Introduction to Registries and Registrars

Registry Basics

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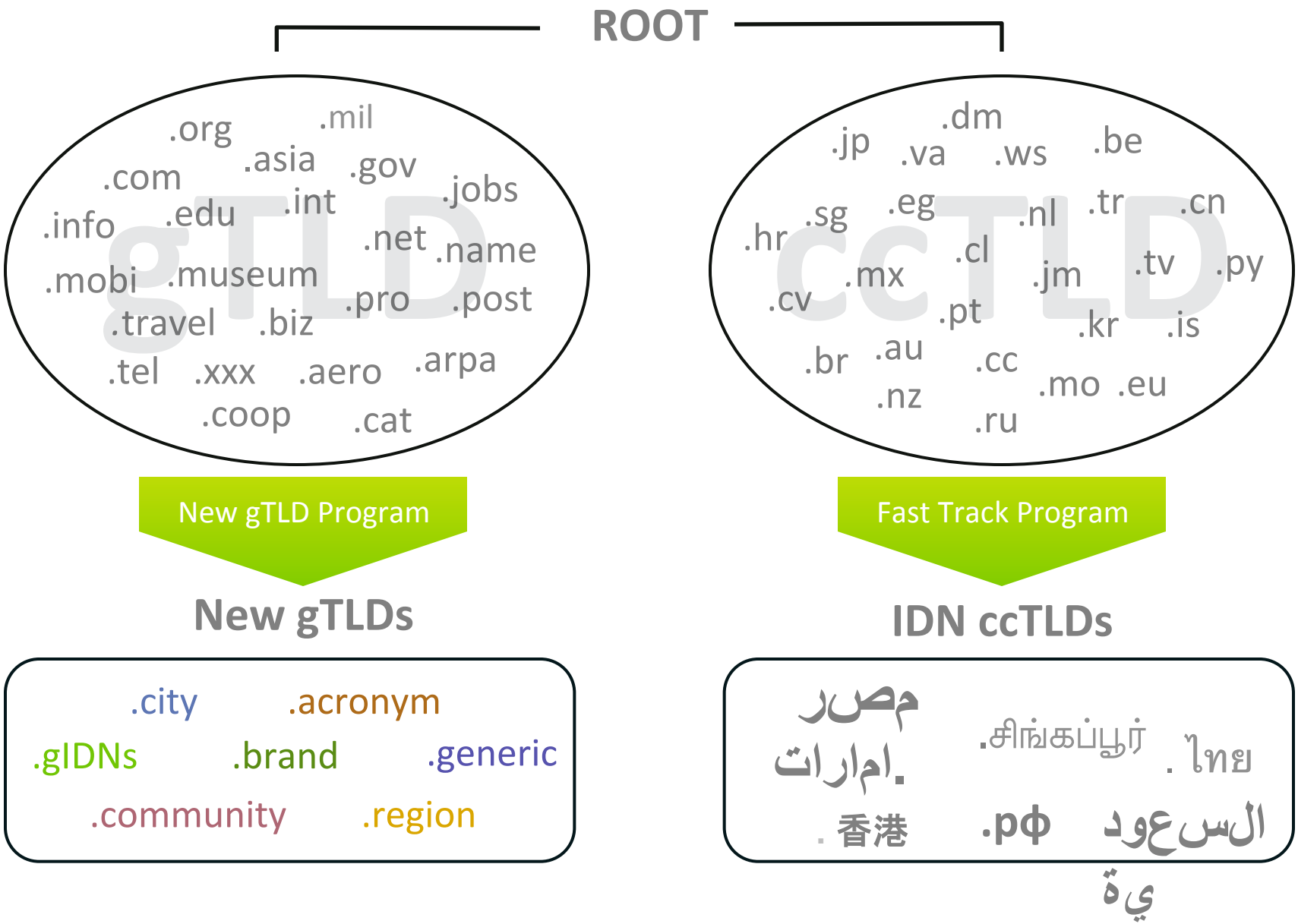
Industry Landscape


ROOT
gTLD
.org
.mil
.asia
.com
.gov
.int
.jobs
.info
.edu
.net
.name
.mobi
.museum
.pro
.post
.travel
.biz
.tel
.xxx
.aero
.arpa
.coop
.cat
ccTLD
.dm
.jp
.va
.ws
.be
.sg
.eg
.nl
.tr
.cn
.hr
.cl
.tv
.py
.mx
.jm
.cv
.pt
.kr
.is
.br
.au
.cc
.nz
.mo
.eu
.ru
New gTLD Program
Fast Track Program
New gTLDs
IDN ccTLDs
.city
.acronym
.gIDNs
.brand
.generic
.community
.region
مصر
.امارات
.சிங்கப்பூர்
. ไทย
. 香港
.ф
السعودية

gTLD Timeline

Pre dating ICANN (before 1998)

