

# Update on Root Zone Management

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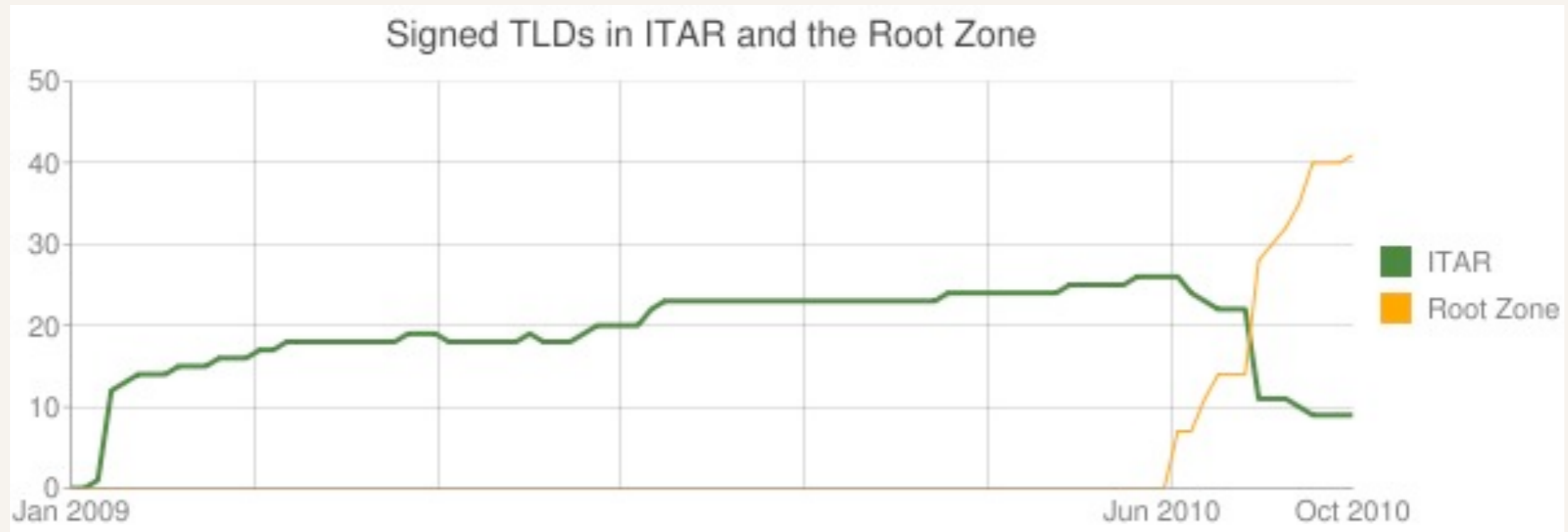


