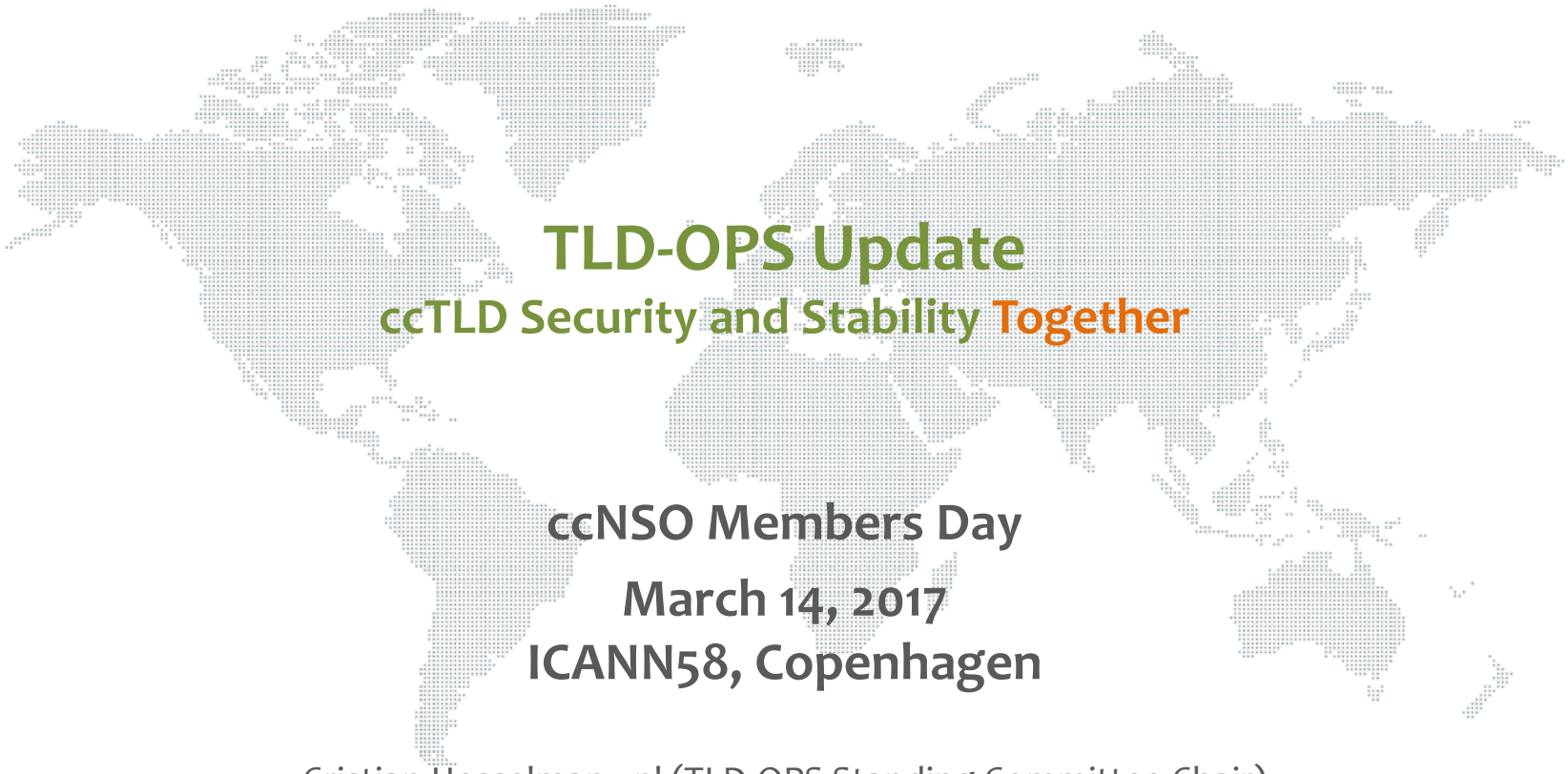


TLD-OPS Update

ccTLD Security and Stability Together

ccNSO Members Day

March 14, 2017

ICANN58, Copenhagen

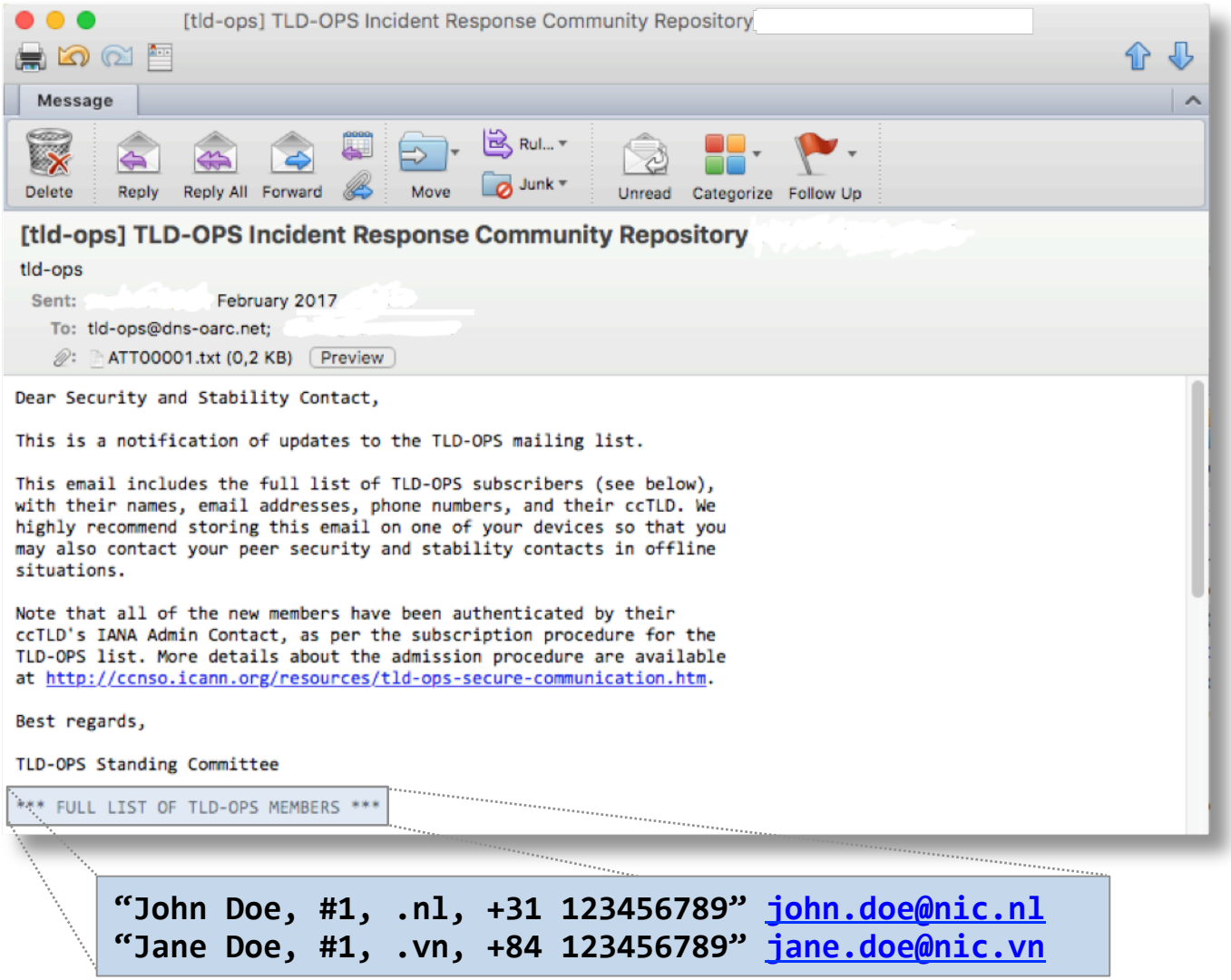
Cristian Hesselman, .nl (TLD-OPS Standing Committee Chair)

ccNSO ICANN

TLD-OPS

- Global technical incident response community *for and by ccTLDs*, open to *all* ccTLDs
- Brings together ~330 people who are responsible for the operational security and stability of 187 different ccTLDs
- 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
  - ccTLD reps and Liaisons (SSAC, IANA, ICANN's security team)

Contact Repository Email



“John Doe, #1, .nl, +31 123456789” john.doe@nic.nl
“Jane Doe, #1, .vn, +84 123456789” jane.doe@nic.vn

