

OARC 30

12-13 MAY 2019

BANGKOK, Thailand

ALSO IN
BANGKOK

GDD INDUSTRY SUMMIT
6-9 MAY 2019

ROW
9 MAY 2019



ICANN DNS SYMPOSIUM
10-11 MAY 2019

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Introduction to DNS-OARC

Keith Mitchell, President

OARC30

May 2019

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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Domain Name System Operations Analysis and Research Center

The word cloud is shaped like a tree, with the canopy representing the distribution of domain names by country. The canopy is green and contains numerous domain names, while the trunk and branches are brown and contain fewer, larger domain names.

Canopy (Green):

- NIC.BR
- Facebook
- CentralNic
- Nameshield
- IEDR
- CIRA
- DISA
- SEI
- SIDN
- Fastly
- VeriSign
- Nominet
- Afilias
- Telus
- ISC
- Amazon
- Netnod
- KISA/KRNIC
- NIC.CR
- Oracle+Dyn
- Verizon
- DNS_OATH
- NSI
- NLnet Labs
- Esti Internet
- No-ip
- Wide
- Unipassofundo
- M3AAWG
- ICANN
- CoxCom
- IFON
- InternetNZ
- SOX
- DomainTools
- ISOC-II
- EurID
- Shaw Comm
- JPRS
- NRNDP
- Hostmaster
- DK
- ICSI
- NIC-Mexico
- FICORA
- Traficom
- Gransy
- Ofcom
- Neustar
- NASA Amres
- PCH
- DNS.PT
- Feamster
- NCC
- AFRINIC
- RIPE
- Infoblox
- Univ of Maryland
- Cisco
- CAIDA
- DNS Belgium
- APNIC
- NSRC
- Salesforce
- Google
- Snake Hill Labs
- Akamai
- Quado
- ISOC
- CENTR
- NIC Chile
- Farsight
- Networks
- Sweden Internet Eng
- PowerDNS
- DePaul University
- Nimbus
- Deteque
- auDA
- NIC.BR

Trunk and Branches (Brown):

- Hostmaster Ltd
- NISK-IX
- CNNIC
- Donuts
- USC/ISI
- Surfnet
- US MMTV
- UTwente
- PIR
- craigslist
- GoDaddy
- Arnes
- Toybox
- CZ.NIC
- Secure Domain
- NIC.AT
- BYU
- AFNIC
- Double Shot Security
- RESTENA
- DENIC
- RTFM



Domain Name System Operations Analysis and Research Center

It's quite hard to explain what DNS-OARC is/does...

- Are we a library, or more like a Learned Society ?
- *"Where DNS experts work together"*
- Perhaps you have to be an active, engaged Member to really “get” it...then it becomes obvious



What we provide to our Members and the Community

- DNS operational best-practice knowledge-sharing
- Development and maintenance of open-source DNS tools
- A range of online platforms and services to support the above
- DNS dataset collection, curation and sharing
- Collaboration venue between operators and researchers
- Workshops as a focus for all the above activities
 - “Global DNSNOG”



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OARC Technical Resources

- >250TB, 15+ year DNS data catalog
- Core infrastructure in Fremont, California
 - analysis servers for Member use
- Open-source DNS tool software
 - <https://github.com/DNS-OARC>
- Suite of active DNS test services
- Secondary sites in Ottawa and Stockholm



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OARC Membership Categories

Category	Contacts	Annual
Supporter	1	\$0
Blue	2	\$1k
Bronze	3	\$6k
Silver	5	\$9½k
Gold	8	\$14k
Platinum	10	\$25k
Diamond	18	\$50k

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



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OARC Governance

- Independent legal entity
- Diverse member base
- Financially self-supporting
 - ~\$800k 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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2018-9 OARC Board

- Jacques Latour, *CIRA*, Treasurer
- David Lawrence, Director
- George Michaelson, *APNIC*, Director
- Ondřej Surý, *ISC*, Director
- Jaromír Talíř, *CZ.NIC*, Director
- Duane Wessels, *Verisign*, Chairman



