



**DNS-OARC**

# OARC25 Workshop Dallas, Texas, USA 15-16 October

## SPONSORS

PREMIUM



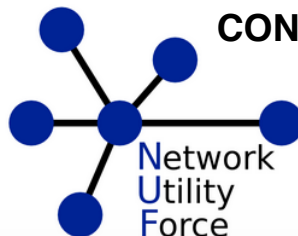
**VERISIGN®**

PATRON



CONTRIBUTOR

**NETFLIX**



**NZRS**   
an InternetNZ company

**POWERDNS**   
AN **OX** COMPANY

# What is Where



- WiFi SSIDs:
  - **NANOG-ARIN** 802.1x, preferred
    - User/Pass: nanog/nanog
  - **NANOG-ARIN-legacy** Open, *caveat emptor*
  - Thank You to NANOG for venue and connectivity help !
  - **<https://www.nanog.org/meetings/nanog68/internet>**
- Break, lunch and toilet locations
- Dietary requirements
- Fire alarm procedure



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# What is Where

- DSC/Grafana Demo (Jerry Lundström)
  - Crown Room throughout workshop
- PGP signing session (Joe Abley)
  - Sunday lunch break at 1pm
  - Keys to <pgpsign@dns-oarc.net>
- Badge lanyards:
  -  Staff, Board, PC
  -  First timers
  - Please return lanyards to desk when you leave
- Sorry no social event this time ☹️



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# We are Webcasting

- Google Hangouts/YouTube:
  - <https://plus.google.com/+DnsoarcNetPlus/>
- Jabber room:
  - <xmpp://dns-operations.dns-oarc.net>
- Please set your beeping devices to silent
- Please queue at microphone stand, and identify yourself and affiliation before asking a question
- Social media hashtag #OARC25



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# Speakers

- Please see me if:
  - You didn't upload your slides yet
  - You have special AV requirements
- Good timekeeping helps 😊
- Timeslots *include* Q&A
  - *countdown is to end of slides*
- Devices → ✈ mode
- We appreciate your contribution !



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# **DNS-OARC 2016 AGM President's Report**

**William Sotomayor  
(for Keith Mitchell)  
OARC25 AGM  
October 2016**

# Have a great Workshop !

- Keith is heading *“where the streets have no name”* and sends his apologies this time (only)



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# OARC's Mission Statement

*The Domain Name System Operations Analysis and Research Center (DNS-OARC) is a non-profit, membership organization that seeks to improve the security, stability, and understanding of the Internet's DNS infrastructure.*

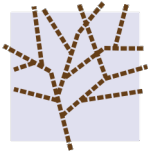
*DNS-OARC's mission is to:*

- *promote and conduct research with operational relevance through data collection and analysis*
- *offer useful services and tools*
- *build relationships among its community of members*
- *facilitate an environment where information can be shared responsibly*
- *enable knowledge transfer by organizing open workshops*
- *increase public awareness of the DNS's significance*



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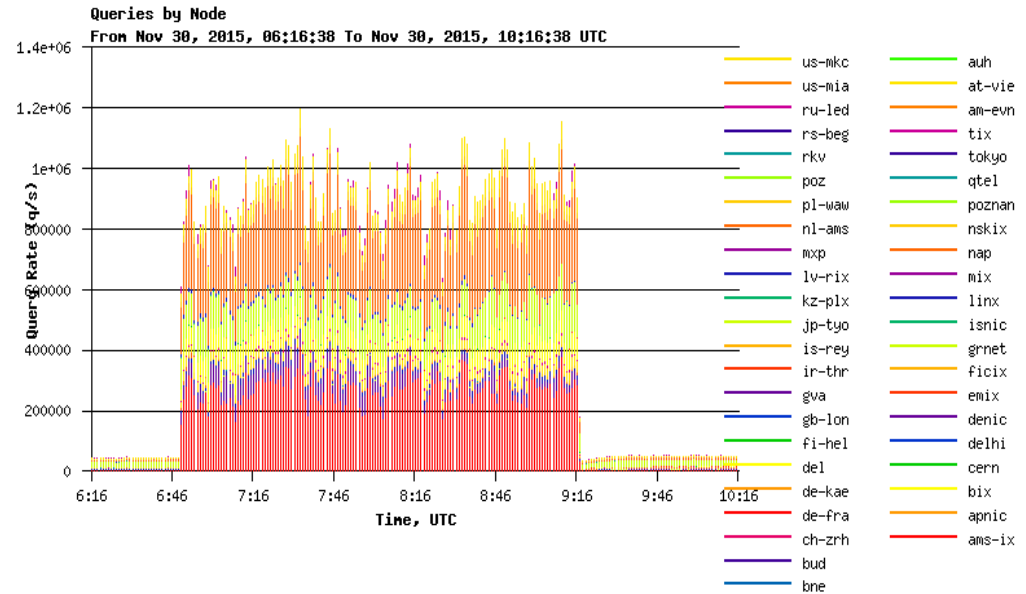
# OARC by Analogy



