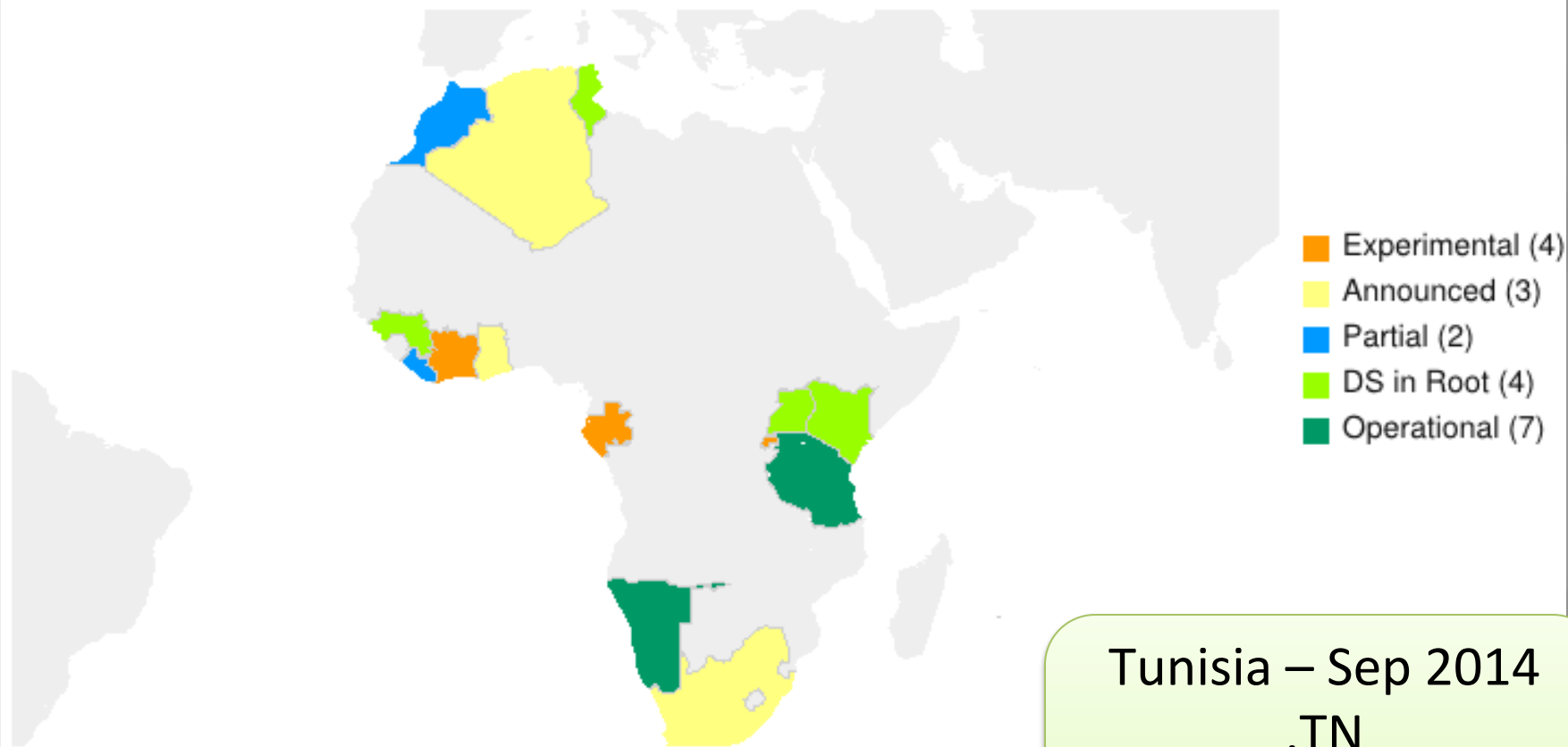
AD AF AG AW BY BZ CC CN ES FO GI GL GN HR KE KG KI LA LB LC MM NC NU PE PW  
SJ TN TV UG

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

KR LI LK LT LU LV ME MN 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 WF YT

