



ICANN Africa DNS Study 2022 DNS Observatory



@ AfPIF 2023



DNS Observatory - 1



- We have set up a Trial DNS Observatory for ICANN.
- It was presented at the African Engagement Forum last month in Accra.
- The primary objective is to track important growth in numbers, IPv6, DNSSEC, etc. of African domain names: -
 - ccTLDs, gTLDs, IDNs and 2LDs.
- The secondary objective is to make the Internet a better place, by offering a free AnyCast Secondary nameserver.

DNS Observatory - 2



- Create an account at <https://sec.dnsstudy.africa/>
- After authorisation you have access to a simple interface.
- Configure the Primary NameServer.
- Select security options and load Zones.
- Optional: add **ans.dnsstudy.africa** to your name server list.

The Benefits of using the Trial DNS Observatory as an Authoritative Name Server:



- This secondary will be configured as an AnyCast, with instances in many Data Centres and IXPs in many African countries.
- We already have agreements to host these servers, free of charge. We are looking for more.
- This will add:
 - Resilience, Reliability, Speed, and Geographic Coverage.

DNS Observatory - 1

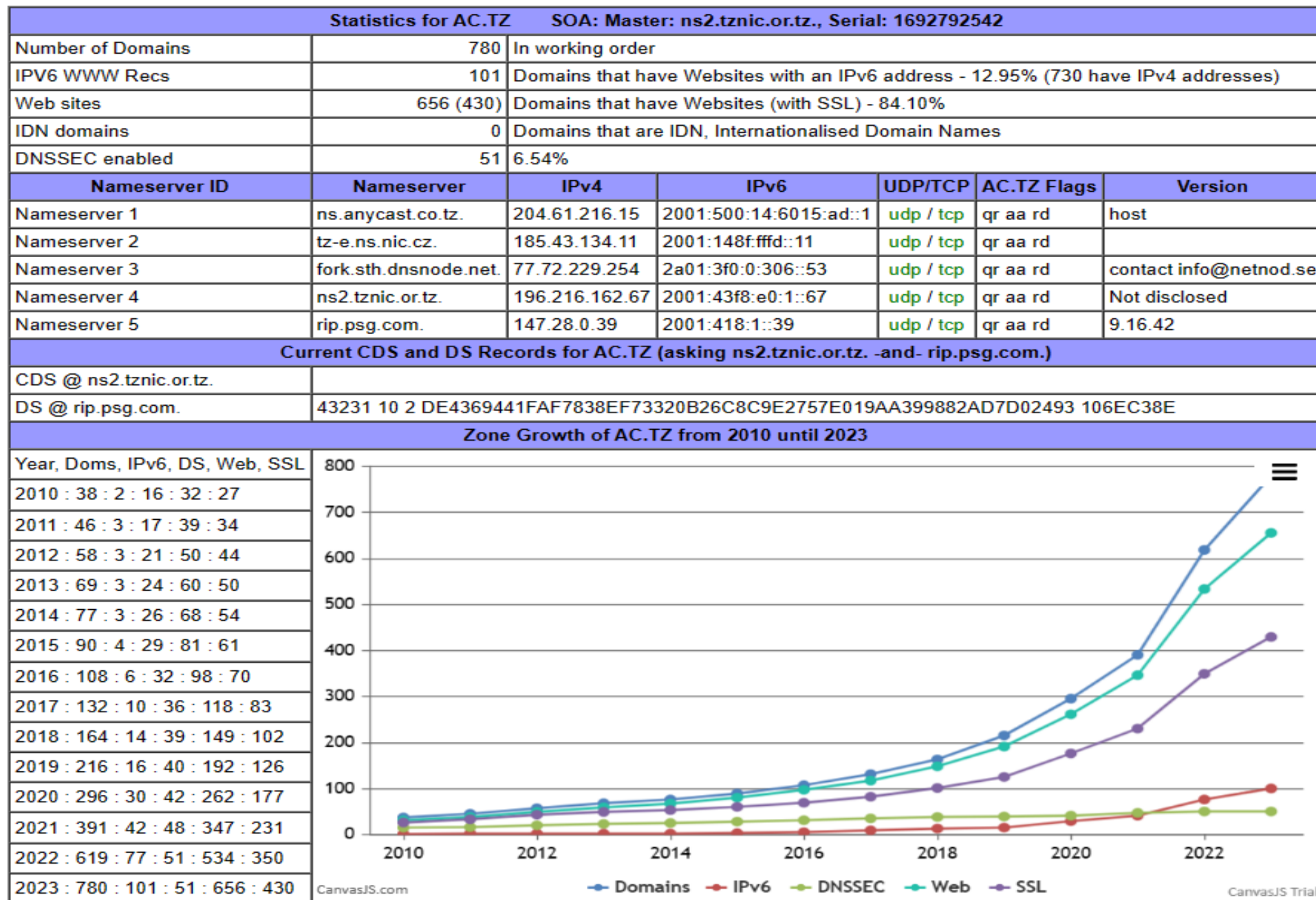
- The Observatory interface is at: -

<https://observatory.dnsstudy.africa/>

