

# Update on Root Zone Management

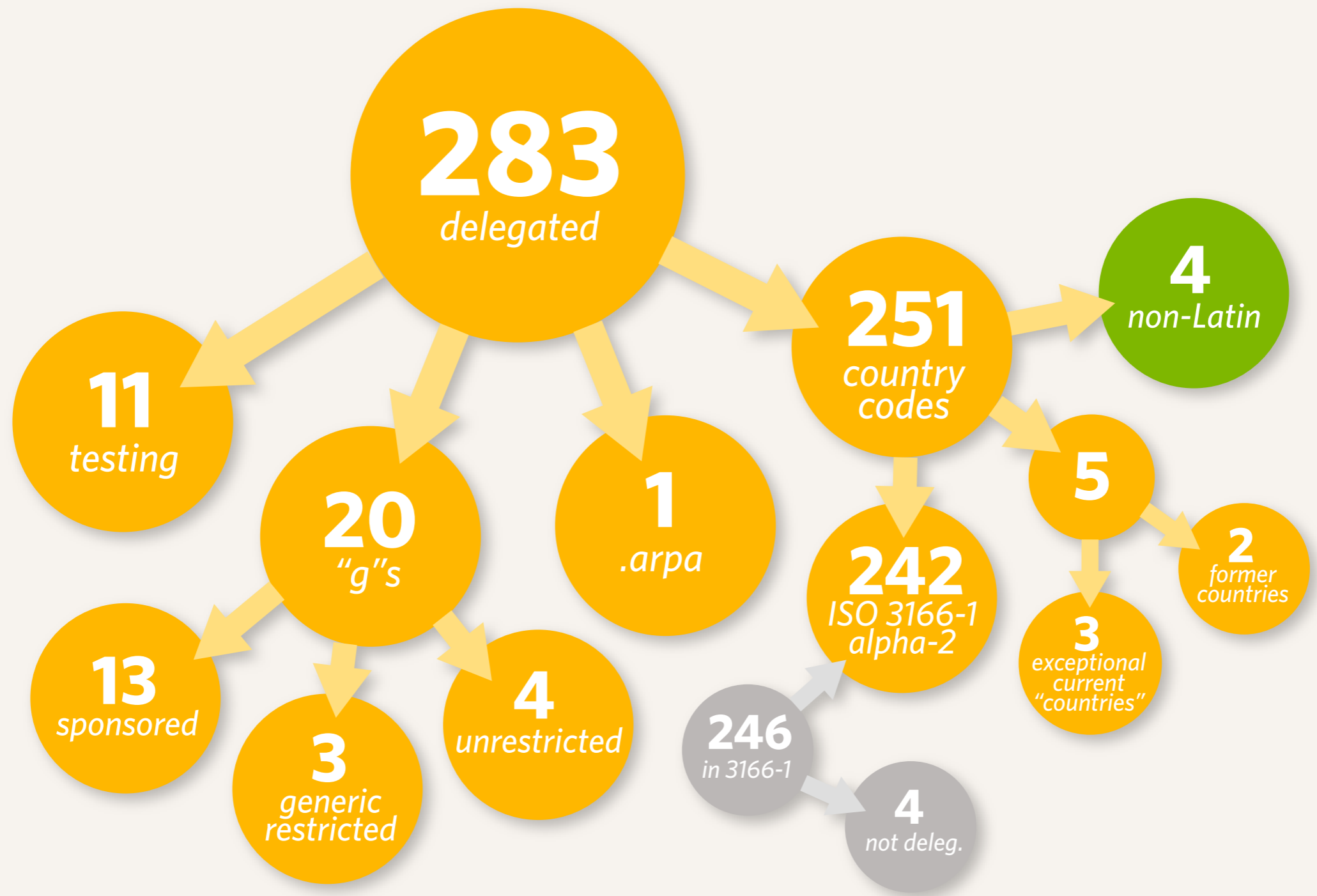
Kim Davies

Manager, Root Zone Services



Internet Corporation for  
Assigned Names & Numbers

**IDN ccTLDs**



# What we've done

- ▶ Delegated 4 IDN ccTLDs
- ▶ So far well exceeded our standard processing times
  - ▶ “3-6 months” for standard request once comprehensive satisfactory application is lodged
  - ▶ So far, staff processing typically complete within a few weeks of submission of all requested documents
- ▶ Without sacrificing quality

