Introduction to the ccNSO
What is Country-Code Names Supporting Organization (ccNSO)?

Bylaw definition: ICANN Policy-development body, which shall be responsible for:

- Developing and recommending to the Board global policies relating to country-code top-level domains;
- Nurturing consensus across the ccNSO's community, including the name-related activities of ccTLDs; and
- Coordinating with other ICANN Supporting Organizations, committees, and constituencies under ICANN.

However, the ccNSO may also engage in other activities authorized by its members.
ICANN Organizational Chart

Ombudsman

Nominating Committee
+ Per ICANN Bylaws, Article VII, Section 2

ASO
+ Regional Internet Registries (AfriNIC, APNIC, ARIN, LACNIC, RIPE NCC)

ccNSO
+ ccTLD registries (.us, .uk, .au, .be, .nl, etc.)

Board of Directors

GNSO
- gTLD registries
- gTLD registrars
- IP interests
- ISPs
- Businesses
- Non-commercial interests
- Not-for-Profit Operational Concerns

At-Large
- Per ICANN Bylaws: At-large Advisory Committee, in conjunction with RALOs (ALAC)

President and CEO
- ICANN staff

Non-Voting Seats

Internet Engineering Task Force (IETF)

Security and Stability Advisory Committee (SSAC)

Root Server System Advisory Committee (RSSAC)

Governmental Advisory Committee (GAC)
Who Are We?

- Members (165, March 2018, gradually growing)
- Council (18 Councillors)
- Chair, Vice-chairs
- ccNSO Secretariat
Membership: 165

Observers: AfTLD, APTLD, CENTR, LACTLD
Members: ccTLD managers that have agreed in writing to be members of the ccNSO

Role of the members

- Volunteers, participate in activities of ccNSO and other groups
- Elect Councillors (Bylaw)
- Nominate Board members seat 11 and 12
- Final vote ccNSO PDP (Bylaw)
- 10% members may call for a vote on all Council decisions
ccNSO Council

Chair: Katrina Sataki (.lv)
Vice-chairs: Byron Holland (.ca), Demi Getschko (.br)
Annually appointed
The Role of the ccNSO Council

- ccNSO Council: responsible for managing the policy-development process of the ccNSO
- Role of the Council evolved
  - Manage affairs ccNSO
  - Represent ccNSO
- Nominate Board members (Bylaw)
- Appoints chair and vice-chairs
Major Council decisions Q 4 2017

- ccNSO will NOT participate in RDS/WHOIS2
- Participation in WT 5
- Council Statement on Operating Standards Specific Reviews
- Actions to understand impact from the use of Emoji as Second Level Domain names
  - Study Group & check current language in FT and overall policy
- Requirements for NomCom appointees to the Council
Scope for Policy development very limited
- Limited Scope defined in Annex C
- Out of scope: all policies relating to registration of ccTLD domain names (local ccTLD policies)
- Policy applies to ccTLD by virtue of membership, exceptions (applicable law and breach local custom or public policy)

Process defined in Annex B ICANN Bylaws
- Heavy handed process
- Members vote, after Council vote
- Structural engagement GAC

To date only two (2) PDPs and 1 ongoing PDPs:
- Bylaws (2005)
- IDN ccTLDs (2013 Board report)
- Independent review mechanism decision relating to delegation, revocation, transfer and retirement of ccTLDs
Evolved Functions ccNSO

- **Policy related work**
  - Framework of Interpretation RFC 1591
  - IDN ccTLD Fast Track

- **Platform function**
  - ccNSO meeting days
  - Tech Day
  - Joint meetings Board, other SO/ACs

- **Represent ccTLD community interests in ICANN eco-system**
  - Interaction with ICANN Board
  - Strategic and Operation Planning WG
  - ccTLD voluntary financial contributions to ICANN
What Does the ccNSO Do for ccTLDs

- Exchange of information
- Networking
- Represent ccTLD community interests in ICANN
- Policy Development
- Policy related work
Current ccNSO Activities
TLD-OPS: ccTLD Security and Stability Together

security alerts | incident contact repository | global collaboration

EMEA Webinar
March 6, 2018

Jacques Latour, .ca (chair)

Feel free to ask questions right away, no need to wait until the end of the presentation!
TLD-OPS

• Global technical incident response community *for and by* ccTLDs, open to *all* ccTLDs, not a commercial enterprise, not for vendor/service solicitation

• Brings together people who are responsible for the operational security and stability of their ccTLD

• **Goal:** enable ccTLD operators to collaboratively detect and mitigate incidents that may affect the operational security and stability of ccTLD services and of the wider Internet

• Further *extends* members’ existing incident response structures, processes, and tools and *does not* replace them

