Update for TLD managers

Nairobi, Kenya
March 2010

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Manager, Root Zone Services

Internet Corporation for
Assigned Names & Numbers

Technical Conformance Update

One year later

- A year ago, we brought our minimum technical criteria for root zone changes up to date
- Started monitoring several aspects of TLD management, like IPv4 and IPv6 network diversity
- More routinely flagged such issues to TLD managers during processing

None 1 2 3 4+

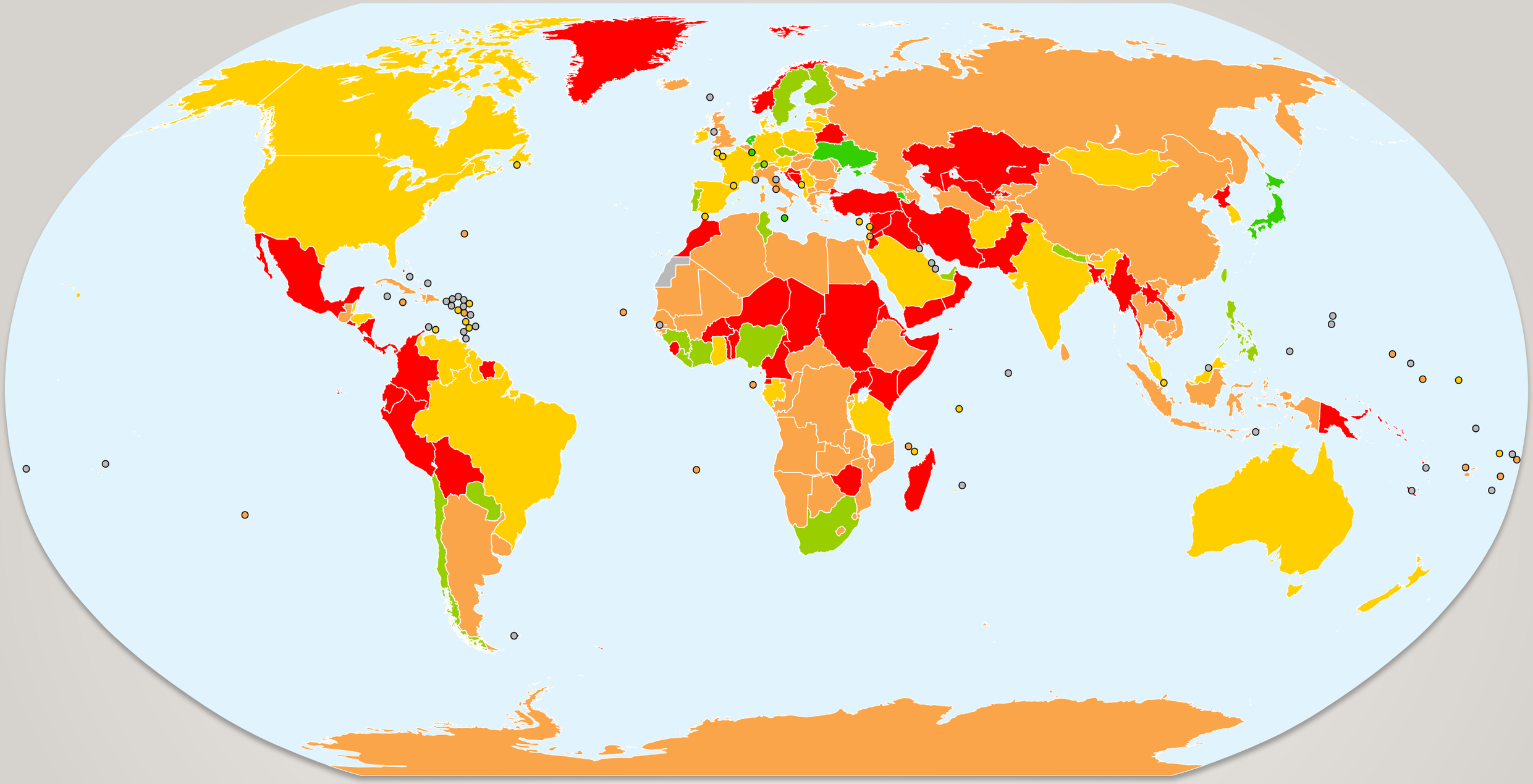
ccTLDs with AS diversity (2009)