East	Burundi	0	
	Kenya	0	
	Rwanda	6,305	rw
	South Sudan	0	
	Tanzania	23,807	ac.tz , co.tz , go.tz , ne.tz , or.tz , sc.tz , tz
	Uganda	0	

- Clickable links to each Zone.
- Opens a new window.

The African DNS Observatory (DNS Study of Africa) Main Page - Johannesburg



Close Window

Public Zone Report - 1

➤ Summary Information: -

Statistics for AC.TZ		
Number of Domains	780	In working order
IPV6 WWW Recs	101	Domains that have Websites with an IPv6 address - 12.95% (730 have IPv4 addresses)
Web sites	656 (430)	Domains that have Websites (with SSL) - 84.10%
IDN domains	0	Domains that are IDN, Internationalised Domain Names
DNSSEC enabled	51	6.54%

Public Zone Report - 2

➤ NameServer Information: -

Nameserver ID	Nameserver	IPv4	IPv6	UDP/TCP	AC.TZ Flags	Version
Nameserver 1	ns.anycast.co.tz.	204.61.216.15	2001:500:14:6015:ad::1	udp / tcp	qr aa rd	host
Nameserver 2	tz-e.ns.nic.cz.	185.43.134.11	2001:148f:fffd::11	udp / tcp	qr aa rd	
Nameserver 3	fork.sth.dnsnode.net.	77.72.229.254	2a01:3f0:0:306::53	udp / tcp	qr aa rd	contact info@netnod.se
Nameserver 4	ns2.tznic.or.tz.	196.216.162.67	2001:43f8:e0:1::67	udp / tcp	qr aa rd	Not disclosed
Nameserver 5	rip.psg.com.	147.28.0.39	2001:418:1::39	udp / tcp	qr aa rd	9.16.42

