ICANN Engagement Update

Champika Wijayatunga | SANOG25 – Sri Lanka | 17 January 2015

Internet Corporation for Assigned Names and Numbers (ICANN)

1 Dedicated to keeping Internet Secure, Stable and Interoperable

2 Formed in 1998 as a not-for-profit public-benefit cooperation

**3** Follows multistakeholder model

ICANN

Functions that ICANN Coordinates

+ Domain Name System (DNS)

+ Internet Protocol (IP) Address and Autonomous System Number (AS) Allocation

+ Protocol-Parameter Registry

+ Root Server Systems

+ Generic Top-Level Domain Names (gTLD) system management

+ Country-code Top-Level Domain Name (ccTLD)

+ Time Zone Database Management

Unique Identifiers and SSR Need

+ SSR – Security, Stability and Resiliency

+ Misuse of and attacks against the DNS and global networks challenge overall unique identifier security
  – Affect the broad range of users, individuals, businesses, civil society, governments etc.

+ Security in the context of the Internet's unique identifiers should be addressed through a healthy Internet ecosystem.
  – an Internet that is sustainable or healthy, stable and resilient

Security, Stability, & Resiliency (SSR) A key pillar of ICANN

The Internet – our "Network of Networks"

- Gov
- Law Enforcement
- Network Operators
- ICANN
- CERTs
- Domain Operators
- Regional Internet Registries
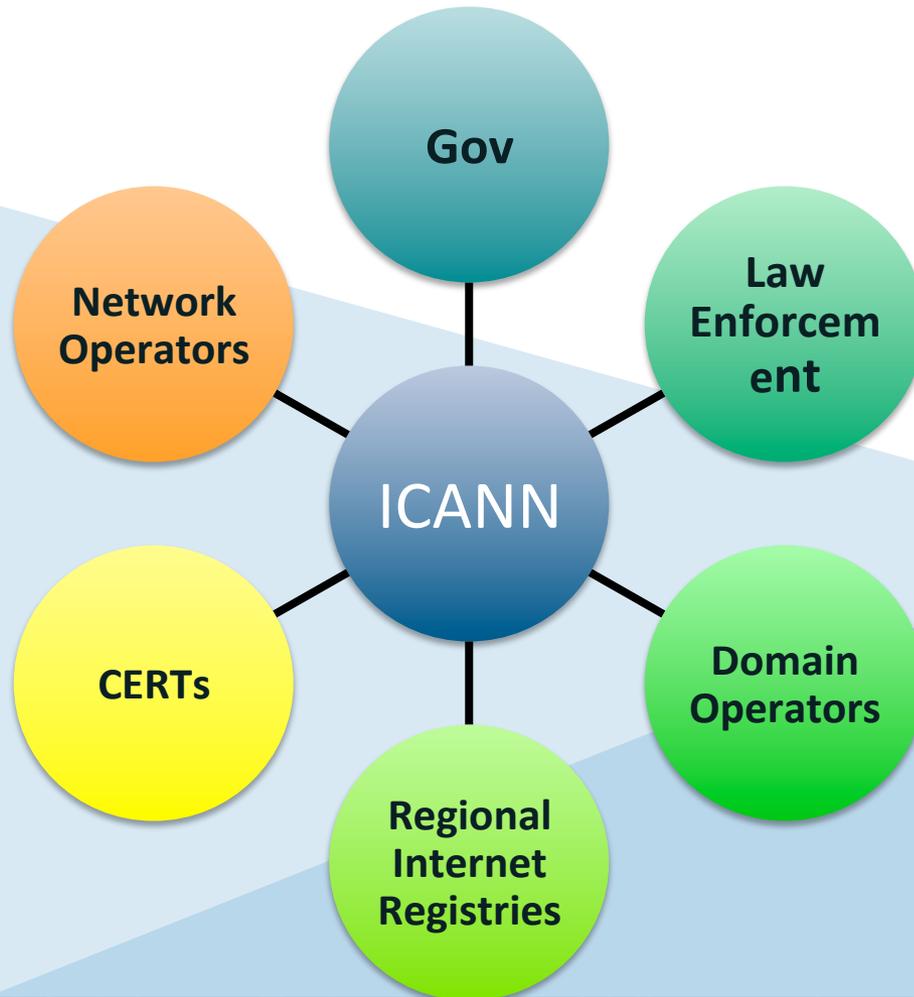
- Threat Awareness and Response
- Trust-based Collaboration
- Capability Building
- Identifier SSR Analytics

Root Servers to benefit Internet Stability and Resiliency

+ ICANN is the L-Root Operator

+ L-Root nodes keep Internet traffic local and resolve queries faster

+ Make it easier to isolate attacks

+ Reduce congestion on international bandwidth

+ Redundancy and load balancing with multiple instances

L-Root presence

L-Root presence

+ Geographical diversity via Anycast

  + Around 160 dedicated servers

  + Presence on every continent

+ On normal basis 15 ~ 25 kqps

  + That is app 2 billion DNS queries a day

+ Interested in hosting a L-Root

  + Contact your ICANN Global Stakeholder Engagement Representative

New gTLDs

.cat .com .coop .biz .edu .aero .gov .info .int .jobs .mil .museum .name .net .org .xxx .travel .tel .pro .post