# What we've learned

- ▶ Applicants don't contact us prior to application about process
  - ▶ Within country a process may be conducted based on assumptions of the delegation process that may or may not be correct.
  - ▶ This is very different to ASCII ccTLD delegation/redelegation where there is lots of dialogue over the months/years prior.
  - ▶ The model works best if it is collaborative and iterative.
  - ▶ Many are surprised by the process (it is more detailed than the string selection process, requires Board approval, etc.)

ICANN Requestors Manual has no indication that ICANN requires supporting documents evidencing community support for a proposed ccTLD manager. Although such requirement was mentioned in the Final Implementation Plan.

It is likely that ICANN believes it is sufficient for the applicant to show that the Government supports the application and has nominated [the organization] to be the ccTLD manager.

Therefore, evidence for community endorsement is not required for [the organization] to administer [the domain] is not required for our application to ICANN."

# What we've learned (2)

- ▶ Lack of understanding of the process
  - ▶ Standard root zone management process applies
    - ▶ implementation involved NTIA and VeriSign

# The “fast” track

- ▶ The root zone management partners (ICANN, NTIA and VeriSign) worked faster than normal, after applicants expressed a desire for quick delegations
- ▶ At least one applicant was “surprised” by the swiftness



# Avoiding weekends

- ▶ One applicant expressed unhappiness that delegation was performed “on a weekend”
- ▶ Executed approximately Wednesday 6am LA time
- ▶ Referred them to the ccNSO
  - ▶ We don't control timing, but if ccTLDs have consensus approach on embargoing or delaying root zone changes, we'd relay that desire to appropriate parties.

# What we're doing

- ▶ Processing many more delegation requests due to Fast Track
- ▶ Last week 46 active root zone change requests — a record!
- ▶ Continuing to pursue publication of more documentation
- ▶ Encourage prospective applicants to liaise with ICANN IANA staff prior to submission, to avoid incorrect assumptions
- ▶ Looking at staffing as we see more applications, and foresee new gTLDs coming along

**New WHOIS Server**

IANA Whois Service

Domain: xn--zckzah

ID: xn--zckzah

Sponsoring Organization:

Name:

Organization: Internet Assigned Numbers Authority

Address1: 4676 Admiralty Way

Address2: Suite 330

Address3:

City: Marina del Rey

State/Province: California

Country: United States

Postal Code: 90292

Phone:

Fax:

Email:

Registration Date: 01-January-1985

Last Updated Date: 18-June-2007

Administrative Contact:

Name:

Organization: Internet Assigned Numbers Authority

Address1: 4676 Admiralty Way

Address2: Suite 330

Address3:

City: Marina del Rey

State/Province: California

Country: United States

Postal Code: 90292

Phone: +1 310 823-9358

Fax: +1 310 823-8649

Email: [iana@iana.org](mailto:iana@iana.org)

Registration Date: 01-January-1985

Last Updated Date: 01-January-1985

% IANA WHOIS server  
% for more information on IANA, visit <http://www.iana.org>  
% This query returned 1 object

domain: テスト  
domain-ace: XN--ZCKZAH

organisation: Internet Assigned Numbers Authority  
address: 4676 Admiralty Way  
address: Suite 330  
address: Marina del Rey California 90292  
address: United States

contact: administrative  
organisation: Internet Assigned Numbers Authority  
address: 4676 Admiralty Way  
address: Suite 330  
address: Marina del Rey California 90292  
address: United States  
phone: +1 310 823-9358  
fax-no: +1 310 823-8649  
e-mail: [iana@iana.org](mailto:iana@iana.org)

contact: technical  
organisation: Internet Assigned Numbers Authority  
address: 4676 Admiralty Way  
address: Suite 330  
address: Marina del Rey California 90292  
address: United States  
phone: +1 310 823-9358  
fax-no: +1 310 823-8649  
e-mail: [iana@iana.org](mailto:iana@iana.org)

nserver: A.IANA-SERVERS.NET 192.0.34.43  
nserver: B.IANA-SERVERS.NET 193.0.0.236