OARC is a prestigious library specializing in the DNS. We do our best to index a large collection of data in perpetuity, and because we're a neutral organization we strive to make the library accessible and welcoming to all researchers and operators of the DNS. For our members we offer private meeting rooms (mailing lists) where they can discuss and collaborate on current DNS Operations. At our upper levels you'll find our most precious archives and artifacts, set aside behind glass for safe keeping. We also have a Library Learned Society, where an exclusive group of members and guests gather on a semi-annual basis at our workshops to share their ideas, incentivize and encourage research, and catch up on the latest industry news.

# ..or to put it another way:

- Yet more bad stuff has been happening to the DNS lately



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# OARC's Value in Action

- Gathered real-time data during end-2015/early-2016 attacks
- Post-incident DITL-style upload of attack PCAP from H and K root (thank you !)
- Provided co-ordination resources to root-ops
- Forums for analysis/discussion of what happened, including closed member session at OARC24 workshop



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# OARC Governance

- Independent legal entity
- Diverse member base
- Financially self-supporting
  - ~\$6-700k annual revenue ~= expenses
- Self-governing, neutral
- Elected Board reflecting member interests
- Contracted Executive Staff
- Volunteer workshop Programme Committee
- 501(c)3 non-profit public benefit corporation



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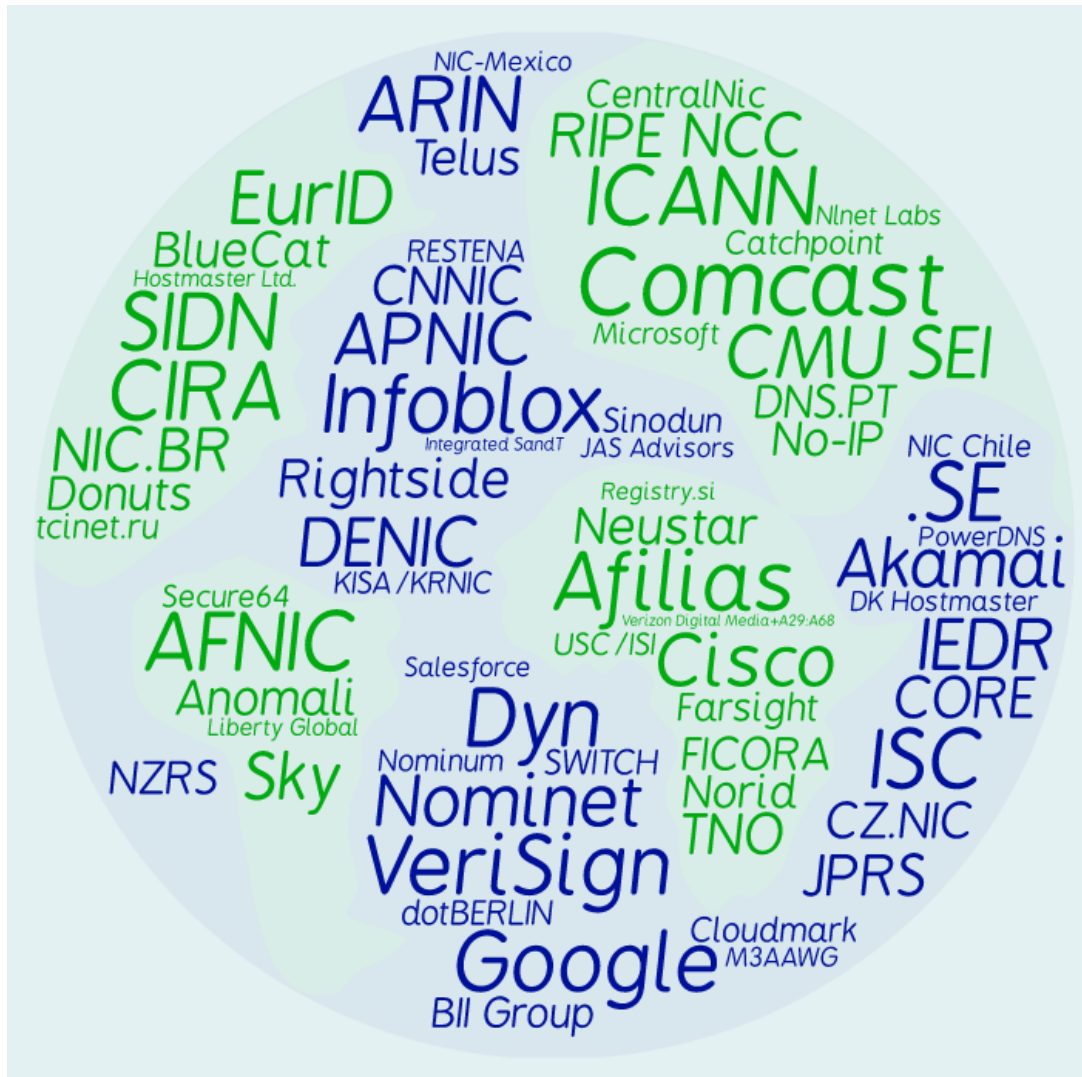
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# OARC Status



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# OARC's Members



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# Welcome New OARC Members 😊

(since April 2016)