Stats: 328 subscribers from 186 ccTLDs

Security Alerts and Queries

#	Description	Month
10	Registry front-end compromize due to 0-day vulnerability	Mar-17
9	Queries on latency problems with DNS anycast operator	Dec-16
8	Security warning regarding large volumes of Cutwail Traffic	Nov-16
7	Alert: several members reporting large DNS traffic spikes	Nov-16
6	Security warning for a ccTLD that was hacked	Aug-16
5	Helped ccTLD with problems with their DNS anycast service	Jul-16
4	Security warning on DDoS attack on DNS root	Jun-16
3	Alert: spear-phishing attacks against ccTLD operators	Apr-16
2	Large malvertising campaign targeting popular ccTLD websites	Apr-16
1	A ransomware that used domain names of various ccTLDs	Feb-16

TLD-OPS Membership Stats

All	Members	%	Missing	%	Total
Total	***187***	64%	***104***	36%	***291***

ASCII	Members	%	Missing	%	Total
Total	***158***	***64%***	***87***	***36%***	***245***
AF	23	45%	28	55%	51
AP	49	60%	33	40%	82
EU	65	100%	0	0%	65
LAC	17	40%	25	60%	42
NA	4	80%	1	20%	5

IDN	Members	%	Missing	%	Total
Total	***29***	63%	***17***	37%	***46***

Last update: February 27, 2017

Progress Since ICANN57

- Security alerts
  - Registry front-end compromize due to 0-day vulnerability (Mar)
  - Queries on latency problems with DNS anycast operators (Dec)
  - Security warning regarding large volumes of Cutwail Traffic (Nov)
  - Large traffic spikes at three ccTLDs, likely a reflection attack (Nov)

- Membership updates
  - Joined: .as (American Samoa), .ir (Islamic Republic Of Iran)
  - Contact updates: 5 (new/removal)
  - Put two ccTLDs back on the list after excess bounces

Outreach: TLD-OPS Workshop, March 12

- Goal: explore how TLD-OPS members can collaborate to detect and mitigate DDoS attacks

- Motivation:
  - Recent large-scale (IoT) attacks on the DNS (such as Dyn, root)
  - Need to mobilize the collective experience of the TLD-OPS community

- Approach
  - Facilitate dialog: sharing of experiences, discussion, generation of ideas
  - Considering perspectives such as technical, operational, and strategic
  - Closed workshop for member ccTLDs only

- Targeted results
  - Shared understanding of role of TLD-OPS in handling DDoS events
  - Guidelines and tools to integrate TLD-OPS into ccTLD operations
  - Items for further discussion

Workshop Stats

Attendees	55 (61 registrations)
ASCII ccTLDs	35
IDN ccTLDs	11
ccTLD reps	52 (4 also on the SSAC, but ccTLD reps today)
Proxies	9
SSAC members	2
RSSAC members	1
Regions	AF, AP, EUR, LAC, NA
Expertise	operational, technical, strategic
SC members	6 (Fred, Jacques, Erwin, Cristian, Jay, Warren)

Last update: March 12, 2017

Breakout Groups and Lots of Interaction!

