

DNS-OARC Status Report

Keith Mitchell, President

OARC31

October 2019

**[https://indico.dns-oarc.net/event/32/
attachments/683/1173/Report-2019_10.pdf](https://indico.dns-oarc.net/event/32/attachments/683/1173/Report-2019_10.pdf)**

2019 Achievements

- The new home for *DNSVIZ*, *dnsperf* & *dnsmeter*
- New Member portal website operational
- OARC30 Bangkok biggest workshop ever, jointly with ICANN IDS
- Awarded Community Grant by **ARIN** to support open-source software maintenance
- Major dataset file store stabilization effort
- Administrative support of DNS Flag Day



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2018-9 Achievements Recap

- Fremont core site re-build
- Budgetary surplus (~5%) for 2018
- DITL 2019 data gathering completed
- New releases of *dsc-datatool*, *dnsjit* and *drool*
- Bi-annual Board retreat and Staff all-hands



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Welcome New Members!

(since OARC30 ⇒ October 2019)

Participant

Level

Microsoft

Bronze

LACNIC

Bronze

NetProtect

Bronze

Alibaba

Bronze

ISZT.hu

Blue

ShreshtaIT

Supporter

Old Dominion Univ.

Supporter

CBN Internet

Supporter

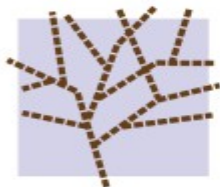
Member Upgrades:

- UCSD CAIDA **Supporter** to **Blue**

Member Non-Renewals:

- A10 **Silver**
- CMU-SEI **Gold**
- Cox **Silver**
- Donuts **Bronze**
- RESTENA **Bronze**

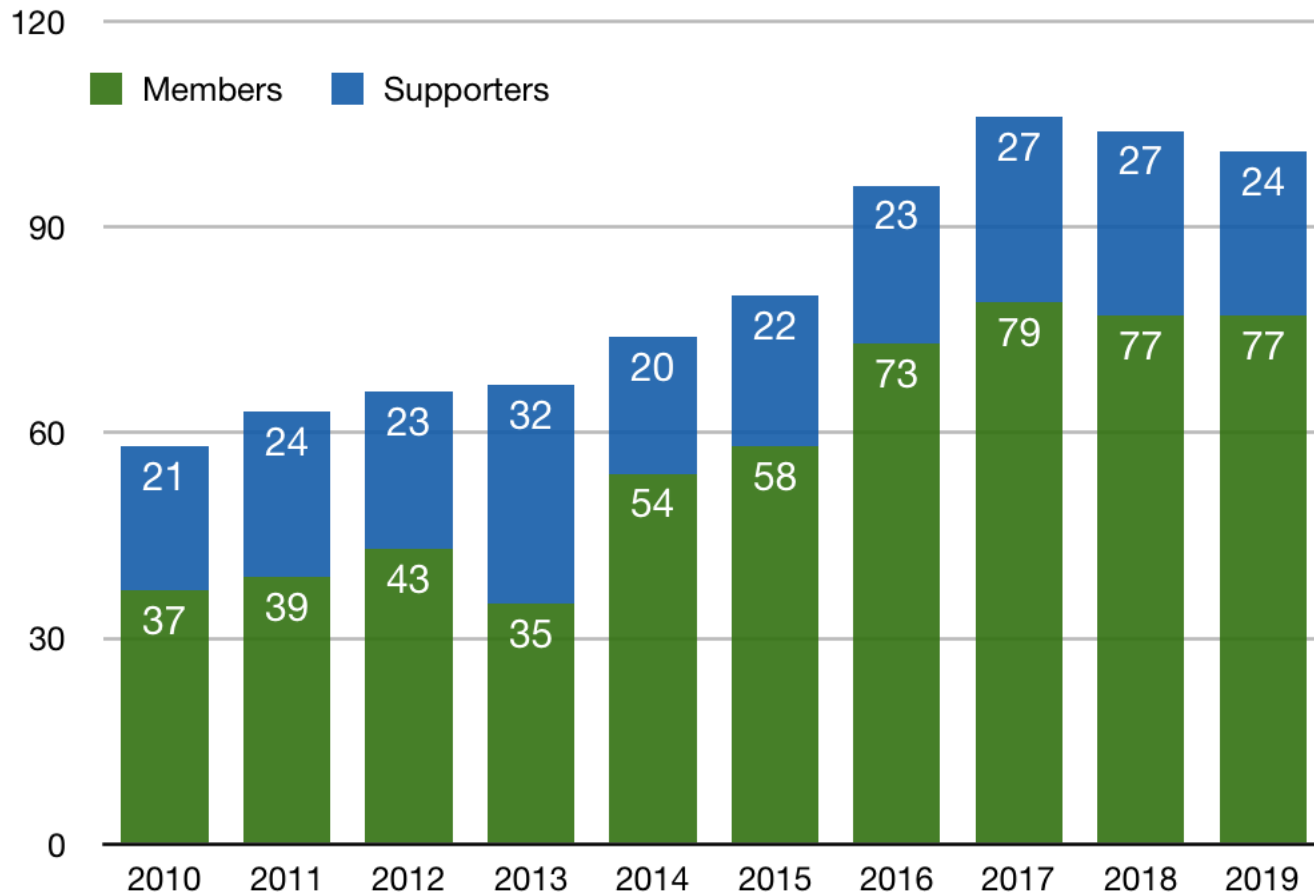
and three non-contributing **Supporter-level**
Participants