Internet Corporation for  
Assigned Names & Numbers

# DNSSEC

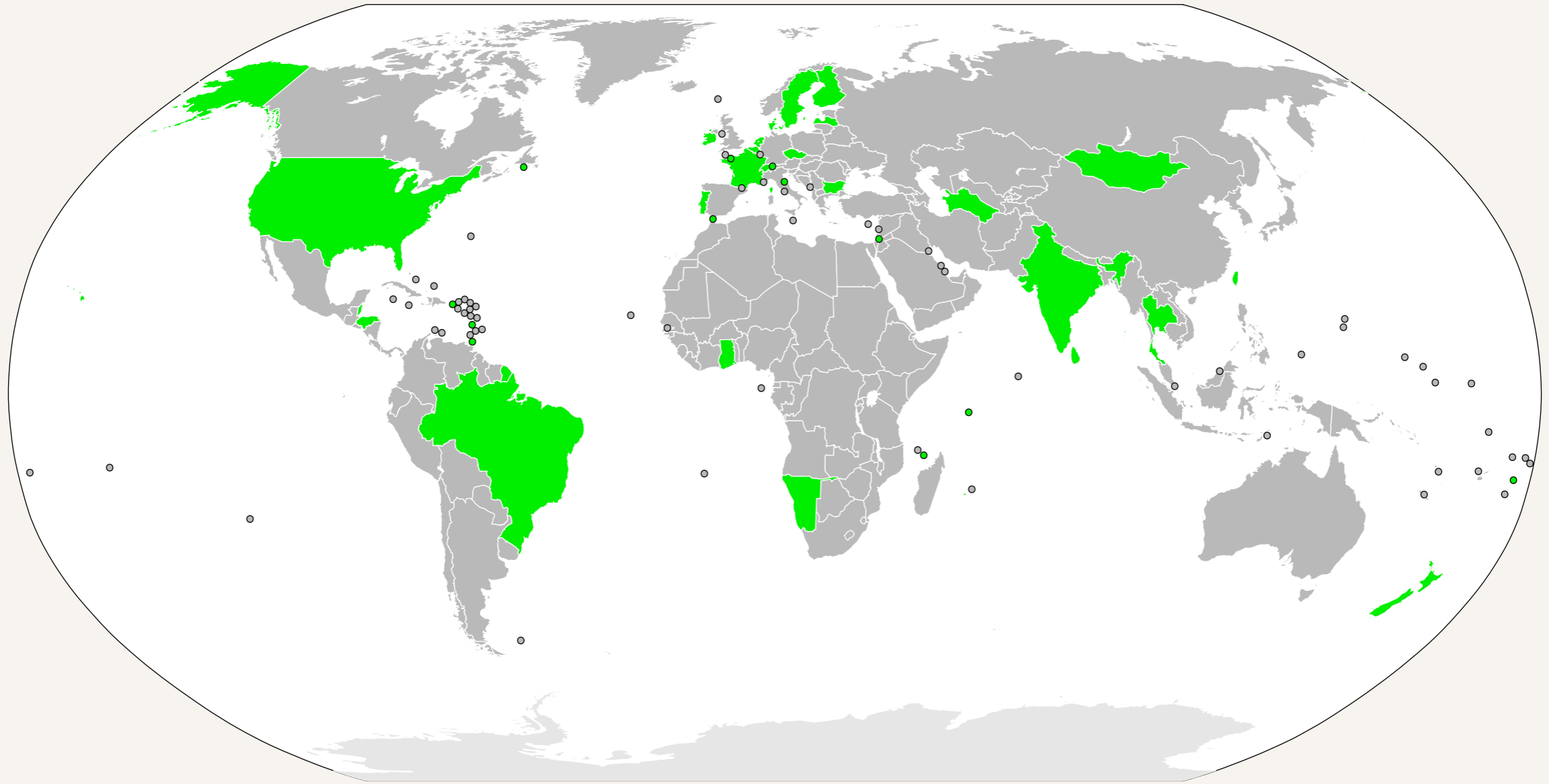
# DNSSEC

- ▶ Root Zone was signed July 15.
- ▶ First few months saw rapid adoption of signed root zone, quickly surpassed ITAR usage.
- ▶ In October, ITAR retirement announced. All listings removed 18 November 2010.
- ▶ On 30 November 2010, the root zone had 60 signed TLDs.



## Adoption of ITAR and signed root

- ▶ [http://stats.research.icann.org/dns/tld\\_report/](http://stats.research.icann.org/dns/tld_report/)



# Signed ccTLDs

# IANA Process

- ▶ DS records treated similarly to NS records.
- ▶ ccTLD managers request DS records to be added or removed using regular template and root zone change process.
- ▶ ICANN checks if matching DNSKEY record exists in TLD zone. If not found, consult with TLD manager.
  - ▶ Usually an error, but could be by design depending on TLD.

# Things we've learned

- ▶ Current agreed technical checks may miss some DNSSEC configuration issues. For example, if there is a configuration incompatible with DNSSEC on a single name server, the current technical checks will not identify the misconfiguration.
- ▶ As we've done in the past, we will open conversations with the community to evaluate the appropriate technical checks for DS records.



**EVERYTHING  
WENT  
BETTER  
THAN  
EXPECTED**



# Workflow Automation

# Workflow Automation

- ▶ Project to automate the workflow of routine root change tickets is dangerously close now!!!!!!
  - ▶ Does not change the process, but rather than being tracked manually, workflow state is maintained online.
  - ▶ Adds the ability for TLD managers to submit change requests using web interface, while keeping current system operational (i.e., text template submitted via email).
  - ▶ ICANN will communicate with VeriSign using EPP, rather than current manual process.

# Workflow Automation

- ▶ During ICANN Sydney meeting, we commenced “parallel” deployment, but ran into a mission critical issue that stopped process.
- ▶ DNSSEC became a higher priority in 2009, and work on automation became a lower priority until the root was signed in July 2010.
- ▶ New system now supports DNSSEC and.....