<u>Participant</u>	<u>Level</u>
NIC.cr	Blue
CMU-SEI	Gold
G. Sisson	Supporter
TNO	Bronze
DePaul University	Supporter
Salesforce	Bronze



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# Thank you Upgraded Members

## Re-joined as Supporter

- AfriNIC, University of Maryland

## Bronze to Silver

- CIRA

## Gold to Platinum

- ICANN



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# 2016 Achievements

- Re-located California primary infrastructure site
- Set up new resilient site in Ottawa, Canada
- First workshop in LAC Region
- Brought over 500TB of new storage capacity online:
  - consolidated and mirrored >80TB dataset
  - record 10TB DITL 2016 data gathering completed
  - special DITL for Root ZSK size increase
- New Software Engineer: modernized and consolidated existing tools, starting new development projects
- Major Website update
- Collating RSSAC-002 data from root operators



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# 2015-6 OARC Board

- John Crain, *ICANN*, Director
- Paul Ebersman, *Comcast*, Director
- Ondrej Filip, *CZ.NIC*, Chairman
- Dave Knight, *Dyn*, Director
- George Michaelson, *APNIC*, Director
- Duane Wessels, *Verisign*, Treasurer



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# 2016 OARC Programme Committee

- Ray Bellis, *ISC*
- Anand Bhuddev, *RIPE NCC*
- Sebastian Castro, *NZRS* (Chair)
- Mauricio Vergara Ereche, *ICANN*
- Liam Hynes, *Dyn*
- Geoff Huston, *APNIC*
- Sean Stuart, *Verisign*
- Duane Wessels (OARC Board Liaison)



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# DNS-OARC Staff Resources

- President, Secretary (*Keith Mitchell*, Ohio) 0.75 FTE
- Systems Engineer (*William Sotomayor*, Ontario) 1.0 FTE
- Software Engineer (*Jerry Lundström*, Stockholm) 1.0 FTE
- Membership Coordinator (*Sue Graves*, Oregon) 0.5 FTE
- Events Coordinator (*Denesh Bhabuta*, London) 0.25 FTE
- Book-Keeper (*Pam Stone*, California) 0.1 FTE



