

# DNSSEC Validation

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03-Min

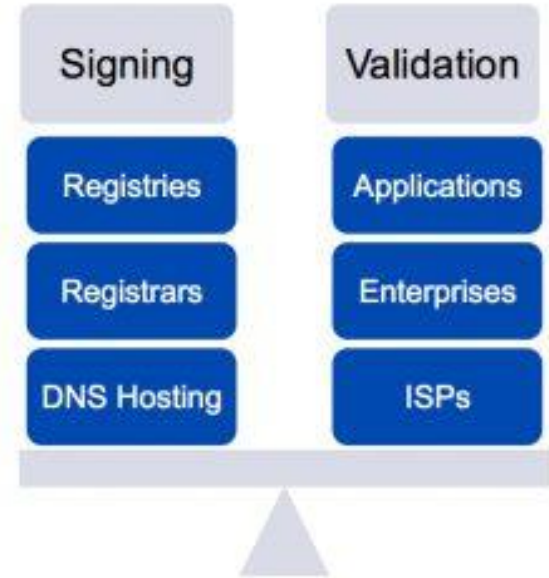


# MENOG

Middle East Network Operators Group



## The Two Sides of DNSSEC

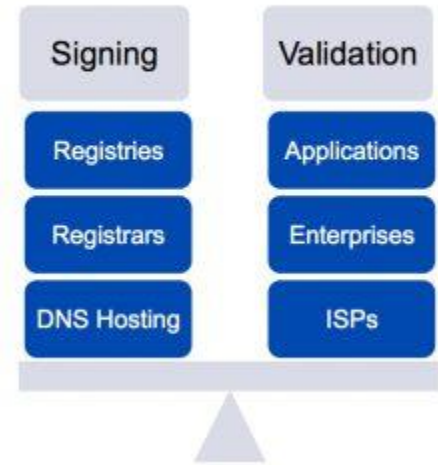


# DNSSEC

## Signing

- ❑ Signing – your domain is “signed” by the organization operating the name servers for the domain. This could be a
  - ❑ “DNS hosting” provider,
  - ❑ a “web hosting provider”,
  - ❑ a registrar (who offers DNS hosting),
  - ❑ your own DNS “authoritative servers”
  - ❑ or someone else you have operating the name servers on your behalf.

## The Two Sides of DNSSEC

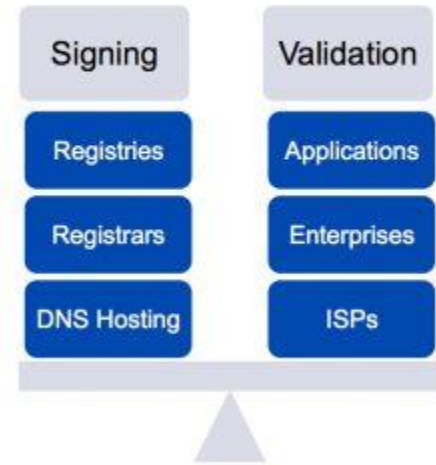


# DNSSEC

## Validation

- ❑ Validation – With DNSSEC, that DNS resolver will also validate the cryptographic signatures to ensure that the DNS information was not modified in transit.
  - ❑ At the DNS resolvers provided to you by your Internet Service Provider (ISP)
  - ❑ At the edge of your local network in a firewall or “home WiFi router”
  - ❑ DNS resolver on your local computer either included as part of the operating system or installed by you (ex. DNSSEC-Trigger)