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IDN support

RPSL-style notation

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```

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domain:          テスト
domain-ace:      XN--ZCKZAH
```

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organisation:   Internet Assigned Numbers Authority
address:        4676 Admiralty Way
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address:        Marina del Rey California 90292
address:        United States
```

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contact:        administrative
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address:        4676 Admiralty Way
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organisation: Internet Assigned Numbers Authority  
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nserver: A.IANA-SERVERS.NET 192.0.34.43  
nserver: B.IANA-SERVERS.NET 193.0.0.236  
nserver: C.IANA-SERVERS.NET 139.91.1.10 2001:648:2c30:0:0:0:1:10  
ds-rdata: 46069 5 2 DA79DAC649FA22E4E67AA9BE3C0DEECE07216640277406E6

remarks: Registration information:  
remarks: <http://www.iana.org/domains/idn-test/>

created: 2007-10-19  
changed: 2009-10-12  
source: IANA

## DNSSEC support



Accepts any domain

# ... and Number Resources

- ▶ IPv4 allocations
- ▶ IPv6 allocations
- ▶ AS numbers
- ▶ specific numbers and range support
- ▶ converts 6to4, TEREDO, GLOP etc. addresses
- ▶ referrals to RIR WHOIS servers
- ▶ references to RFCs for special allocations

# Signing the Root

# Where we are at

- ▶ Now accepting DS records
- ▶ Key Signing Key generated at a “Key Ceremony”.
- ▶ Root Zone signed, published as “deliberately unvalidatable” prior to full launch.

# Key Ceremony

*“A ceremony lasts several hours (7-ish in our case) and combines the scripted predictability of a Broadway show, the detail-oriented pedantry of a pilot's checklist, and the excitement of watching paint dry (brand spankin' new facility even smelled like paint). It's choreographed to the nines, with signoff and timestamp on pretty much every single step.”*