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# OARC Membership Categories

Category	Contacts	Annual
Supporter	1	\$0
Blue	2	\$1.0k
Bronze	3	\$6.0k
Silver	5	\$9.5k
Gold	8	\$14.0k
Platinum	10	\$22.5k

- **Supporter** requires annual in-kind contribution
  - e.g. data, presentations, services
- **Blue** category for small organizations/individuals only



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# Neutrality Principles

- Do not offer commercial for-profit DNS services
- No exclusivity or discrimination in dealings with Members or Registries
- All data, tools and services available to Public, or to all Members on an equitable basis
- Do not operate DNS production infrastructure on behalf of individual Members
- No revenue sharing with Members
- Transparency and Board oversight of all contracts and arrangements with Members that are not covered by the Participation Agreement
- DNS-OARC shall be able to engage in software/service development and research/analysis projects. Such projects shall be approved by the Board on a case-by-case basis, and details shared with members
- <https://www.dns-oarc.net/files/Corporate/OARC-neutrality-policy.pdf>



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# OARC Workshops

- 2 workshops per year
- 1.5-2 days long
- Co-locate with RIPE/NANOG/ICANN/IETF
  - this has been challenging for 2017, but have developed methodology for future site selection
  - can reduce attendee travel and connectivity costs, but generally raises all others
- Always seeking sponsors !
  - <https://www.dns-oarc.net/files/meeting-sponsor.pdf>
  - OARC25 will again break ~even 😊 Thank You