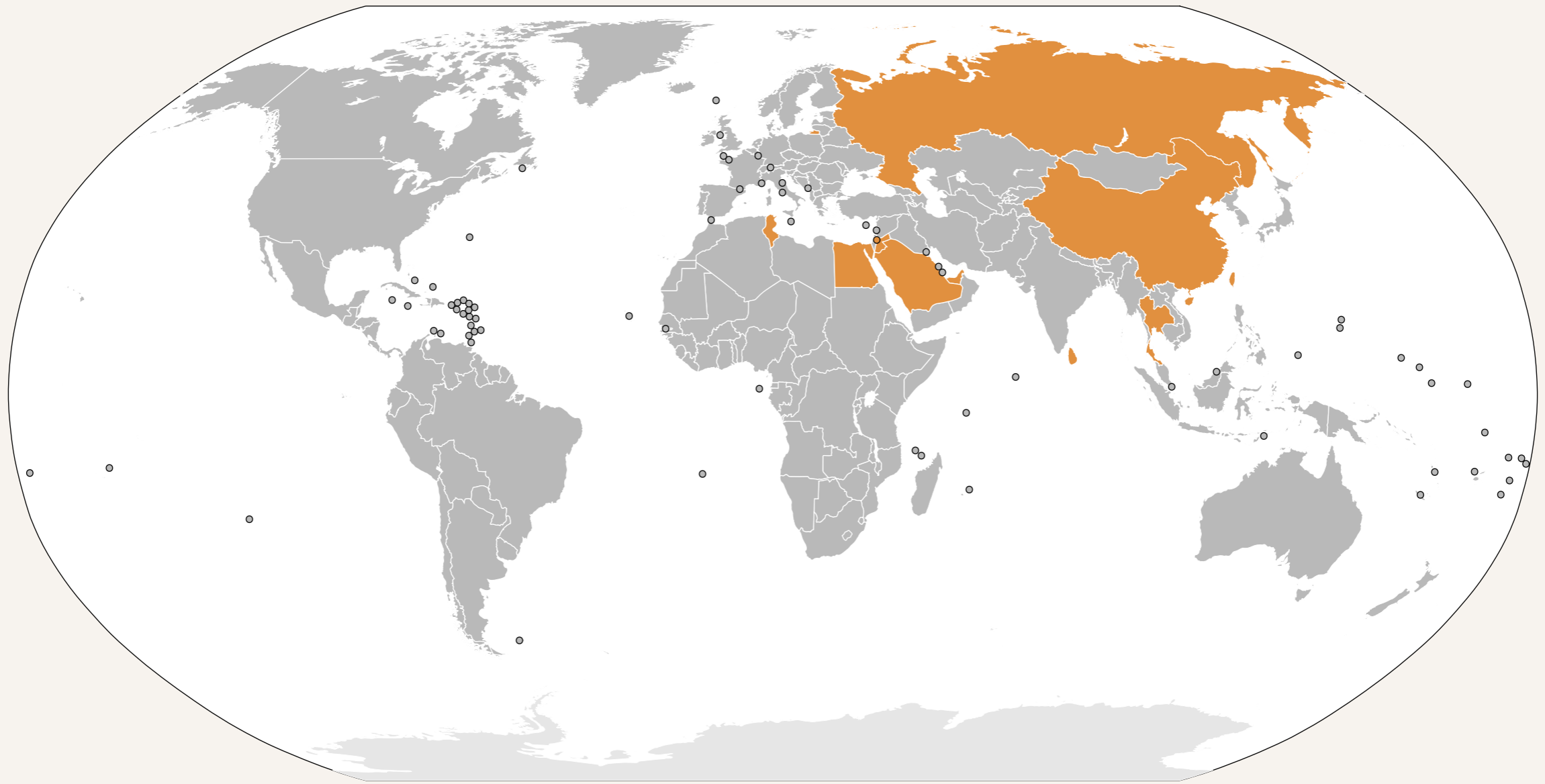
# Parallel Testing Underway

- ▶ We have been running requests in the test environment parallel to the production system for many months and have gained confidence in the automated system.
- ▶ A formal period of parallel operations is now ongoing to qualify the system for final deployment.
- ▶ Production deployment dependent on 60 days of 100% consistency between the parallel systems.
- ▶ With successful completion of parallel testing, we'll inform the community of deployment.

# After Deployment - next steps

- ▶ Work on credential distribution for new web interface.
- ▶ Provide education on how the system works.
- ▶ Gather user feedback for v2.

# IDN ccTLDs



# Countries with IDN ccTLDs

- ▶ 15 TLDs representing 12 countries

# IDN ccTLDs

- ▶ Staff continue to process delegation requests for IDN ccTLDs.
- ▶ Rate of applications seems to be slowing.
- ▶ Board has asked the Board IANA committee to refine the process to address a number of concerns. IANA committee is working on process improvement recommendations.