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OARC Members and Supporters Growth



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Strategic Challenges

- Almost net zero growth in paying new Members
- Despite strong macro-economic conditions, tech industry structure is changing with much consolidation, privacy concerns
- Our data storage infrastructure is overdue for significant investment
- OARC contributions from Members are by no means proportional to their size
- Workshop sponsorship is also more challenging to secure
- Limited execution capability makes us vulnerable to unexpected externalities



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2019 Retreat Strategy Outputs

- Conservative strategy for challenging environment, positioned:
 - to build on stable base
 - for opportunistic growth
 - to retain membership
- Diversification of revenue sources:
 - to mitigate risks of industry consolidation
 - explore non-membership based revenue from new/un-bundled/premium services
 - improve differentiation between membership tiers
 - review/adapt Member value proposition



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Diversified Services

- Premium DNSVIZ: monitoring, alerting
- Premium analysis resources
- >2 workshops/year
- Workshop add-ons
- Software support contracts
- Member site visits
- Portal as a Service



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Discount and Referral Options

Details:

- https://indico.dns-oarc.net/event/32/attachments/683/1133/Membership-pricing_2020.pdf

Pre-Pay:

- any Member who wishes to renew their 2019/20 Membership early before end 2019 will be able to do so at this year's prices for 2020

Upgrade:

- between now and 1st Jan 2021, and receive a 10% discount for the first year at the upgraded level



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Discount and Referral Options

Multi-year:

- for Members who wish to save by committing to 2- or 3-year terms
- this is based on an escalating scale of 5% discount for year 2, and 10% for year 3

Referral:

- existing Members who refer a new party to OARC who becomes a paying Member can receive a 10% discount
- Supporters who refer a new paying Member can receive an upgrade to Blue Membership



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New Member Portal

- Ancient decade+old PERL thing retired !
- Jerry has completely re-implemented using modern platform
- <https://portal.dns-oarc.net>
- First release duplicated old portal functionality, we have now started adding new features
- More flexible data model allows us to expand participant categories and integrate existing & new services



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Board and PC

- Board has created 2 new sub-committees:
 - Audit
 - Privacy
- Board will select 2020 Programme Committee during Nov 2019:
 - please let us know if you are interested in serving
 - self-nomination to <pc2020@dns-oarc.net> by 15th November



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OARC & DoH/DoT/Do*: *Possible positioning*

- Much activity and controversy about this at present
- OARC strives to be neutral among the diverse interests of its Members, and objective wrt different IETF DNS standards
- OARC's Mission includes measuring, understanding and improving the DNS
- For DNS-over-* technologies, we are here to provide tools, and facilitate data gathering, analysis, coordination, and deployment towards the best operational outcomes



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Data Storage Infrastructure

- We had many issues with this in 2019, and have been unable to post-process several recent DITL collections as a consequence
- In summary, annual infrastructure upgrades have expanded raw storage without properly updating or scaling processing capacity
- Various non-upgraded elements have aged to the point where dataset integrity is at-risk
- While the dataset is back in a stable state, it's burning a lot of sysadmin resource to keep it that way, and we can't risk certain activities with some datasets/servers



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Storage Infrastructure Challenges

- Preserving the status quo is not necessarily cheaper nor safer than a major upgrade programme
- Matt's presentation outlines what we *actually* need going forwards
- While \$120k is a worst-case capital cost and could be spread over a few years, we only have ~\$30k left in our 2019 CapEx budget, and can't afford to take more than about \$50k from reserves
- Inflation-indexed fee increases will not help with this !



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Storage Infrastructure Future

- The major resource drain of gathering and maintaining DITL data is impairing OARC's ability to do many other activities
- If the community wants OARC to continue to be the custodian of this data, we need a significant resource injection
- i.e. multiple \$10ks of cash, and/or equivalent donations of *new* hardware need to come from Members and/or external grants
- The nature of OARC's dataset and policies does not make it amenable or economic to do this in a 3rd-party cloud