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DNS-OARC Staff Resources

- President, Secretary (*Keith Mitchell*, Indiana) 0.75 FTE
- Systems Engineer (*Matt Pounsett*, Toronto) 0.75 FTE
- Software Engineer (*Jerry Lundström*, Stockholm) 1.0 FTE
- Membership Coordinator (*Sue Graves*, Oregon) 0.5 FTE
- Events Coordinator (*Denesh Bhabuta*, London) 0.5 FTE
- Book-Keeper (*Pam Stone*, California) 0.1 FTE



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2019 OARC Programme Committee

- Anand Buddhdev, *RIPE NCC*
- Ralph Dolmans, *NLnet Labs*
- Robert Edmonds, *Fastly*
- Shumon Huque, *Salesforce* (Chair)
- Dave Knight, *Snake Hill Labs*
- Jan Včelák, *NS1*
- Jake Zack, *CIRA*
- Ondřej Surý (OARC Board Liaison)



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OARC Workshops

- 2 workshops per year, 2 days long
 - may increase to 2½ per year
- Co-location with RIPE/NANOG/ICANN meetings:
 - saves attendee time and \$\$\$\$ costs
 - overlapping operational communities, outreach
 - connectivity/facility sharing
- Sponsor and Patron support helps a lot !
 - <https://www.dns-oarc.net/workshop/patronage-sponsorship>

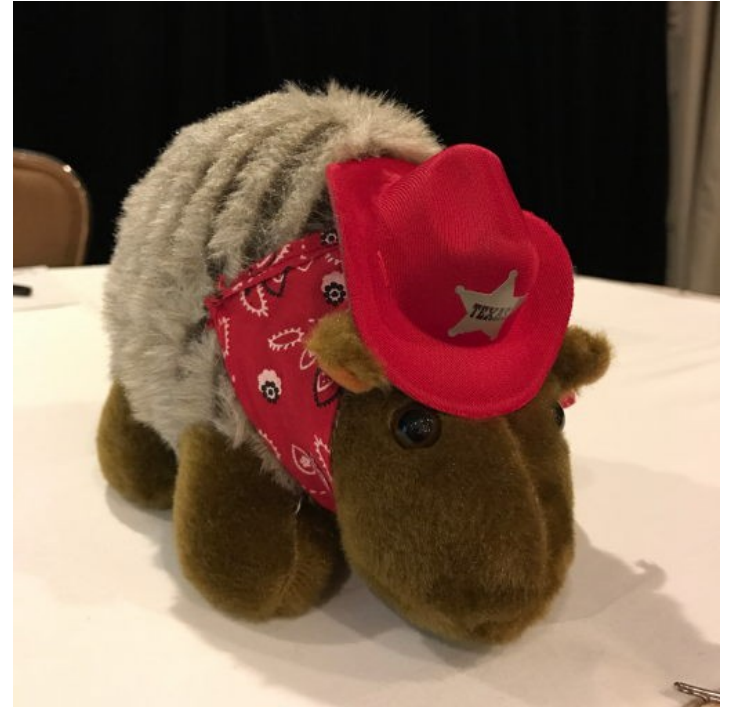


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Next workshop: OARC31

- Oct 31st - Nov 1st 2019
- Austin, Texas
- Co-located with NANOG77 and ARIN44



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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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OARC's Value Proposition

Member testimonials:

"OARC is the only organization of its kind, dedicated to DNS operations and research. Given my company's deep involvement with DNS and my personal interest, I simply have to be a member and attend the workshops, which have consistently high-quality content."

"OARC is a unique venue that brings together DNS vendors, operators of DNS services and researchers - the workshops provide a unique and valuable insight into the current state of the art of the DNS."

"DNS OARC provides the invaluable mingling of DNS operators, developers, researchers, to communicate, collaborate, and share data via workshops, mail lists, and shared computing resources. Without this association I would not be aware of the current problems facing the DNS and Internet community nor be a part of their solutions."

"Of all the work-related conferences I attend, @dnsoarc is reliably the one with the fewest uninteresting bits. Approaching zero."



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Questions ?



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