As at 1 March 2009

None 1 2 3 4+

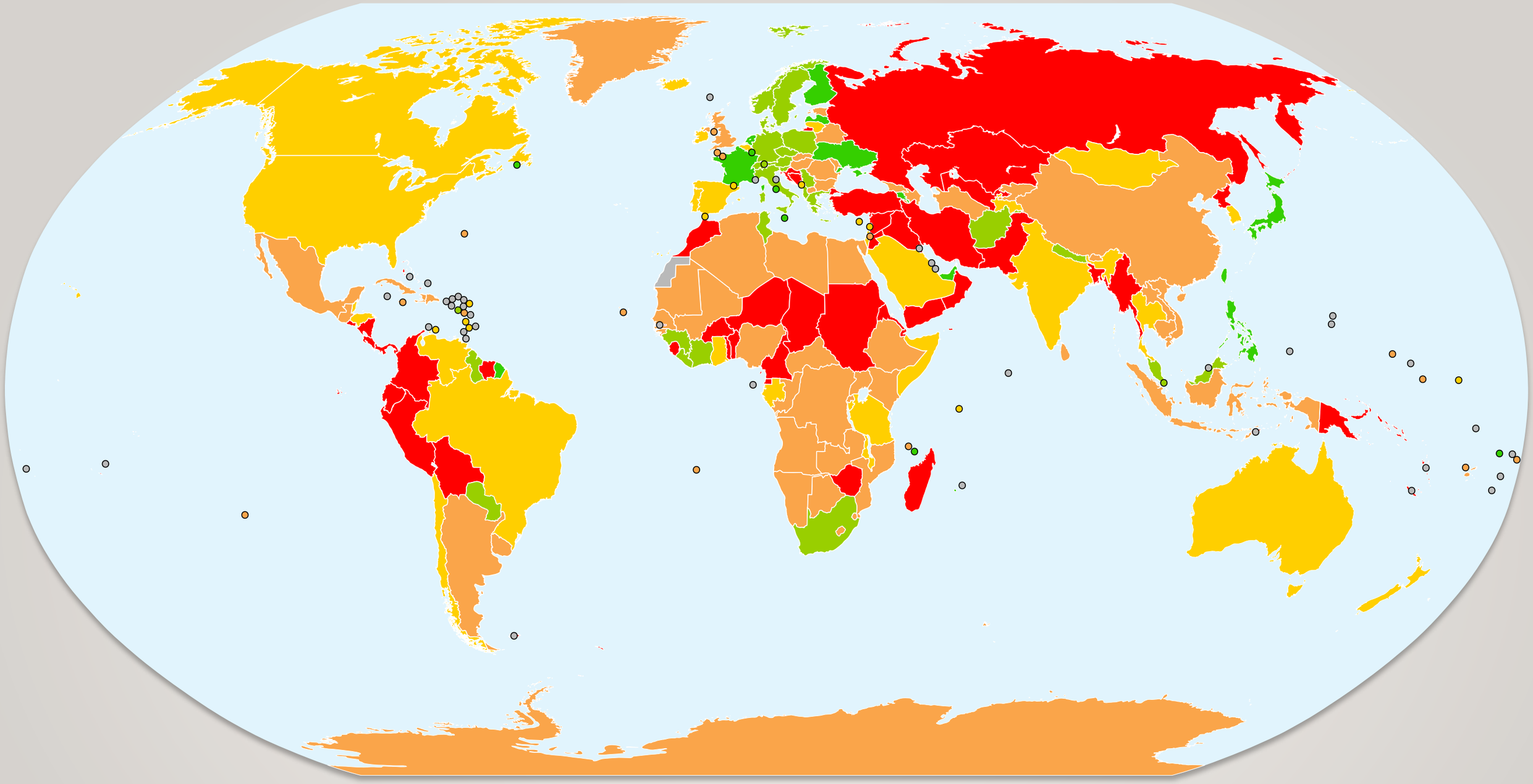
ccTLDs with AS diversity (2010)