# NOTICE

ALL EMPLOYEES AND  
VISITORS MUST WEAR  
IDENTIFICATION BADGES

# NOTICE

UNAUTHORIZED  
PERSONS  
NOT PERMITTED  
BEYOND THIS POINT

# NOTICE

NO FOOD  
OR DRINK  
BEYOND THIS POINT

# NOTICE

TURN OFF   
CELLULAR PHONES,  
PAGERS AND  
OTHER WIRELESS DEVICES

# NOTICE

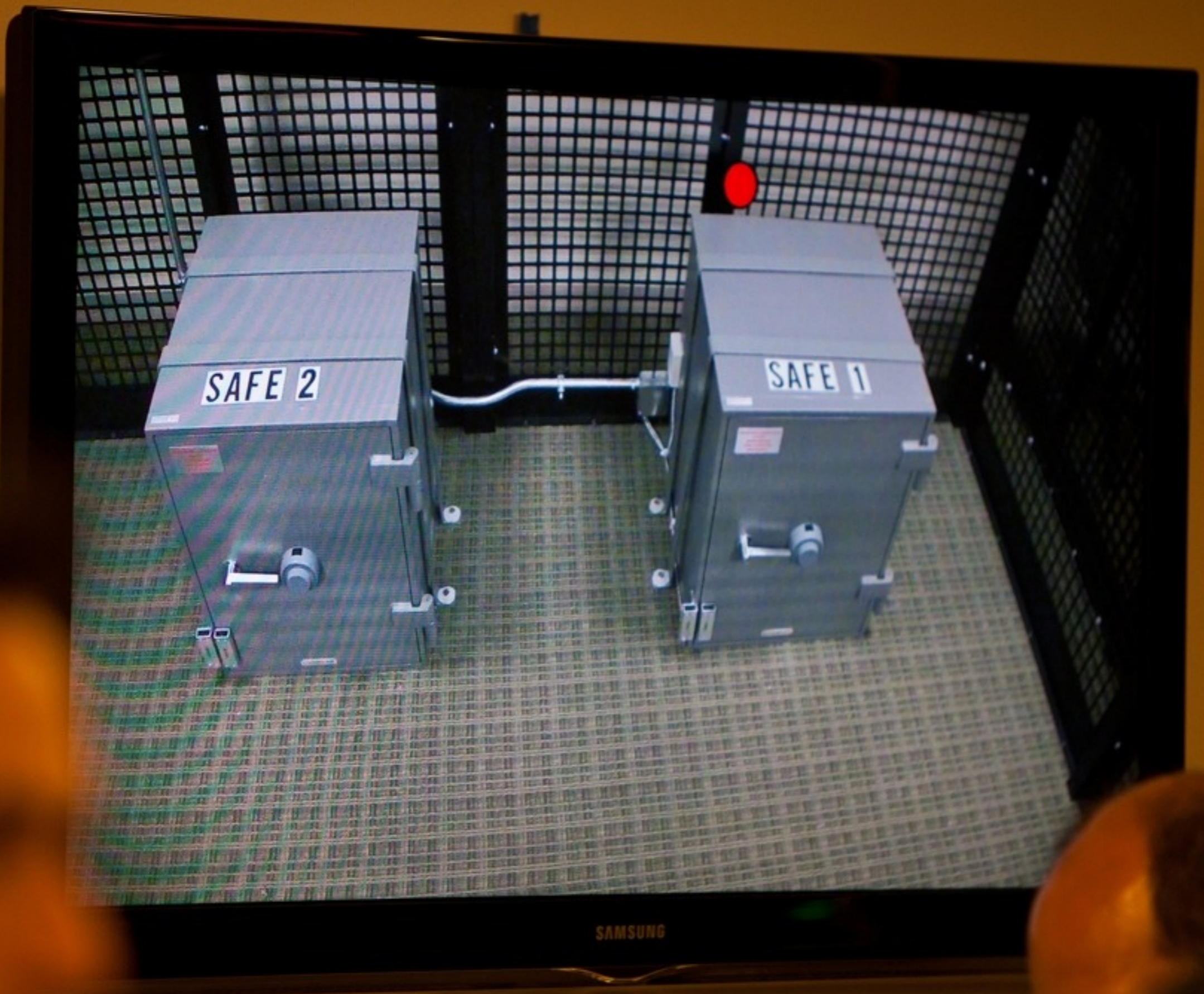


NO FIREARMS  
OR WEAPONS  
ALLOWED ON  
THIS PROPERTY.









SAFE 2

SAFE 1

SAMSUNG



 aep  
[www.aepmedical.com](http://www.aepmedical.com)

KIA dd



```
Applications Places System
File Edit View Terminal Tabs Help
root@localhost:/media/HSMFD 9:29 PM
rtt min/avg/max/mdev = 0.256/0.434/0.965/0.306 ms
[root@localhost HSMFD]# kskgen
Starting: kskgen (at Wed Jun 16 21:19:06 2010 UTC)
Use HSM /opt/dnssec/aep.hsmconfig?
Activate HSM prior to accepting in the affirmative!! (y/N): y
HSM /opt/dnssec/aep.hsmconfig activated.
[debug] setenv KEYPER_LIBRARY_PATH=/opt/dnssec
[debug] setenv PKCS11_LIBRARY_PATH=/opt/Keyper/PKCS11Provider/pkcs11.GCC4.
0.2.so.4.07
Found 1 slots on HSM /opt/Keyper/PKCS11Provider/pkcs11.GCC4.0.2.so.4.07
HSM slot 0 included
Loaded /opt/Keyper/PKCS11Provider/pkcs11.GCC4.0.2.so.4.07 Slot=0
HSM Information:
Label: ICANNKSK
ManufacturerID: AEP Networks
Model: Keyper Pro 0405
Serial: K6002013

Generating 2048 bit RSA keypair...
```



### The Internet Corporation for Assigned Names and Numbers

Account: kasper (at) web (dot) de 14 21:19:34 2013 UTC  
Use 'idm' (apt/remote/weg-destination)  
idm' (apt/remote/weg-destination) activated.

server /usr/share/nginx/html/remote/weg-destination  
server /usr/share/nginx/html/remote/weg-destination  
server /usr/share/nginx/html/remote/weg-destination  
server /usr/share/nginx/html/remote/weg-destination  
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ICANN Support Center  
San Francisco, CA 94107  
Tel: 1-877-889-2424  
http://www.icann.org