# What we've learned

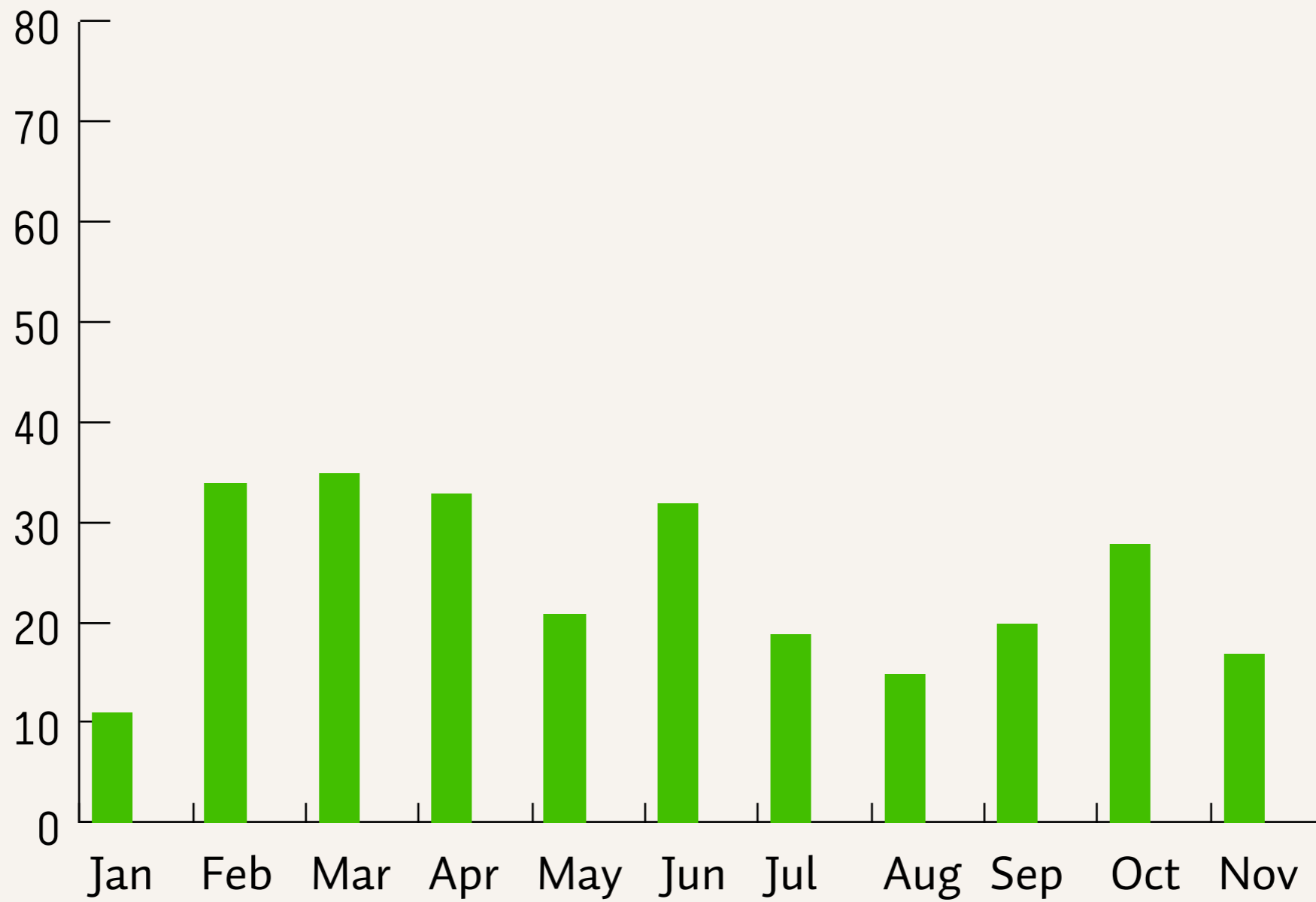
- ▶ Applicants confuse criteria for IANA delegation process with fast track string evaluation.
  - ▶ Both processes have government and local community support requirements. The criteria for string evaluation and the IANA process are different.
  - ▶ We have enhanced our upfront communication to better define the differences between the criteria.
- ▶ Fast Track process has highlighted the need to better document the IANA delegation process.