22 › 1300
gTLDs
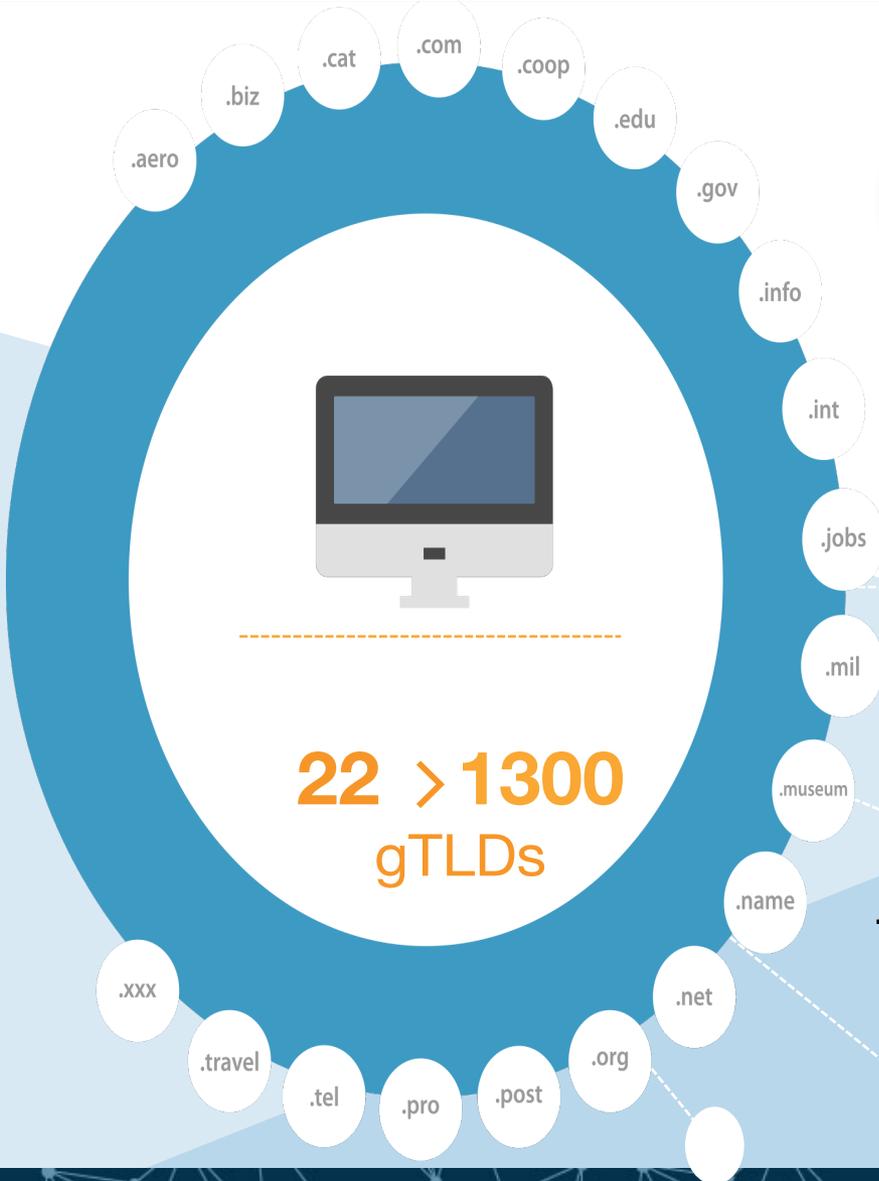
generic Top-Level Domains (gTLDs) will quickly expand to over,1,300 currently over 400 rolled out

.futbol

.ceo

.онлайн

.みんな

.menu

.brand
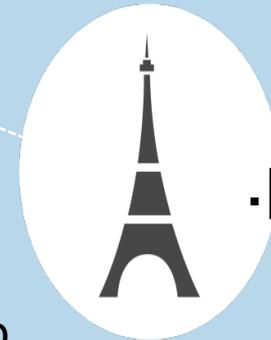
.paris

.公益 .cab

Making the DNS Secure

+ A computer sends a question to a DNS server, like "where is www.example.org?"

+ It receives an answer and assumes that it is correct.

+ There are multiple ways that traffic on the Internet can be intercepted and modified, so that the answer given is false.

ICANN strongly supports DNSSEC

+ Cyber security is becoming a greater concern to enterprises, government, and end users. DNSSEC is a key tool and differentiator.

+ DNSSEC is the biggest security upgrade to Internet infrastructure in over 20 years. It is a platform for new security applications (for those that see the opportunity).

+ DNSSEC infrastructure deployment has been brisk but requires expertise. Getting ahead of the curve is a competitive advantage.