ICANN

TERREMARK VISITOR

Root Zone DNS  
KSK Ceremony  
June 16  
ICANN





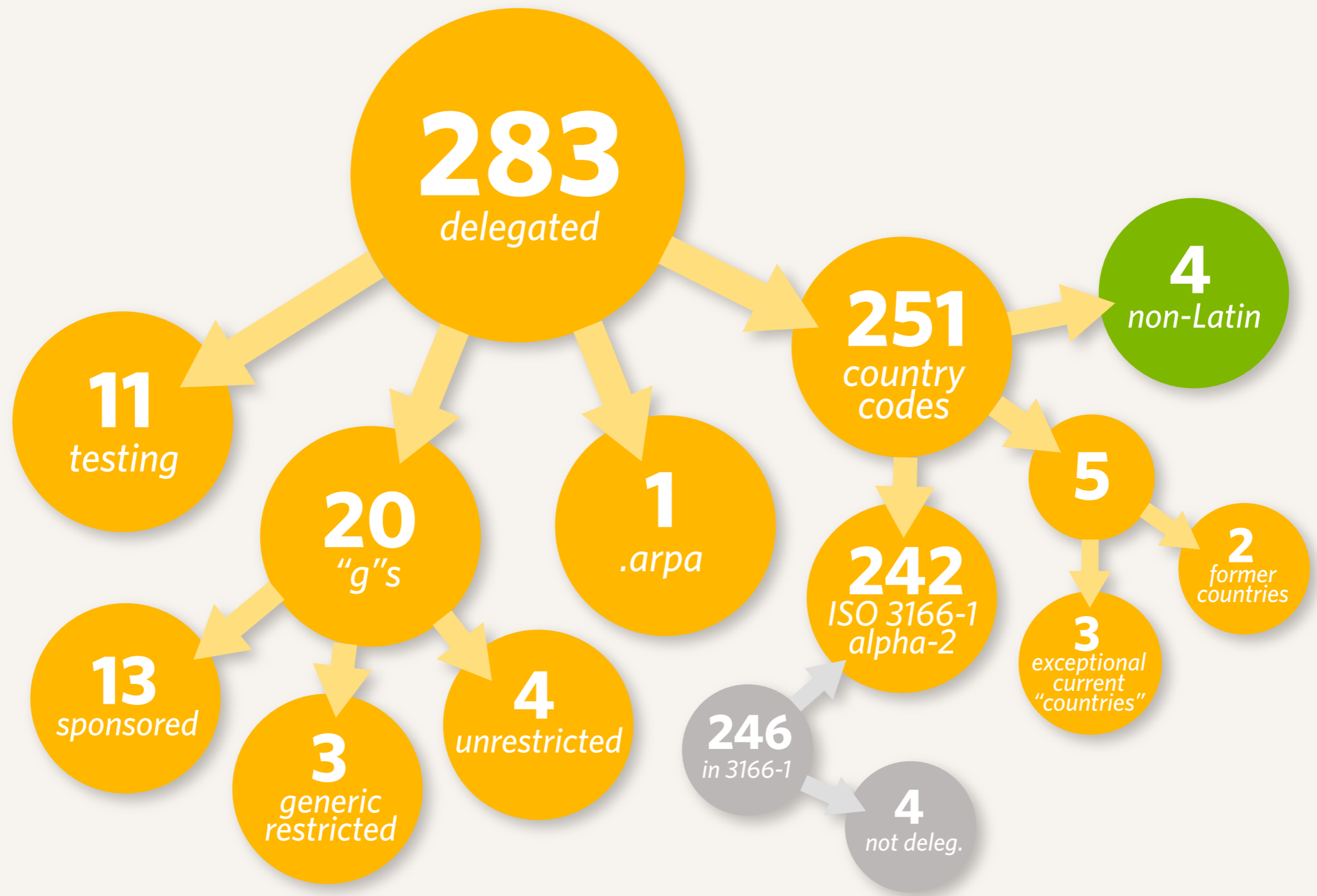


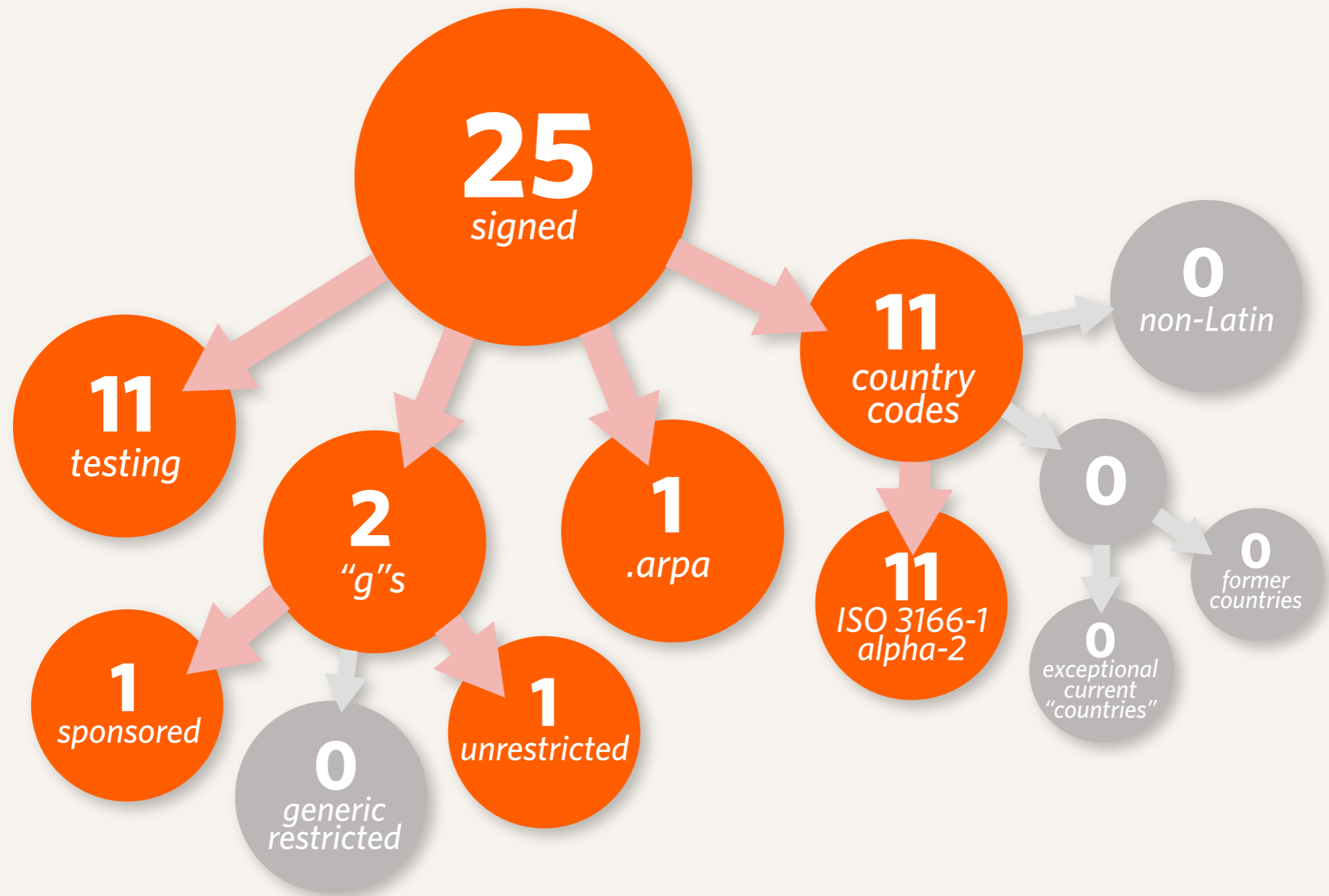


# *Video Presentation*

# What now

- ▶ TLDs using DNSSEC can submit their DS records at any time
  - ▶ Expanded template on [www.iana.org](http://www.iana.org)
  - ▶ Process the same as other root zone changes
- ▶ Removal of the “DURZ” estimated for 15 July







[http://www.iana.org/procedures/  
root-dnssec-records.html](http://www.iana.org/procedures/root-dnssec-records.html)

**Finally...**