## The Two Sides of DNSSEC

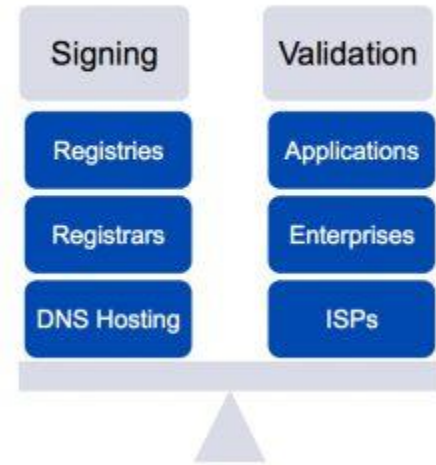


# DNSSEC

## Validation

- ❑ Validation – With DNSSEC, that DNS resolver will also validate the cryptographic signatures to ensure that the DNS information was not modified in transit.
  - ❑ Directly within an application on your computer such as a web browser, instant messaging client or mail server or client.
  - ❑ At public DNS resolvers such as those operated by Google's Public DNS

## The Two Sides of DNSSEC

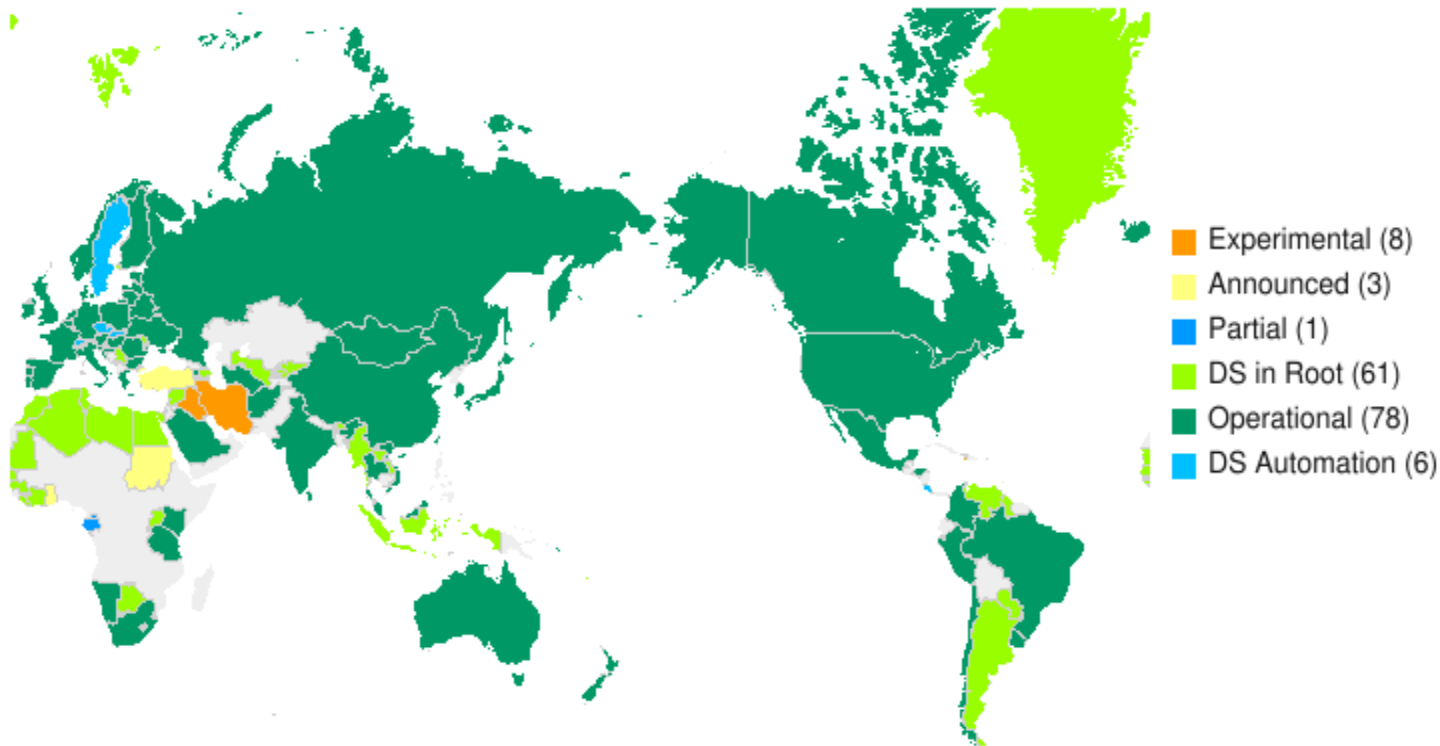




# State of DNSSEC Deployment in ccTLDs

DNSSEC Status