• Guidance by TLD-OPS Standing Committee
TLD-OPS Membership Statistics

<table>
<thead>
<tr>
<th></th>
<th>Members</th>
<th>%</th>
<th>Missing</th>
<th>%</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td>193</td>
<td>66%</td>
<td>98</td>
<td>34%</td>
<td>291</td>
</tr>
<tr>
<td><strong>ASCII</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>164</td>
<td>67%</td>
<td>81</td>
<td>33%</td>
<td>245</td>
</tr>
<tr>
<td>AF</td>
<td>25</td>
<td>49%</td>
<td>26</td>
<td>51%</td>
<td>51</td>
</tr>
<tr>
<td>AP</td>
<td>50</td>
<td>61%</td>
<td>32</td>
<td>39%</td>
<td>82</td>
</tr>
<tr>
<td>EU</td>
<td>65</td>
<td>100%</td>
<td>0</td>
<td>0%</td>
<td>65</td>
</tr>
<tr>
<td>LAC</td>
<td>19</td>
<td>45%</td>
<td>23</td>
<td>55%</td>
<td>42</td>
</tr>
<tr>
<td>NA</td>
<td>5</td>
<td>100%</td>
<td>0</td>
<td>0%</td>
<td>5</td>
</tr>
<tr>
<td><strong>IDN</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>29</td>
<td>63%</td>
<td>17</td>
<td>37%</td>
<td>46</td>
</tr>
</tbody>
</table>

Date: Feb 26, 2018
Contact Repository Email

“John Doe, #1, .nl, +31 123456789” john.doe@nic.nl, john@oarc.net
“Jane Doe, #1, .vn, +84 123456789” jane.doe@nic.vn, jane@oarc.net
Examples of Security Alerts and Queries

- Malware use DNS to steal personal info
- Two DDoS attacks on a registry’s name servers
- Registry front-end compromise due to 0-day vulnerability
- Large malvertising campaign targeting popular ccTLD websites
- A ransomware that used domain names of various ccTLDs
- Helped one ccTLD with problems with their DNS anycast service
- Security warning for a ccTLD that got hacked
- Security warning on DDoS attack on DNS root of June 25, 2016
- Security warning regarding large volumes of Cutwail Traffic
- Queries on latency problems with DNS anycast operators
Why Join?

- Increase reachability of your ccTLD in incident response situations
- Increase your ability to help your peers in these situations
- Increase your awareness of incidents and your security posture
- Learn from your peers how they solved incidents
- Contribute to security and stability of wider Internet infrastructure
- TLD-OPS is open to *all* ccTLDs
- TLD-OPS is an initiative *for and by* ccTLDs
- Joining only takes one email (through your IANA Admin Contact)!
## Contact Us If Your ccTLD is on This List!