# Root Documentation

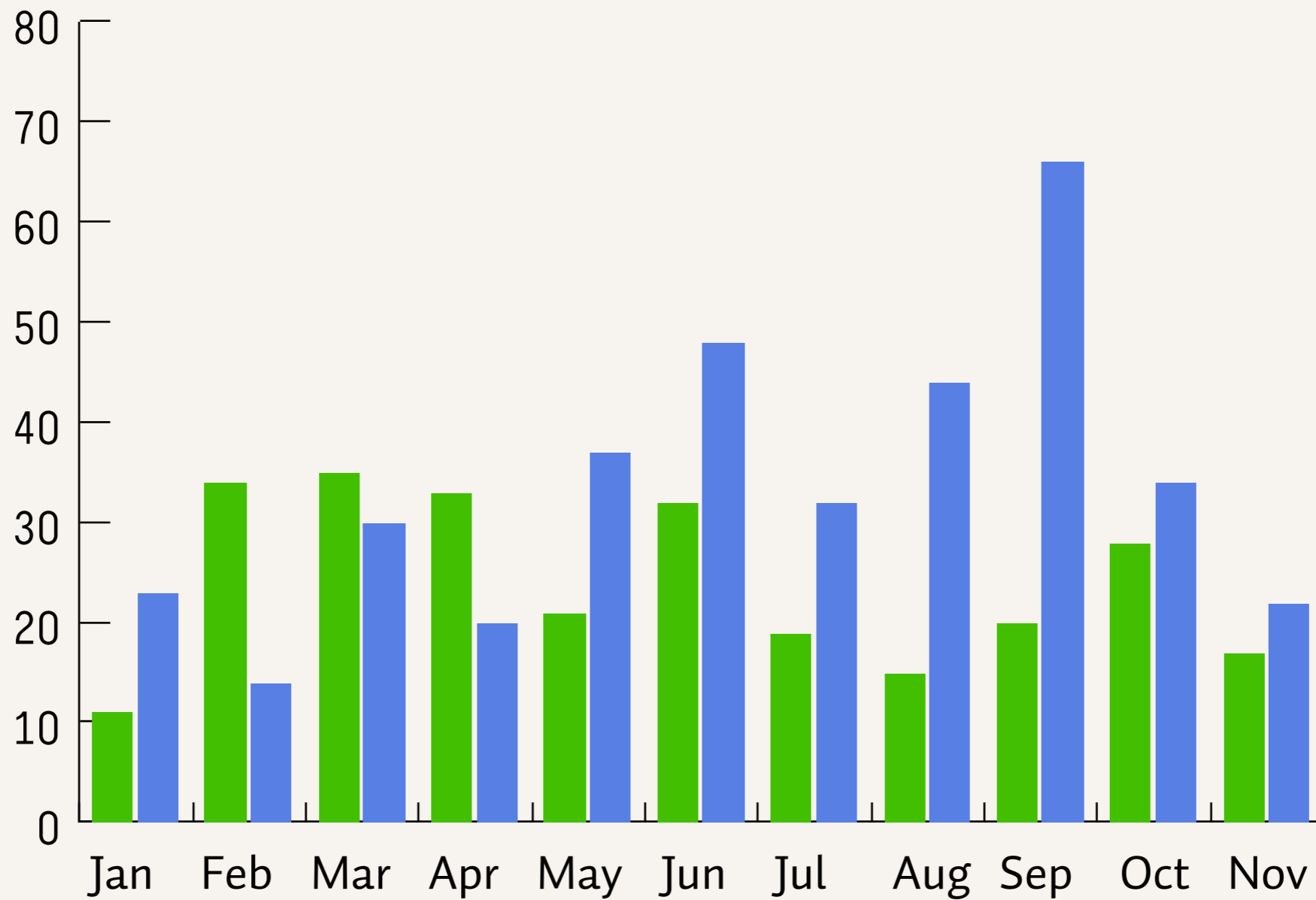
# Root documentation

- ▶ Initial drafts of improved root zone documentation shared with ccNSO Redelegation WG in late-2009 for informational purposes.
- ▶ Initial drafts have undergone several iterations of review and revisions.
- ▶ Expect to share final draft of “Guide to delegating/redelegating country-code top-level domains” with ccNSO for informational purposes prior to publication.

# Workload



Total Root Change Requests (Jan-Nov 2009): **265**



Total Root Change Requests (Jan-Nov 2009): **265**

Total Root Change Requests (Jan-Nov 2010): **370**

(40% increase)

Gracias  
Thanks  
شكرا  
Спасибо