ccTLD DNSSEC Status on 2022-11-28

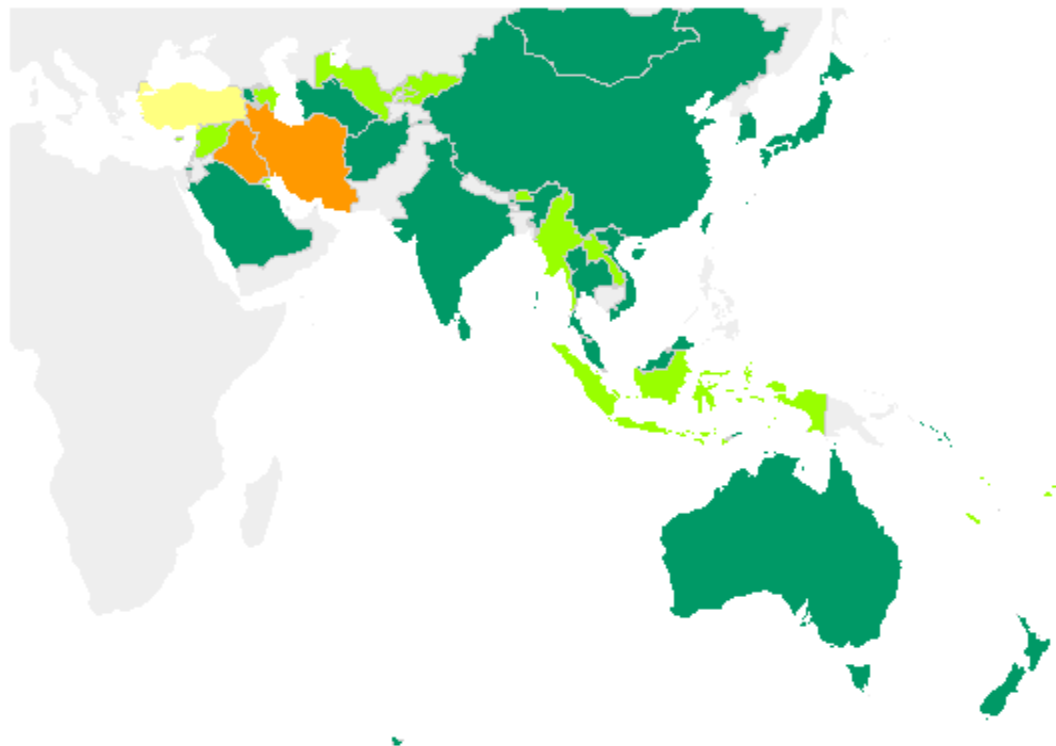


**Experimental** - Internal experimentation announced or observed  
**Announced** - Public commitment to deploy  
**Partial** - Zone is signed but not in operation (no DS in root)  
**DS in Root** - Zone is signed and its DS has been published  
**Operational** - Accepting signed delegations and DS in root.

# State of DNSSEC Deployment in ccTLDs

DNSSEC Status

AP ccTLD DNSSEC Status on 2022-11-28



- Experimental (4)
- Announced (1)
- Partial (0)
- DS in Root (22)
- Operational (26)
- DS Automation (0)