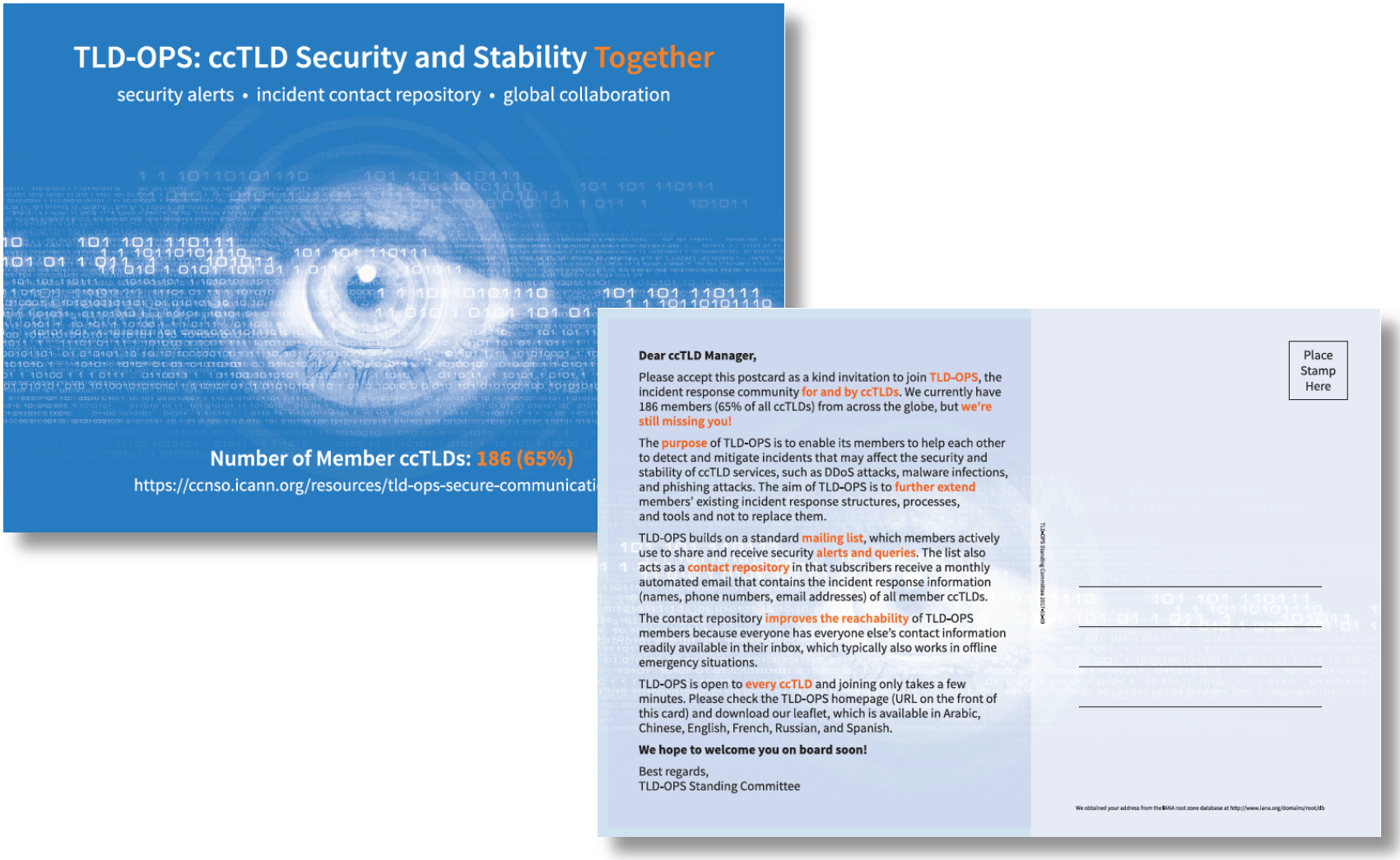
ccNSO ICANN

Workshop Results (First Selection)

- Initial feedback: increased trust among TLD-OPS members
- Excellent participation and attendance
- Workshop format worked well
- Secondary email address for every incident response contact
- Live communication facilities during an attack (chat, bridge)
- Share best practices and enable peers to learn
- Longer term: shared services (sinkhole, threat analysis, monitoring)
- Next step: look into flip charts in more detail and put into action

Was It Useful?

Outreach: TLD-OPS Postcard (January 2017)



Objectives ICANN58

- Increase the number of ASCII ccTLDs members by 5% to 194 through webinars for LAC and AF and possibly AP regions
- Organize a TLD-OPS workshop at ICANN58 to discuss how ccTLDs collaboratively detect and mitigate DDoS attacks

Objectives ICANN59

- Potentially organize 2nd TLD-OPS workshop (focus on AF region)
- Put outcomes Sunday's workshop and survey into action
- Finalize TLD-OPS membership update procedure
- Increase membership by 3 to 190

Q&A

TLD-OPS Standing Committee
Frederico Neves, .br
Jacques Latour, .ca
Erwin Lansing, .dk
Ali Hadji Mmadi, .km
Cristian Hesselman, .nl (chair)
Jay Daley, .nz
Abibu Ntahigiye, .tz
Warren Kumari (SSAC liaison)
John Crain (ICANN's security team liaison)
Kim Davies (IANA liaison)

ICANN Staff
Kim Carlson

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

TLD-OPS Leaflet
https://ccnso.icann.org/workinggroups/tld-ops-enhanced-incident-response-capabilities-cctlds-14apr16-en.pdf
Arabic, Chinese, English, French, Russian, Spanish, Russian

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