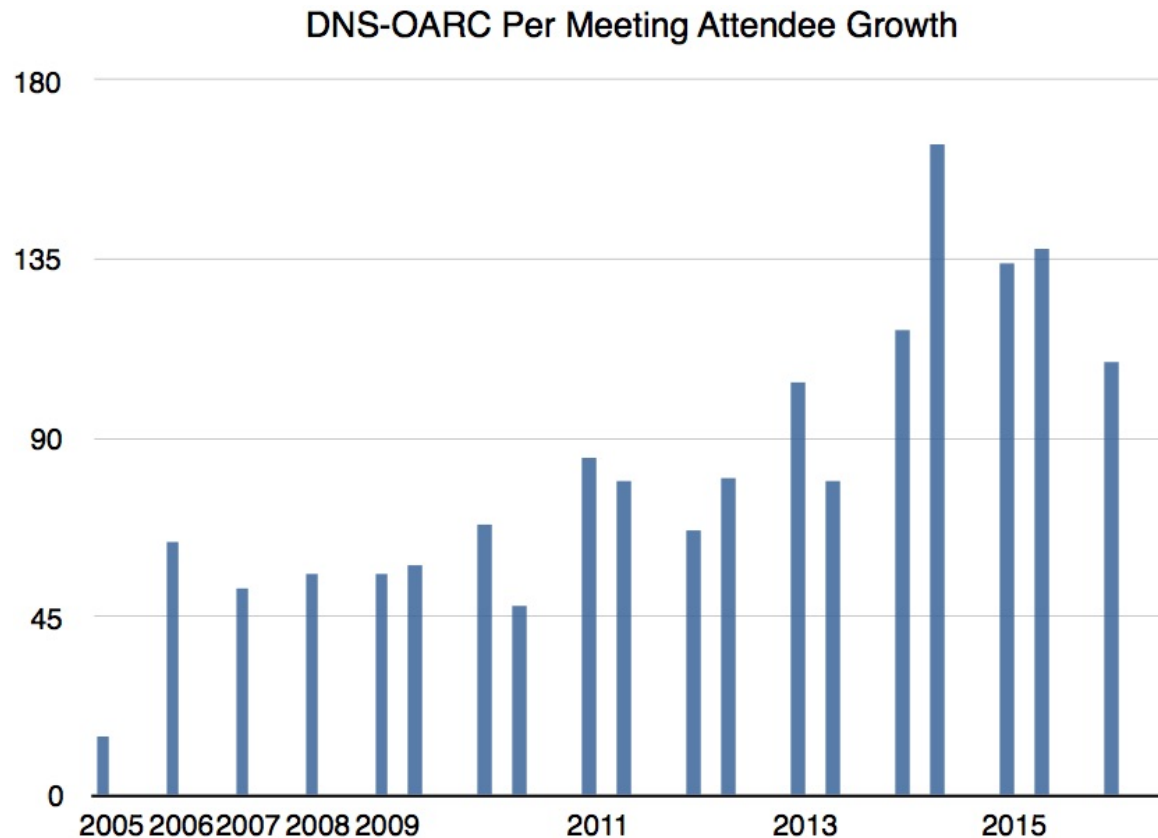


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# Workshop Attendance



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# OARC Conduct Policy

- Seems prudent to have a policy which makes it clear certain behavior is not appropriate within OARC Forums
- Set standards *before* there are any issues
- In-line with current industry best practice, e.g.
  - <https://www.ripe.net/participate/meetings/ripe-meetings/ripe-meeting-code-of-conduct>
  - [https://wiki.uknof.org.uk/Respect\\_at\\_UKNOF](https://wiki.uknof.org.uk/Respect_at_UKNOF)
- Keep it **simple**
- Initial intention is for workshops, but could expand to cover all OARC activities



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# Future Workshops

- OARC26
  - RIPE74, Budapest in May, being confirmed
  - Manchester, England (UKNOF37, April) is available as a fall-back
- OARC27
  - 29-30 September 2017
  - NANOG71, San Jose



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# 2017 Plans

- Strategic challenges ahead
  - Retreat with new Board early Q1
  - Find new ways to grow revenue
- Upgrade analysis capacity/cluster
- Need to find new physical office – requirements:
  - <https://www.dns-oarc.net/node/118>
- Make newly-developed tools live for production use
- Further special DITLs for root KSK rollover



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# Why Become an OARC Member ?

- Access to and participation in the world's premier community of DNS technical experts
- Influence development of open tools and services to support your infrastructure operations
- Ability to share and analyze a unique dataset perspective into global DNS operations
- Use of community co-ordination resources to respond to incidents and threats
- Support a trusted neutral party free of vested interests in the DNS space



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# Questions ?



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# AGM Resolutions and Board Elections



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# AGM Process

- Each member representative should have signed in, and received:
  - voting card – please hold up per resolution for **one** of *yes/no/abstain* vote
  - voting paper – please mark your preferred candidates from 1 to up to 8 in decreasing preference, and hand in to William
- Board results will be announced after software vote-count, before lunch break



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# AGM Resolutions

*1. To approve the audited OARC, Inc. financial statements for the fiscal year 2015*

- <https://indico.dns-oarc.net/event/25/material/0/0.pdf>

*2. To approve the Minutes of the 2015 OARC, Inc AGM*

- <https://indico.dns-oarc.net/event/25/material/0/2.pdf>

*3. To elect three member representatives to the OARC Board*

- <https://www.dns-oarc.net/oarc/agm-2016/elections>



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# Board Seats

- Existing Board member **George Michaelson** (for **APNIC**) has served for two-years and his seat is up for election by rotation.
- Existing Board member **Ondrej Filip** (for **CZ.NIC**) has served the maximum limit of 3 two-year terms and is standing down.
- Existing Board member **John Crain** (for **ICANN**) is standing down.
- Eight candidates for three seats



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# Board Candidates

- David Lawrence (Akamai)
- George Michaelson (APNIC)
- Jacques Latour (CIRA)
- Ondřej Surý (CZ.NIC)
- Ralf Weber (Nominum)
- Sebastian Castro (NZRS)
- Daniel Karrenberg (RIPE NCC)
- John Dickinson (Sinodun)



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# Thank You !!

- To our outgoing Board members for their long-standing commitment and service:
  - John Crain
  - Ondrej Filip



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