.com .edu .gov .int .mil .net .org .arpa

.aero .biz .coop .info .museum .name .pro

2000 Round

.asia .cat .xxx .jobs .mobi .tel .travel .post

2004 Round

New gTLD Program Policy development
Dec 2005 to Sep 2007

Public Participation and the Draft Applicant Guidebook

- October 2008 (version 1)
- May 2009 (excerpts)
- March 2009 (version 2)
- October 2009 (version 3)
- February 10 (excerpts)
- May 2010 (version 4)
- November 2010 (proposed final version)
- April 2011 Discussion Draft
- May 2011 Applicant Guidebook

Program Launch
12 January

ICANN Board Policy approval Jun 2008

Publication Complete Applicant Guidebook

June 13 - Reveal Date On-going status reporting on ICANN's website

Current Landscape

ccTLD Registries

ICANN

gTLD Registries

Registrars
gTLDs + some ccTLDs

Registrant

Resellers

Typical Registrants

- Small Businesses
- Large Brand Owners
- Individuals (for Personal Use)
- Domainers (Investment & Traffic Monetization Businesses)

Registrar Business Models

- Traditional Retail
- Reseller-Focused
- Low Cost / Limited Service
- Brand Protection
- Niche Markets
- Single TLD
- Private

Resellers

- Web Developers
- Web Hosts
- ISPs
- Domain Name Retailers (avoiding overhead of ICANN accreditation)
- Almost Anyone

Role of Reseller

- Click-Through Affiliates
  - no/minimal customer relationship with registrant
- Turn-Key
  - rebranding of registrar's website
  - most/all service provided by registrar
- Active Reseller
  - strong relationship with registrant
  - some RAA compliance responsibility possible
  - often tech savy, use APIs similar to EPP

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About Registries

What is a Registry?

A "Registry" is the authoritative, master database of all domain names registered in each Top-Level Domain. The registry operator keeps the master database and also generates the "zone file" which allows computers to route Internet traffic to and from top-level domains anywhere in the world.

Critical Registry Operator Functions

1. DNS resolution
2. DNSSEC properly signed zone (if DNSSEC is offered by the registry)
3. Shared Registration System (SRS), usually by means of the Extensible Provisioning Protocol (EPP)
4. Registration Data Directory Services (RDDS), e.g., WHOIS provided over both port 43 and through a web based service
5. Registry Data Escrow

Day To Day Management

1. Strategy & Marketing Management
2. Transactional Management
3. Technical Issues / Management
4. Staffing
5. Legal Issues

Transactional Management

- New Registrations
- Domain Management / Modifications
- Renewals
- Domain Transfers
- Billing/Payment Systems
- Outsourcing

Technical Issues

- APIs and Channel Interfaces
- DNS Management
- Automation
- Server Provisioning
- Redundancy
- Scale

Staffing

- Customer Service
- Staff Management
- Distribution/Management

Legal Issues

- End User Terms & Conditions
- Privacy Policy
- Acceptable Use Policy
- Reseller Terms
- Dispute Resolution
- Global Compliance

More than a Database and Software!

Must be designed and managed with security, stability, and robustness in mind

A Registry includes:

- Network infrastructure – firewalls, load balancers, routers, packet shapers
- Protocol and application servers
- DNS and WHOIS servers
- Billing systems
- Monitoring systems
- Security and intrusion detection systems

Data and Infrastructure Security

What does a Registry need to protect?

- SRS Database
- WHOIS Database
- DNS Infrastructure
- Billing and Financial Systems
- Web Servers
- Customer Relationship Management Systems

Security Considerationa

- Security Policy
- Security Organization
- Personnel Security Policies
- Physical and Environmental Security
- Operations and Communications
- Entitlements Management (Info access)
- System development and Maintenance (Production Support)
- Security Incident Management
- Continuity of Business (COB)
- Auditing

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What to Expect in the Near Future?

Potential and Considerations

- New gTLDs – diversity, innovation!
- New Players
- Vertical Integration
- Success and failure
- TLD Acceptance issues

Emergency Back-End Registry Operator

EBERO

- Organization partnered w/ ICANN
- Provides critical registry services in emergency situations
- To ensure continuity of services

TLD Acceptance Issues

- What do you do if your TLD is open and available, but Internet users cannot access it?
- What if your registrants host their web site on your TLD, but their customers are unable to use it?
- What happens when your ISP “automatically” blocks access to your entire TLD?

What can go wrong?

- Web sites that require registrations do not accept your TLD extension
- Legal and other contract terms do not recognize your TLD extension
- Emails don't reach destinations
- Web browsers automatically reject your TLD
- Operating systems do not allow your name to be used online
- Security applications block access to your TLD from computers
- Anti-spam software marks your TLD as "not-trusted"

How to improve TLD acceptance?

- Technical work
- Public Relations work
- ICANN outreach
- Connect with ISPs, Network Service providers
- Single biggest factor: Usage of your TLD by real users
- Takes years!

Registry has a significant role in promoting acceptance of the TLD

Thank You