## AF ccTLD DNSSEC Status on 2014-10-14

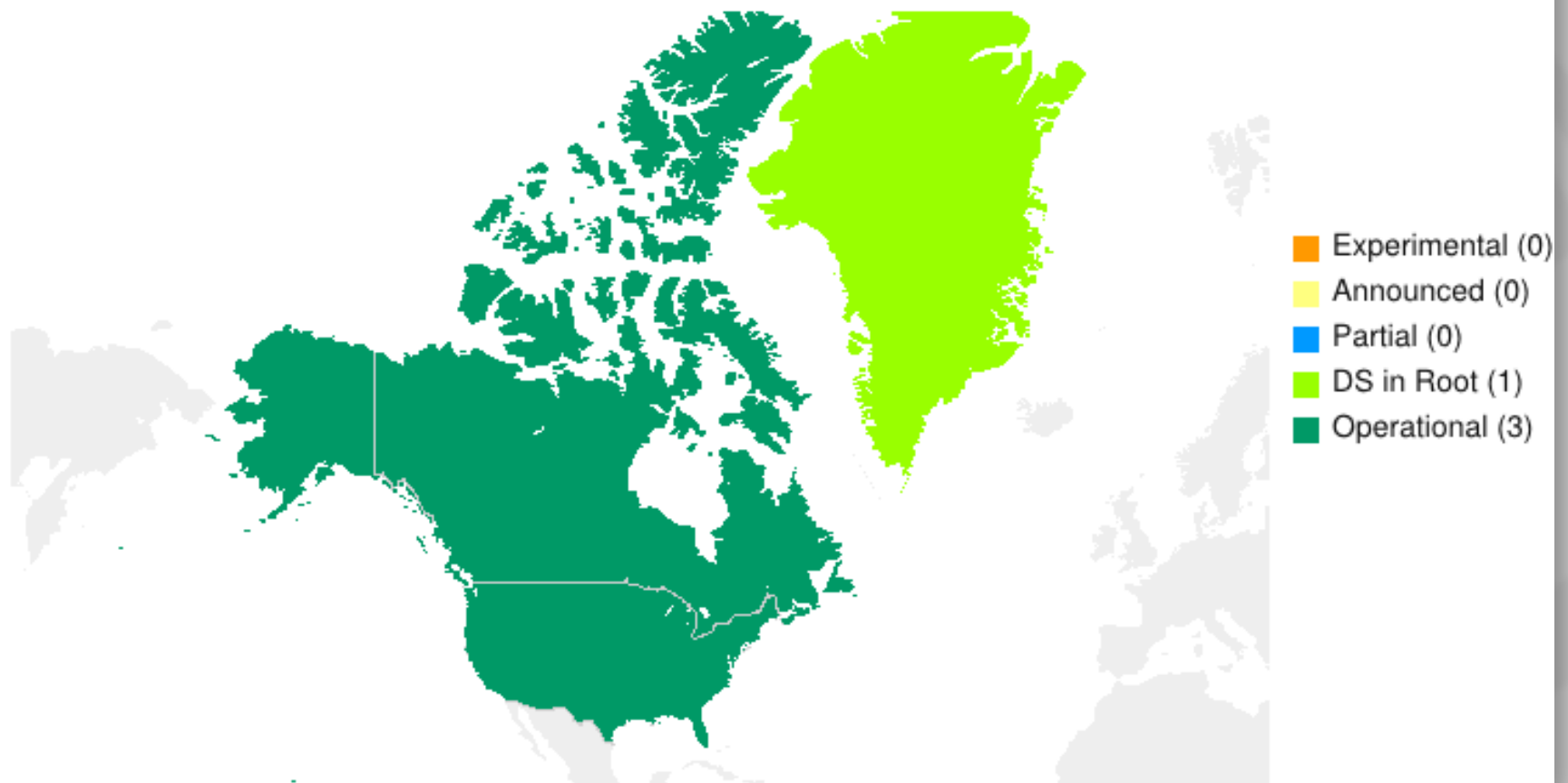


Tunisia – Sep 2014  
.TN

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Updated: MU

## NA ccTLD DNSSEC Status on 2014-10-14



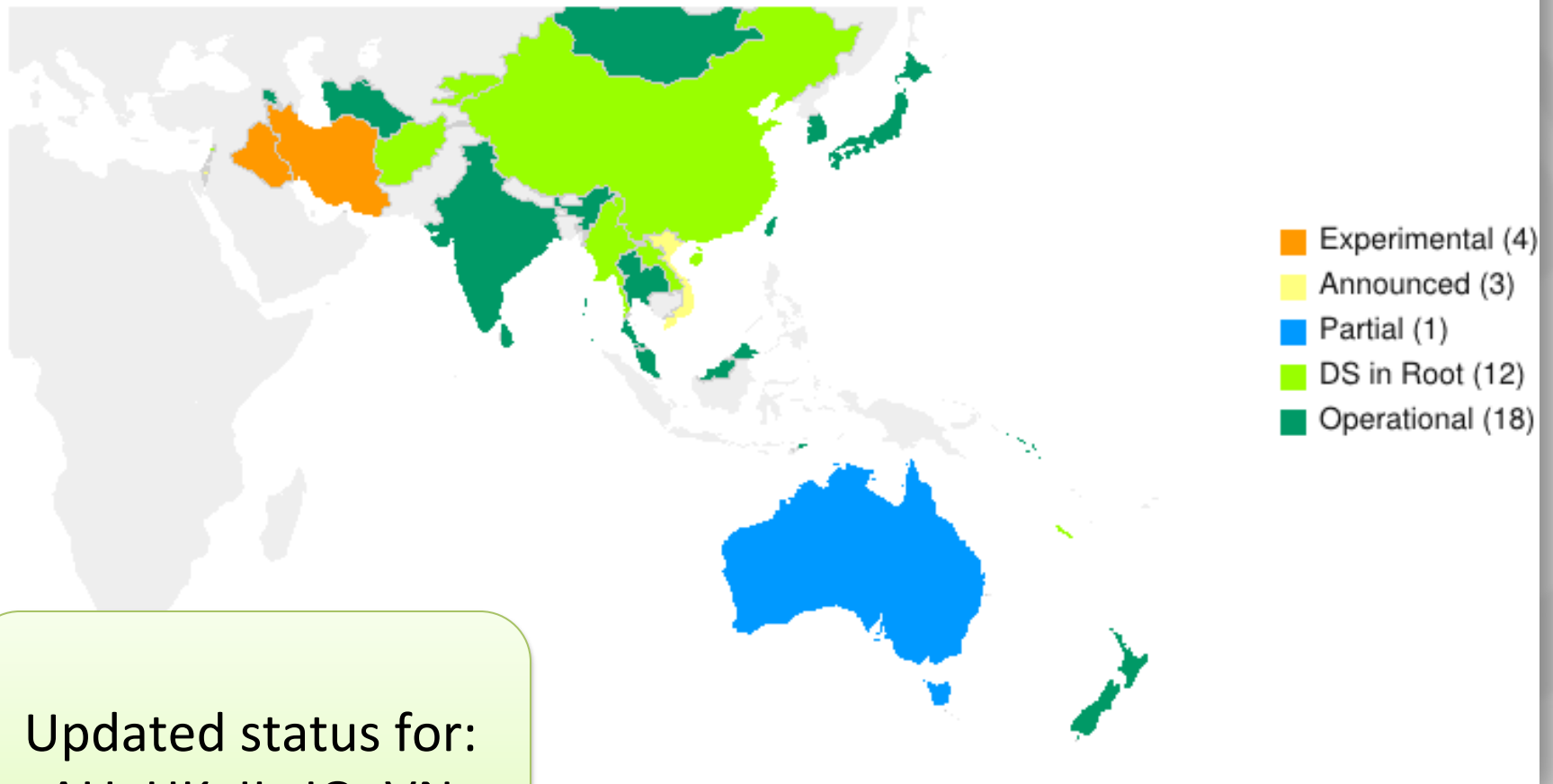
## LAC ccTLD DNSSEC Status on 2014-10-14