As at 1 March 2010



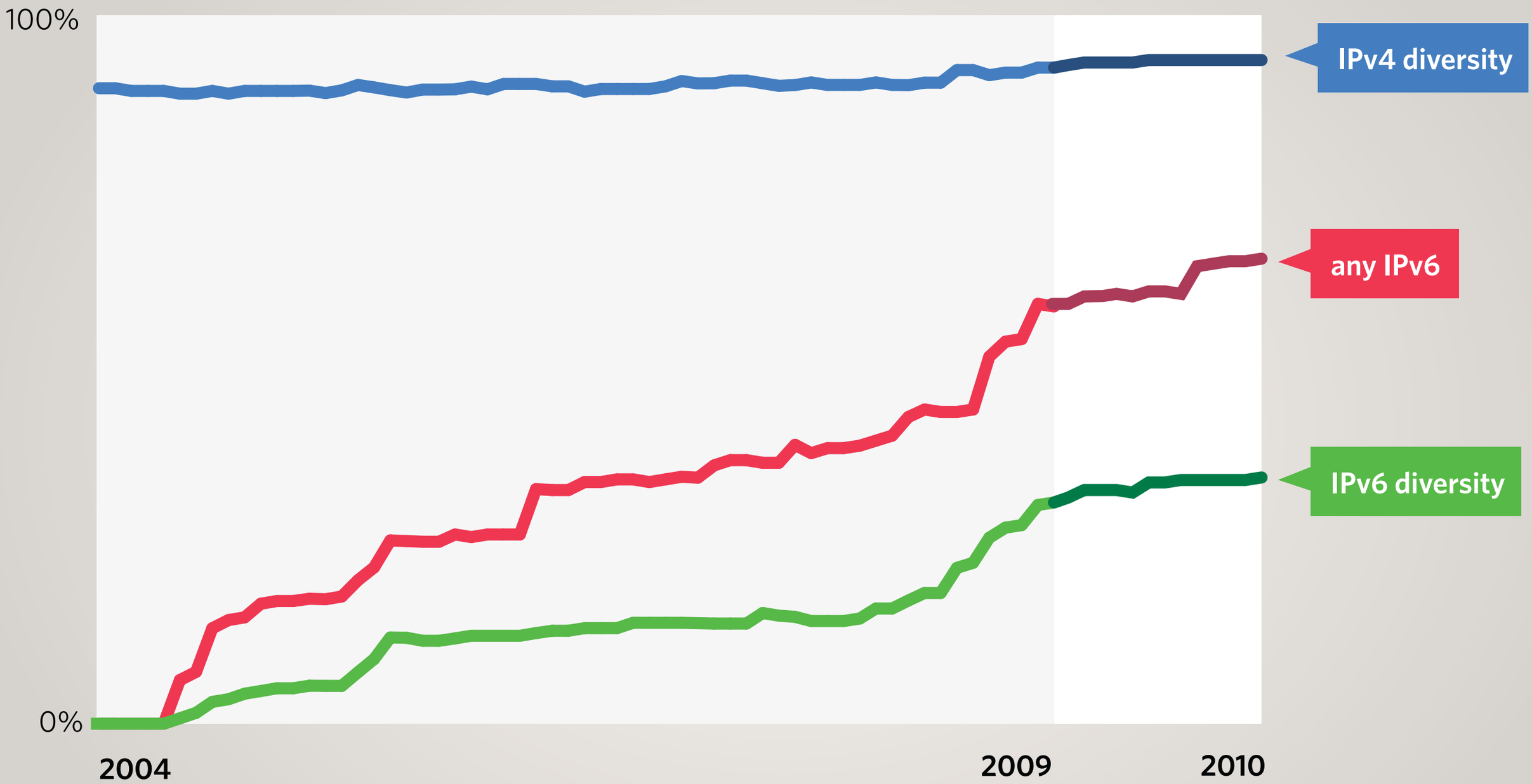
ccTLDs w/ AS diversity over IPv6 (2009)

As at 1 March 2009



ccTLDs w/ AS diversity over IPv6 (2010)