<table>
<thead>
<tr>
<th>AF</th>
<th>AP</th>
<th>LAC</th>
</tr>
</thead>
<tbody>
<tr>
<td>.ac Ascension</td>
<td>.az Azerbaijan</td>
<td>.ai Anguilla</td>
</tr>
<tr>
<td>Islands</td>
<td></td>
<td></td>
</tr>
<tr>
<td>.ao Angola</td>
<td>.bd Bangladesh</td>
<td>.bo Bolivia</td>
</tr>
<tr>
<td>.bj Benin</td>
<td>.bt Bhutan</td>
<td>.bs Bahamas</td>
</tr>
<tr>
<td>.cd Congo, the</td>
<td>.ck Cook Islands</td>
<td>.bz Belize</td>
</tr>
<tr>
<td>Democratic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Republic</td>
<td>.cx Christmas Islands</td>
<td>.cu Cuba</td>
</tr>
<tr>
<td>.cg Congo,</td>
<td>.dj Djibouti</td>
<td>.ec Ecuador</td>
</tr>
<tr>
<td>Republic of</td>
<td></td>
<td></td>
</tr>
<tr>
<td>.ci Cote d’Ivorie</td>
<td>.gu Guam</td>
<td>.gf French Guiana</td>
</tr>
<tr>
<td>.cm Cameroon</td>
<td>.hm Heard and McDonald</td>
<td>.gs S. Georgia &amp; the S.</td>
</tr>
<tr>
<td>Islands</td>
<td></td>
<td>Sandwich Islands</td>
</tr>
<tr>
<td>.er Eritrea</td>
<td>.io British Indian Ocean</td>
<td>.gy Guyana</td>
</tr>
<tr>
<td>.et Ethiopia</td>
<td>.kg Kyrgyzstan</td>
<td>.ht Haiti</td>
</tr>
<tr>
<td>.ga Gabon</td>
<td>.kp Korea, Democratic</td>
<td>.hn Honduras</td>
</tr>
<tr>
<td>Islands</td>
<td></td>
<td></td>
</tr>
<tr>
<td>.gn Guinea</td>
<td>.kj Kazakhstan</td>
<td>.jm Jamaica</td>
</tr>
<tr>
<td>.gq Equatorial</td>
<td>.mh Marshall Islands</td>
<td>.kn Saint Kitts and Nevis</td>
</tr>
<tr>
<td>Guinea</td>
<td></td>
<td></td>
</tr>
<tr>
<td>.gw Guinea--Bissau</td>
<td>.mm Myanmar</td>
<td>.ky Cayman Islands</td>
</tr>
<tr>
<td>.lr Liberia</td>
<td>.mp Northern Mariana Islands</td>
<td>.mq Martinique</td>
</tr>
<tr>
<td>.ml Mali</td>
<td>.mv Maldives</td>
<td>.ms Montserrat</td>
</tr>
<tr>
<td>.mr Mauritania</td>
<td>.nc New Caledonia</td>
<td>.mx Mexico</td>
</tr>
<tr>
<td>.ne Niger</td>
<td>.nf Norfolk Island</td>
<td>.pe Peru</td>
</tr>
<tr>
<td>.sd Sudan</td>
<td>.np Nepal</td>
<td>.sr Suriname</td>
</tr>
<tr>
<td>.sl Sierra</td>
<td>.nr Nauru</td>
<td>.sv El Salvador</td>
</tr>
<tr>
<td>Leone</td>
<td></td>
<td></td>
</tr>
<tr>
<td>.so Somalia</td>
<td>.om Oman</td>
<td>.sx Sint Maarten</td>
</tr>
<tr>
<td>.st Sao Tome and</td>
<td>.pf French Polynesia</td>
<td>.tc Turks and Caicos Islands</td>
</tr>
<tr>
<td>Prinipe</td>
<td></td>
<td></td>
</tr>
<tr>
<td>.sz Swaziland</td>
<td>.pk Pakistan</td>
<td>.vc Saint Vincent and the</td>
</tr>
<tr>
<td>.td Chad</td>
<td>.pw Palau</td>
<td>Grenadines</td>
</tr>
<tr>
<td>.tg Togo</td>
<td>.tc Turks and Caicos Islands</td>
<td></td>
</tr>
<tr>
<td>.zw Zimbabwe</td>
<td>.tj Tajikistan</td>
<td></td>
</tr>
<tr>
<td></td>
<td>.tk Tokelau</td>
<td></td>
</tr>
<tr>
<td></td>
<td>.tm Turkmenistan</td>
<td></td>
</tr>
<tr>
<td></td>
<td>.to Tonga</td>
<td></td>
</tr>
<tr>
<td></td>
<td>.tv Tuvalu</td>
<td></td>
</tr>
<tr>
<td></td>
<td>.ws Samoa</td>
<td></td>
</tr>
<tr>
<td></td>
<td>.ye Yemen</td>
<td></td>
</tr>
</tbody>
</table>
TLD-OPS Postcard (January 2017)

TLD-OPS: ccTLD Security and Stability Together
security alerts • incident contact repository • global collaboration

Number of Member ccTLDs: 186 (65%)
https://ccnso.icann.org/resources/tld-ops-secure-communication

Dear ccTLD Manager,

Please accept this postcard as a kind invitation to join TLD-OPS, the incident response community for and by ccTLDs. We currently have 186 members (65% of all ccTLDs) from across the globe, but we’re still missing you!

The purpose of TLD-OPS is to enable its members to help each other to detect and mitigate incidents that may affect the security and stability of ccTLD services, such as DDoS attacks, malware infections, and phishing attacks. The aim of TLD-OPS is to further extend members’ existing incident response structures, processes, and tools and not to replace them.

TLD-OPS builds on a standard mailing list, which members actively use to share and receive security alerts and queries. The list also acts as a contact repository in that subscribers receive a monthly automated email that contains the incident response information (names, phone numbers, email addresses) of all member ccTLDs.

The contact repository improves the reachability of TLD-OPS members because everyone has everyone else’s contact information readily available in their inboxes, which typically also works in offline emergency situations.

TLD-OPS is open to every ccTLD and joining only takes a few minutes. Please check the TLD-OPS homepage (URL on the front of this card) and download our leaflet, which is available in Arabic, Chinese, English, French, Russian, and Spanish.

We hope to welcome you on board soon!