Updated status of:  
GY, HT, MS, MX, UY

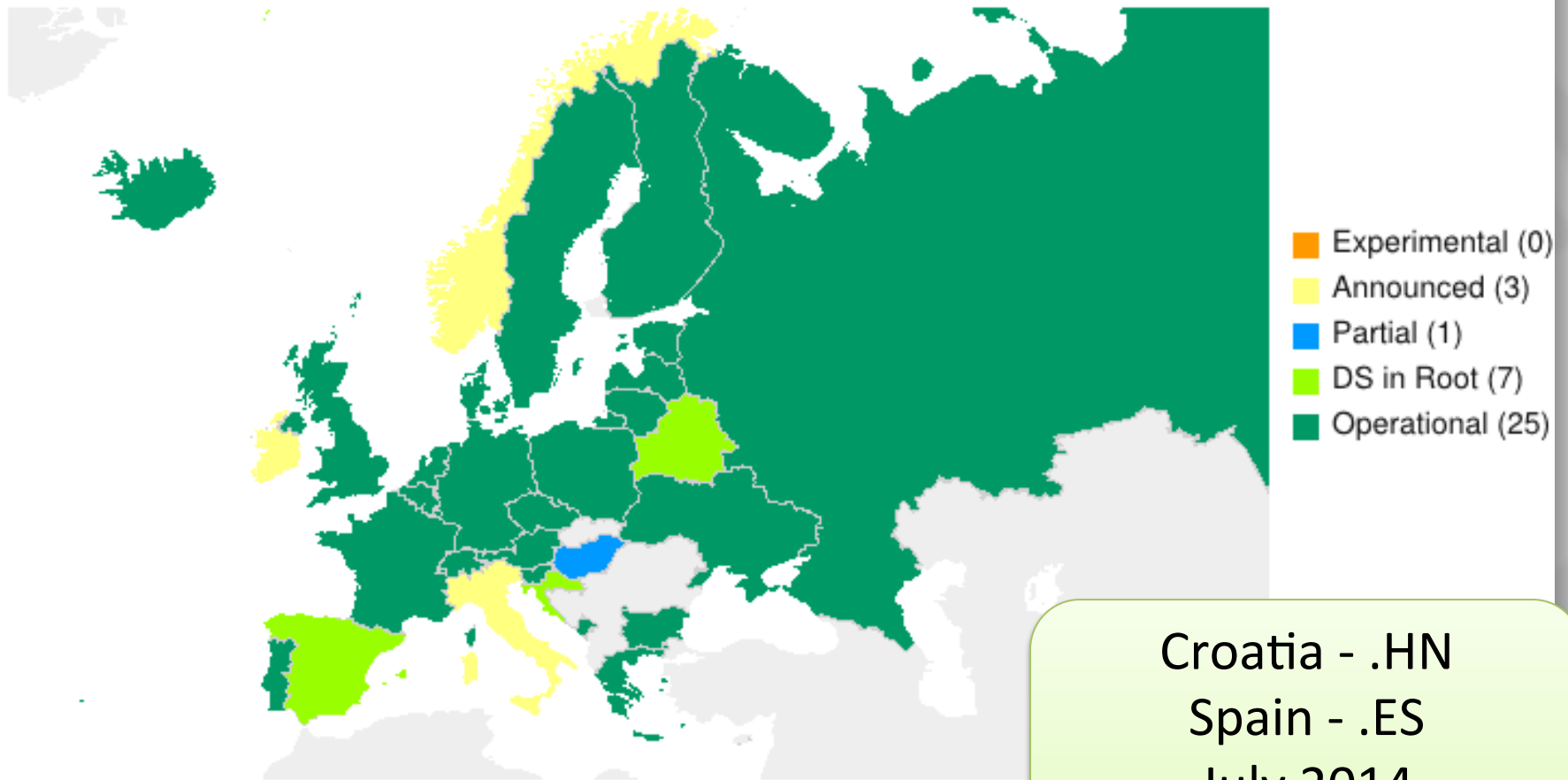


## AP ccTLD DNSSEC Status on 2014-10-14



Updated status for:  
AU, HK, IL, IQ, VN

## EUR ccTLD DNSSEC Status on 2014-10-14



Croatia - .HN  
Spain - .ES  
July 2014  
Updated: HU

# 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/](http://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](https://wiki.tools.isoc.org/DNSSEC_History_Project)



# Thank You and Questions

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