As at 1 March 2010


100%
IPv4 diversity
any IPv6
IPv6 diversity
0%
2004
2009
2010

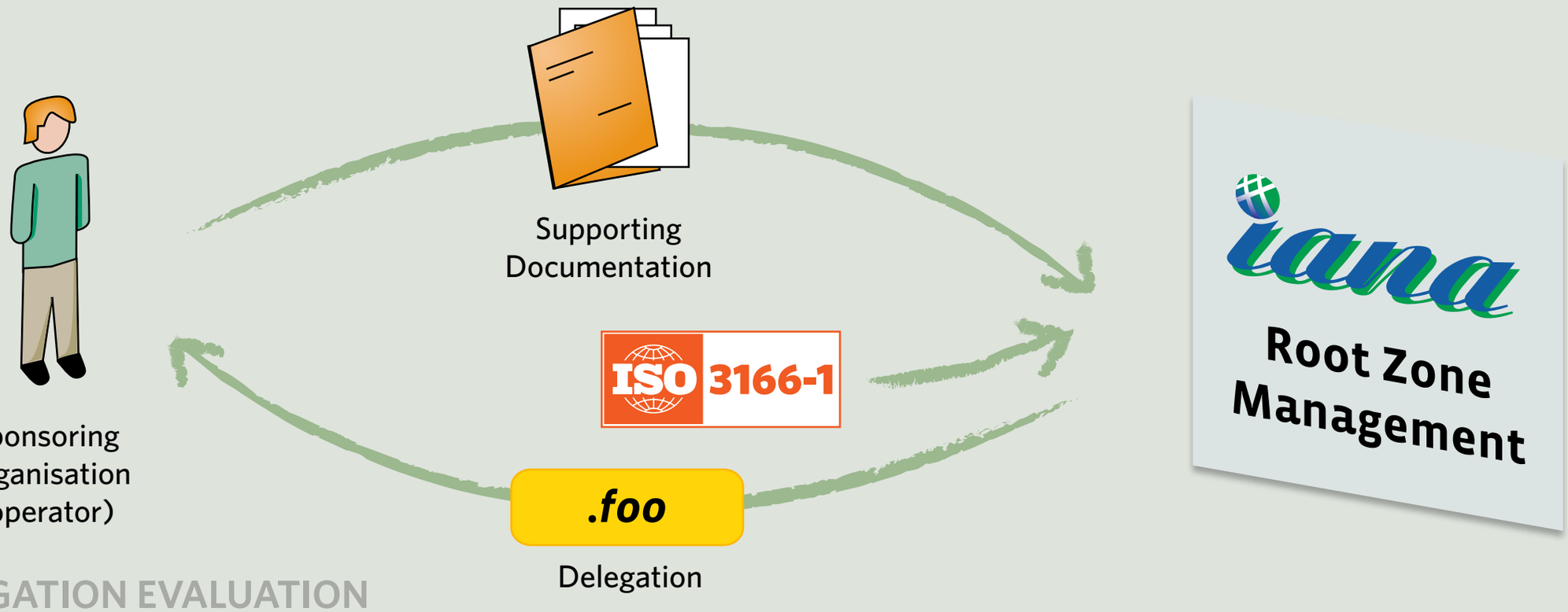
The bottom line

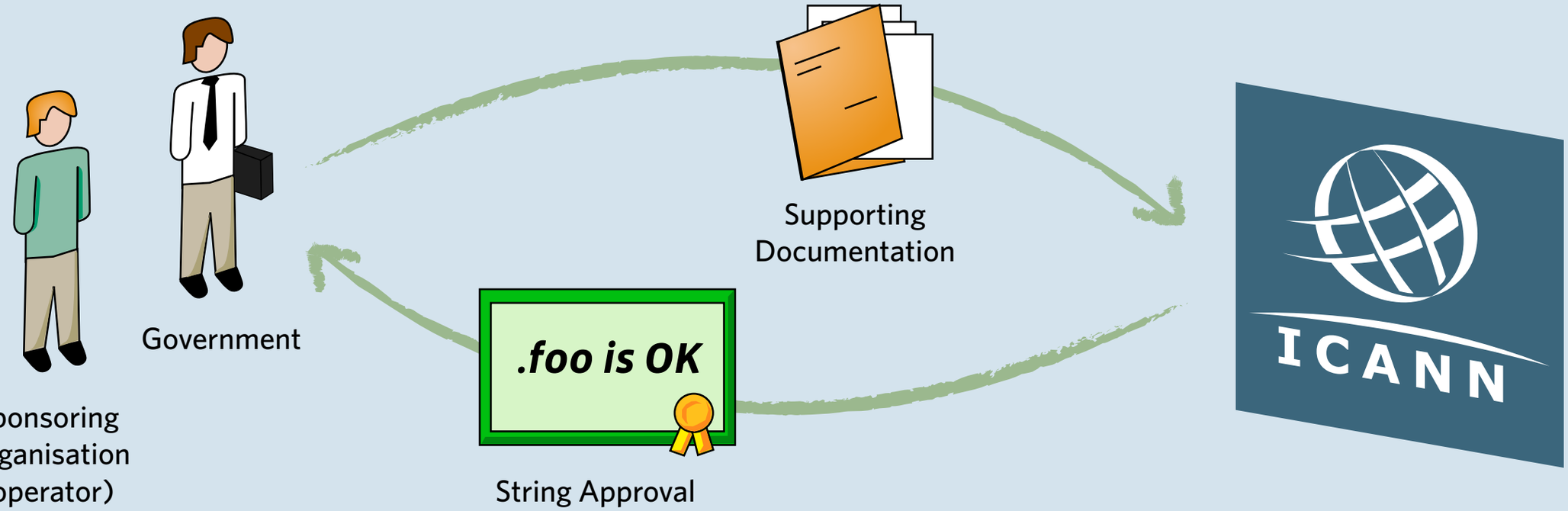
	2009	2010
TLDs with open recursive name servers	9.6%	10.3%
TLDs without diverse IPv4 connectivity	7.2%	6.4%
TLDs without diverse IPv6 connectivity	68.7%	65.5%
... without *any* IPv6	41.0%	34.5%
TLDs with referrals that can fragment	4.3%	8.9%

IDN ccTLD Fast Track

Update

- 19 applications received for string selection
- 4 applications received for domain delegation (IANA process)