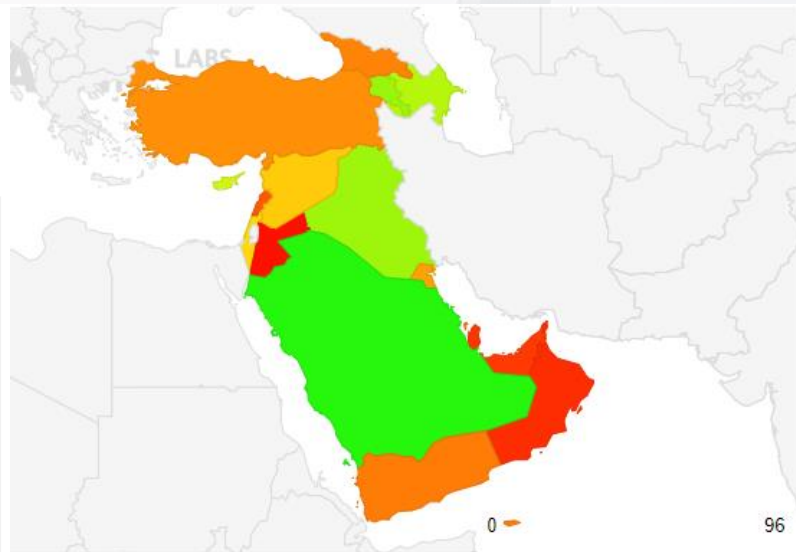
**Experimental** - Internal experimentation announced or observed  
**Announced** - Public commitment to deploy  
**Partial** - Zone is signed but not in operation (no DS in root)  
**DS in Root** - Zone is signed and its DS has been published  
**Operational** - Accepting signed delegations and DS in root.

# DNSSEC: Validation

## State of DNSSEC Validation

Code	SubRegion	DNSSEC Validates	Partial Validates	Samples	Weight	Weighted Samples
XV	Western Asia, Asia	46.72%	11.04%	643,004	0.87	559,451

CC	Country	DNSSEC Validates	Partial Validates	Samples	Weight	Weighted Samples
SA	Saudi Arabia, Western Asia, Asia	95.60%	4.01%	104,298	0.84	87,638
AM	Armenia, Western Asia, Asia	70.32%	16.81%	4,397	1.43	6,297
IQ	Iraq, Western Asia, Asia	69.24%	19.29%	56,730	1.64	93,000
AZ	Azerbaijan, Western Asia, Asia	63.89%	10.78%	12,825	1.71	21,869
CY	Cyprus, Western Asia, Asia	57.59%	9.87%	6,091	0.47	2,877
IL	Israel, Western Asia, Asia	42.41%	12.21%	44,472	0.44	19,739
SY	Syrian Arab Republic, Western Asia, Asia	39.58%	13.55%	3,418	5.26	17,965
PS	State of Palestine, Western Asia, Asia	31.65%	15.76%	7,854	1.26	9,876
KW	Kuwait, Western Asia, Asia	31.35%	3.52%	19,887	0.7	13,995
TR	Turkey, Western Asia, Asia	28.05%	9.79%	209,138	0.81	169,911
GE	Georgia, Western Asia, Asia	25.67%	21.56%	17,853	0.41	7,372
YE	Yemen, Western Asia, Asia	24.28%	14.43%	5,951	3.96	23,581
BH	Bahrain, Western Asia, Asia	22.09%	4.36%	7,936	0.56	4,452
LB	Lebanon, Western Asia, Asia	16.99%	10.60%	34,103	0.44	14,968
AE	United Arab Emirates, Western Asia, Asia	11.59%	3.80%	45,707	0.58	26,434
QA	Qatar, Western Asia, Asia	10.58%	47.34%	15,878	0.48	7,600
OM	Oman, Western Asia, Asia	8.73%	2.60%	20,410	0.58	11,782
JO	Jordan, Western Asia, Asia	3.20%	1.57%	26,056	0.77	20,088



Source: APNIC Labs:

<https://stats.labs.apnic.net/dnssec/XV>



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A low-angle photograph of a modern city skyline, featuring a prominent curved glass skyscraper in the center. The sky is a clear, bright blue. A large, semi-transparent blue circle is overlaid on the image, centered on the skyscraper. The text "Thank you" is written in white, sans-serif font across the circle, with "Available all the time" in a smaller font below it. The image is framed by a dark, curved architectural element at the top, suggesting a view from under a bridge or a similar structure.

Thank you

Available all the time