Best regards,
TLD-OPS Standing Committee
TLD-OPS Workshops at ICANN58/59 (members only)

• Goal: explore how TLD-OPS members can collaborate to detect and mitigate DDoS attacks, develop a DDoS mitigation playbook

• Motivation: recent (IoT) attacks on DNS operators (e.g., Dyn, root)

• Approach
  – Facilitate dialog: sharing of experiences, discussion, generation of ideas
  – Considering perspectives such as technical, operational, and strategic

• Targeted results
  – Shared understanding of role of TLD-OPS in handling DDoS events
  – Guidelines and tools to integrate TLD-OPS into ccTLD operations
  – DDoS mitigation playbook template for ccTLD
Summary

• Open and global incident response community for and by ccTLDs

• Builds on standard mailing list (193 ccTLDs, 345+ subscribers)

• Enhances local incident response facilities, not a replacement

• Increases everyone’s reachability and security awareness
  – Everyone has everyone else’s contact info in their inbox, even offline
  – Exchange security alerts and queries (DDoS attacks, phishing, etc.)
  – Learn from each other

• Easy to join (through IANA Admin Contact)

  [Link](https://ccnso.icann.org/en/resources/tld-ops-secure-communication.htm)
Q&A

TLD-OPS Standing Committee
Frederico Neves, .br
Jacques Latour, .ca (chair)
Erwin Lansing, .dk
Régis Massé, .fr
Ali Hadji Mmadi, .km
Jay Daley, .nz
Abibu Ntahigiye, .tz
Brett Carr, .uk
Warren Kumari (SSAC contact)
John Crain (ICANN’s security team contact)
Kim Davies (IANA contact)

ICANN Staff
Kim Carlson

TLD-OPS Home
http://ccnso.icann.org/resources/tld-ops-secure-communication.htm

TLD-OPS Leaflet
Arabic, Chinese, English, French, Russian, Spanish, Russian

Contact
Jacques Latour
Standing Committee Chair
+1.613.291.1619
jacques.latour@cira.ca
PDP Retirement of ccTLDs

Members:
Patricio Poblete
Nigel Roberts
Dr Eberhard W Lisse
Stephen Deehrake
Peter Van Roste
Peter Vergote
Danko Jevtović
Mirjana Tasić
Martin Boyle
Tom Barrett
Wafa Dahmani
Abibu Nhugigiye
Svitlana Tkachenko
Barrack Otkeno
Annebeth Lange
Nick Wenban-Smith
Barbara Povše
Debbie Monahan
Allan MacGillivray
Peter Koch
Garth Miller

*SOIs have been linked if an individual has one on file or if their individual SOAC requires one.

Participants:
Olivie Kouami
Theo Geurts
Michele Neylon
Maureen Hilyard
Marita Moll
Rasheed Tamton

Observers and Experts:
Elise Gerich
Naela Sarras
Kim Davies
Vadim A. Mikhailov
Olivier Girard

ISO3166 Expert:
Jaap Akkerhuis

Staff Support:
Bart Boswinkel
Kim Carlson

https://community.icann.org/display/ccnsowkspc/Policy+Development+Process+%28PDP%29++Retirement
Use of Country and Territory names as TLDs:
Participation in WT5 GNSO PDP Subsequent procedures

- New Era: participating as ccNSO in GNSO PDP
- Terms of Reference Safeguards decision making: To be further discussed in San Juan
- Fall-back position: Current Applicant Guidebook, including exclusion of C & T as gTLDs
- Definitional issues: what is a geographical name?
- Topic meeting ccNSO-GAC & ccNSO- GNSO
ccNSO Meeting Strategy Review

- Review of the current meeting format
- Survey of ccTLDs
- Consultation with ccTLDs & work session in San Juan
- Includes review role of the Programme WG, # of meetings etc.
ccNSO IDN and IDN related work

- Use of Emoji as SLD: Relation IDNA protocols
- Fats Track Process: Introduction Risk Mitigation (confuding similarity)
- Review of the overall proposals needed:
  - Impact RZ-LGR (not addressed currently)
  - Review of membership clauses following Bylaw changes
- Update based on latest experiences Fast Track Process
Next Steps IDN ccPDP

Your views are needed!
Hot topics ccNSO agenda in San Juan:

- Policy & Policy related work
  - Retirement of ccTLD & Country and Territory names
  - Legal Session: Impact of GDPR on WHOIS ccTLDs: perspectives from 3 regions
- ccNSO Meeting Strategy work session
- Use of emoji as second level domains: Security and Stability concerns, Tech Day and Members Day
- ccNSO Rejection Action Petition Procedure or How to Stop some ICANN’s decisions?
Agenda and participation at ccNSO related session during ICANN61

- Agenda Tech Day (Monday 12 March):
  https://community.icann.org/display/ccnsowkspc/Tech+Day+San+Juan+-++Agenda
- Agenda ccNSO Meeting days (Tuesday, Wednesday 13 and 14 March):
  https://community.icann.org/pages/viewpage.action?pageId=74587248
- Remote Participation ICANN61:
  https://community.icann.org/display/ccnsowkspc/ICANN61+-+San+Juan%2C+PR++2018
WE NEED YOU!
Thank you!