- Confusion — some expect the delegation process is the same as string selection.


Supporting
Documentation
ISO 3166-1
.foo
Delegation
Sponsoring
Organisation
(operator)
iana
Root Zone
Management
DELEGATION EVALUATION



STRING EVALUATION

DELEGATION EVALUATION

Phase 1

can we use "ελ" to represent "Greece"?

evaluation performed by
new ICANN team w/ outside experts

new eligibility criteria,
new process (web form)

minimum 2 weeks

Phase 2

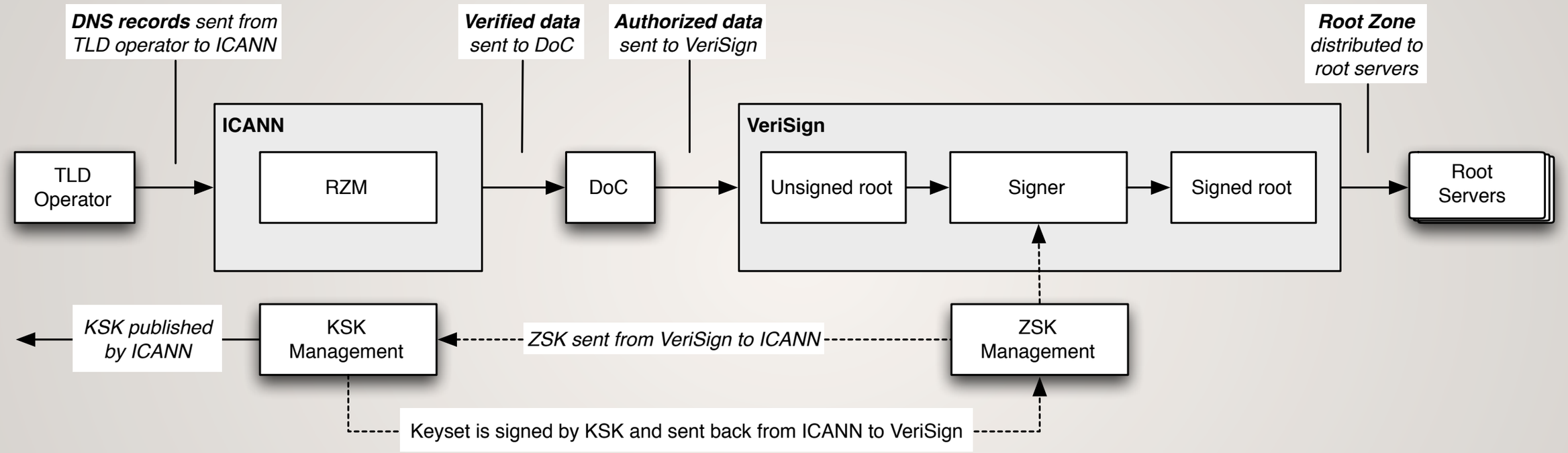
can ".ελ" be delegated to *(organisation)* and be inserted in the root zone?

