DNS64 · Cache · www · Recursive · IOT · Root · .sa · Saudi 2030 · Risk · Records · 5G · Vision · Security · DNS · STC · TTL · DNS · TLS · QPS · URL · 2020 · Sub Domain · Top Level Domains · Authoritative · DDOS · Risk · FQDN · plan · IPv4 · Delegation · DNSSEC · Hostname · Mail · Who is · Data · .COM · IPv6 · العقيل

IPSD — إدارة تصميم أمن الشبكة

Abdulaziz A. Alaqil
IP Design Manager

Agenda

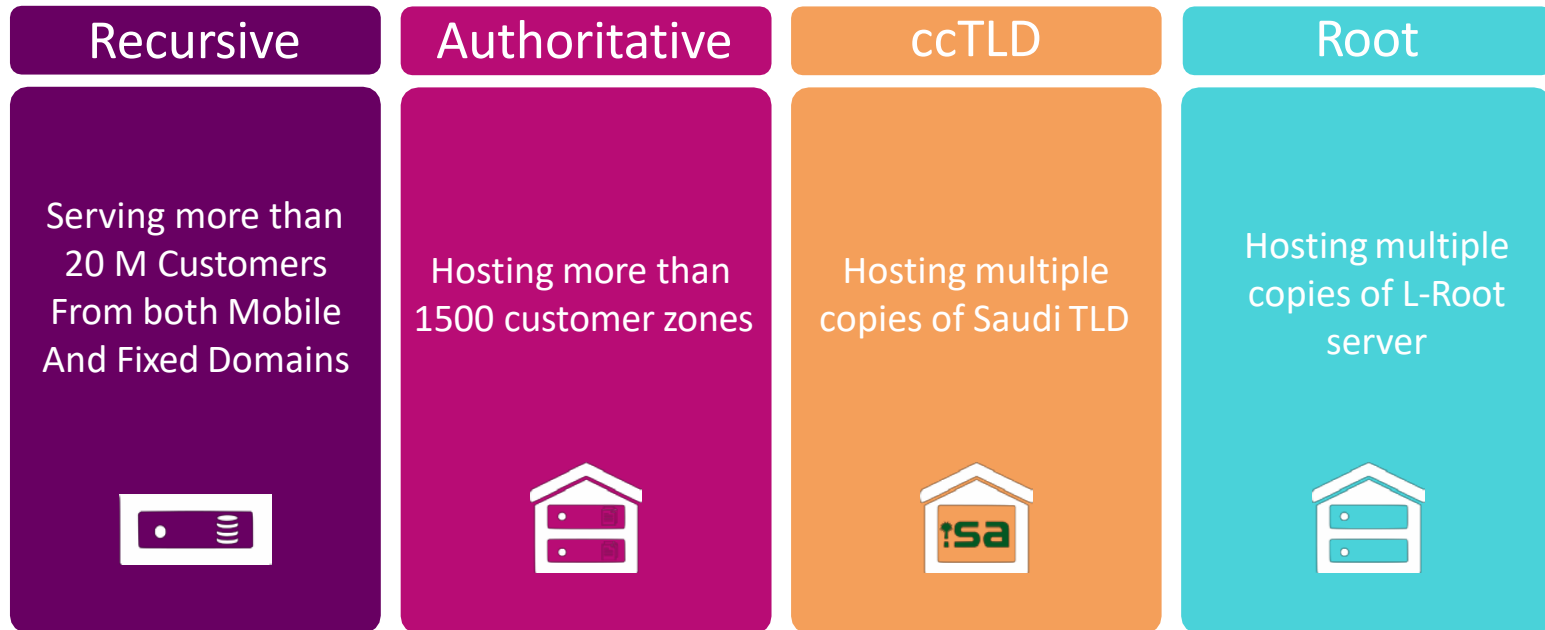|	
Overview	STC leap (2020)
Recursive DNS	STC recursive DNS revamp
Authoritative DNS	STC Authoritative DNS Modernization
STC Initiatives and Future plans	Our initiatives journey and Future Plans

Overview

STC leap (2020)

Deep coverage
To reach challenging locations

Strong security
e.g. Health / government / financial trusted

Ultra-low energy
10+ years of battery life

Ultra-high reliability
<1 out of 100 million packets lost

Ultra-low complexity
10s of bits per second

Massive Internet of Things

Mission-critical control

Ultra-low latency
As low as 1 millisecond

Ultra-high density
1 million nodes per Km²

Enhanced mobile broadband

Extreme capacity
10 Tbps per Km²

Extreme user mobility
Or no mobility at all

Extreme data rates
Multi-Gigabits per second

Deep awareness
Discovery and optimization

Overview - Cont

STC infrastructure contains multiple DNS types

Recursive	Authoritative	ccTLD	Root
Serving more than 20 M Customers From both Mobile And Fixed Domains	Hosting more than 1500 customer zones	Hosting multiple copies of Saudi TLD	Hosting multiple copies of L-Root server

STC Recursive DNS Revamp

STC enrich its customer experience by evolving its Recursive DNS infrastructure

Recursive

Serving more than
20 M Customers
From both Mobile
And Fixed Domains

Security
- Anti SPAM
- Anti Malware
- DDOS Mitigation
- DNSSEC Validation

Capacity
- Four active sites
- More than 3 M QPS

Availability
- Three levels of Redundancy
- Anycast

STC Authoritative DNS Modernization

Security is the driver for Authoritative modernization

Authoritative

Hosting more than 1500 customer zones

Security
- DNSSEC
- Tsig
- DDOS Mitigation

Availability
- Two levels of Redundancy
- Higher performance

STC Initiatives and Future Plans

Initiatives

Root
Contribute in global Root server Availability by hosting instances of the Root server
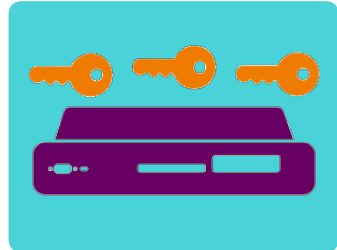
Saudi TLD
STC Hosted multiple copies of Saudi TLD to contribute in ccTLD availability and enhance STC customer experience

Future Plans

Security

HSM

Thank you