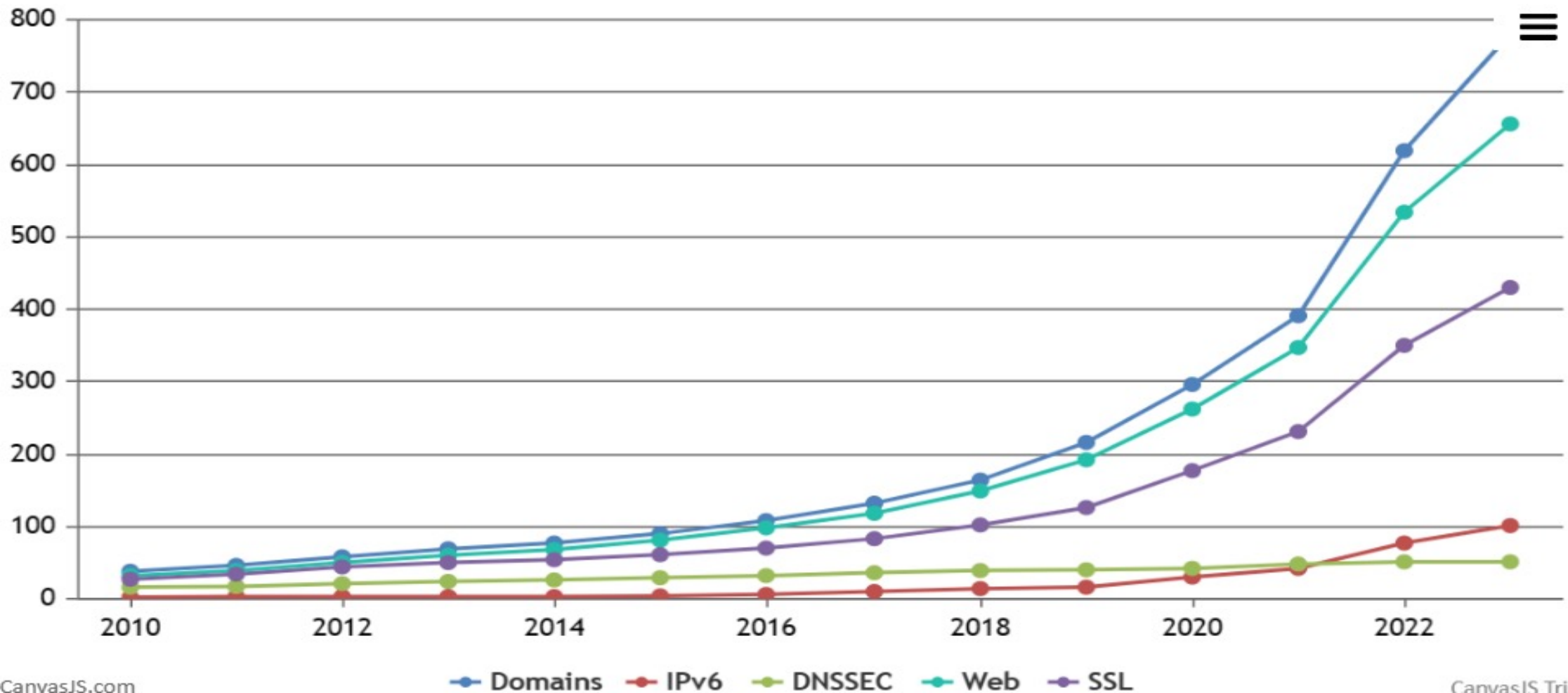
Public Zone Report - 3

➤ DNSSEC Information: -

Current CDS and DS Records for AC.TZ (asking ns2.tznic.or.tz. -and- rip.psg.com.)	
CDS @ ns2.tznic.or.tz.	
DS @ rip.psg.com.	43231 10 2 DE4369441FAF7838EF73320B26C8C9E2757E019AA399882AD7D02493 106EC38E

Public Zone Report - 4

➤ Growth Graph: -



Private Interface



- Some examples of private data and reports which will be available to Zone Managers: -
- Downloadable information: -
 - List of domains that are broken (e.g., Nameservers don't work)
 - List and statistics on which SSL vendors are used
 - KINDNS Observance.
 - Domains not using IPv6
- What else would you like us to do for you?

PSA 2022 Africa DNS Market Study



- <https://sec.dnsstudy.africa> to sign up and configure Zones.
- <https://observatory.dnsstudy.africa> to see Reports.
- <https://dnsstudy.africa> to complete our Surveys.
- We'd like to talk to IXP and Data Centre Managers here to arrange more sites (And to complete our surveys)
- We'd like to talk to people about them providing Virtual Machines for this purpose.
- **If we can help each other, talk to us:** info@dnsstudy.africa