evaluation performed by
IANA staff w/ ICANN Board approval

standard delegation criteria,
standard root zone process,
plus Phase 1 completion

estimate 3+ months

Signing the Root Zone


DNS records sent from TLD operator to ICANN
Verified data sent to DoC
Authorized data sent to VeriSign
Root Zone distributed to root servers
TLD Operator
ICANN
RZM
DoC
VeriSign
Unsigned root
Signer
Signed root
Root Servers
KSK published by ICANN
KSK Management
ZSK sent from VeriSign to ICANN
ZSK Management
Keyset is signed by KSK and sent back from ICANN to VeriSign

In summary

- Progressive roll-out from January to mid-year
- Until fully deployed, in a ‘deliberately unvalidatable’ state so people don’t come to rely on it working; allows roll-back.
- No significant issues identified so far
- **root-dnssec.org**

Accepting DS records

- DNSSEC-signed TLD operators expects to soon be able to submit DS records for insertion into root zone.
- Similar process to ITAR, but more closely tied to existing root zone process.

WHOIS Data Accuracy

Checking the data in our WHOIS

- IANA staff rarely (never?) has reason to send physical mail to TLD managers
- How to verify if addresses are correct?

LOS ANGELES CA 900

10 DEC 2009 PM 9 T

age

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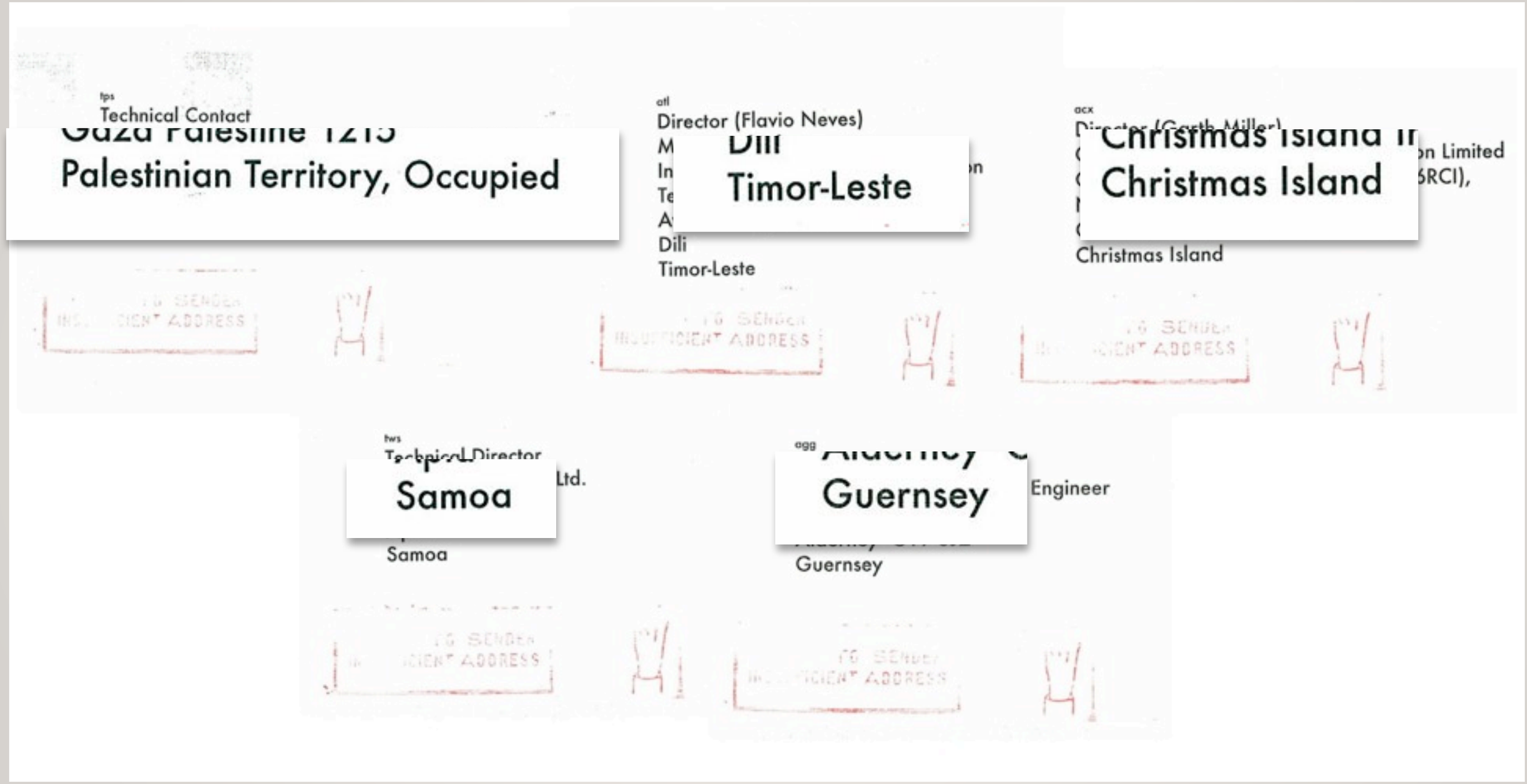
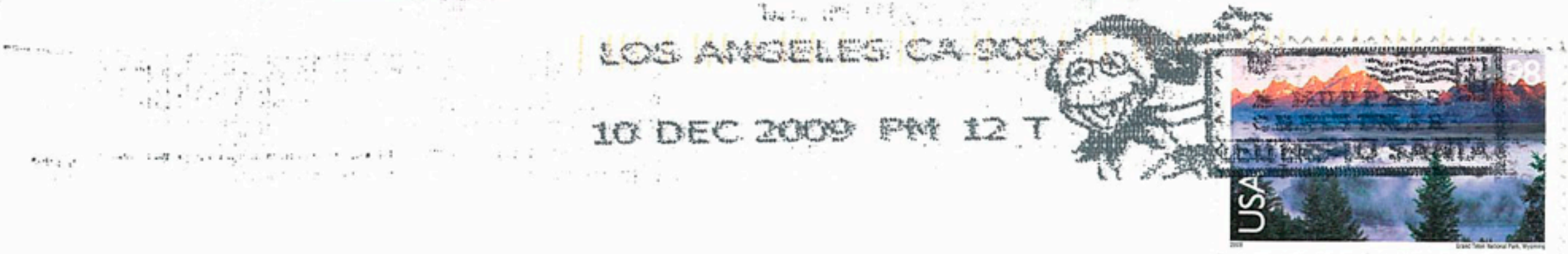
SANET Ltd.
37 Rustaveli Avenue
Tbilisi 0108
Georgia

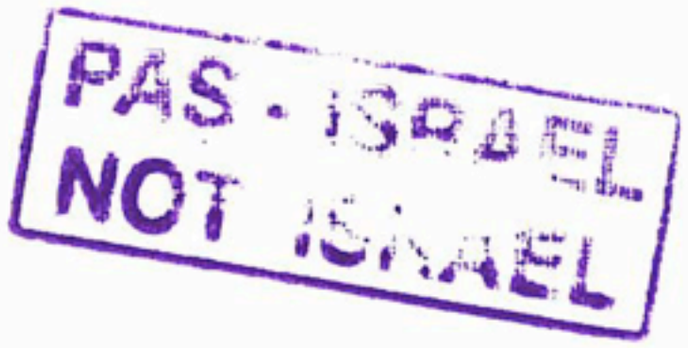
RETURN TO SENDER
INSUFFICIENT ADDRESS

ICANN
00151/0001


tps
Technical Contact
Palestinian Territory, Occupied
atl
Director (Flavio Neves)
Dili
Timor-Leste
Dili
Timor-Leste
acx
Christmas Island
Christmas Island
Christmas Island
tws
Samoa
Samoa
agg
Guernsey
Engineer
Guernsey



atk
Tino Vitale
Telecommunication Tokelau Corporation (Teletok)
Fenuafala
Fakaofo
Tokelau



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Thanks!

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