How about Registrations?

Importance of WHOIS from a Security point of view

+ whois.icann.org

+ Registration Data Directory Service

  - Database containing records of information

+ Verification of records

  - Sponsoring Registrar

  - Domain Name Servers

  - Domain Status

  - Creation/Expiry Dates

  - Point of Contacts

  - DNSSEC Data

IPv6 deployment and adoption

+ IPv4 address exhaustion

 + IPv6 as solution

+ IP addresses are key to allow devices to find each other

 + Mobile Internet

 + Internet of Things

 + Smart Nations

+ ICANN supports IPv6

 + Partner to promote awareness

 + Capacity building with community

SSR Engagement in Sri Lanka (and South Asia)

+ Engaging with Governments / Law Enforcement Agencies
  + Justice Sector workshop in IN (Aug 2014)
  + **Security and Law Enforcement workshops in LK (Oct 2014)**
  + DNSSEC and Law Enforcement workshop in PK (Apr 2015)
  + **ICTA**, IRINN, BD MICT
+ Technical and Operational Forums
  + **Sponsorship funding, trainer resources** etc.
  + **SANOG**, bdNOG, btNOG
+ Collaboration with Regional Internet Registries (RIRs)
  + Capacity building activities in BD, IN, PK
+ CERTs, ccTLDs etc.
  + **SLCERT, TechCERT**, .IN, .BD

SSR Capability Building

Capability Building

DNS Training
- Security
- DNS Operations
- Abuse/Misuse

Knowledge Transfer
- Europol
- Interpol
- RIRs

- Training and Outreach
  - Security, operations, and DNS/DNSSEC deployment training
    - for TLD registry operators
    - Network Operators / ISPs
    - Enterprises, Corporates etc.

  - Information gathering to identify Internet Identifier Systems abuse/misuse and Investigation Techniques
    - Law Enforcement Agencies
    - CERTs
    - Internet Investigators etc.

Participation in ICANN

+ Open to entire Internet ecosystem

+ Receive updates via MyICANN

+ Join public comment forum on ICANN's web site

+ Attend ICANN's public meetings in person or online

+ Join one of ICANN's Supporting Organizations or Advisory Committees

ICANN Fellowship Program – Join Us!

+ Program Goals

+ Awareness: Engage representatives from developing nations

+ Participation: Build capacity within ICANN community

+ Contribution: Create a broader base of knowledgeable constituents

ICANN APAC Hub

APAC HUB
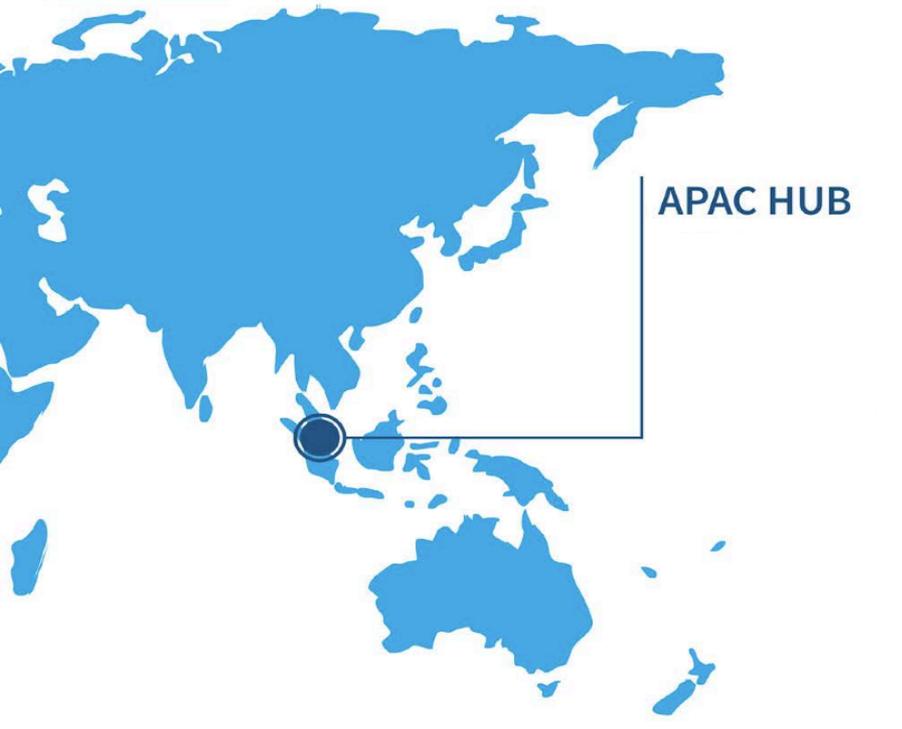
+ **Regional Office in Singapore**

+ Registry/Registrar services

+ Contractual Compliance

+ Security

+ Engagement

+ Legal, Finance, HR

Engage with ICANN

ICANN

Thank You and Questions

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