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OARC Workshops

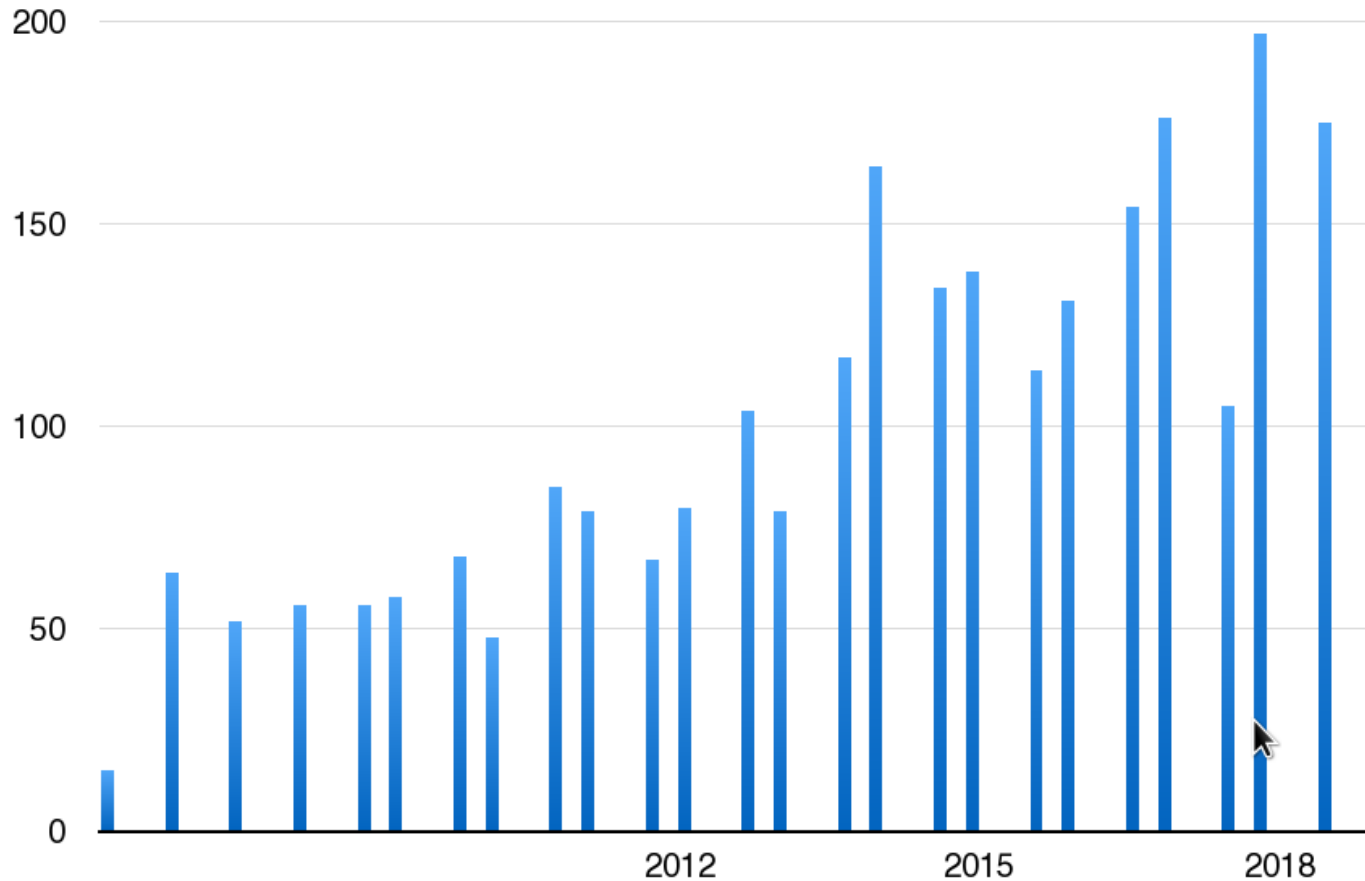
- New Registration charging policy:
 - Complimentary, Discounted, Standard, +Late, +Social
- OARC29 better than break-even
- OARC30 was free to all thanks to ICANN hosting
- OARC31 onwards charging is as for OARC29
 - may vary where we have Host organizations (OARC33)
 - makes doing more workshops/year viable
- **Thank you** for your strong support in making OARC workshops more sustainable



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Workshop Attendance

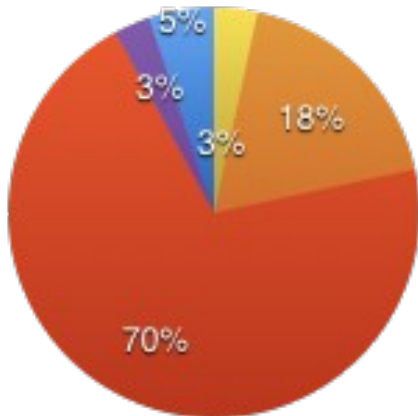


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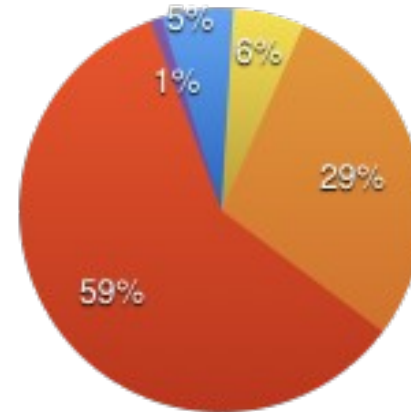
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Attendance by region

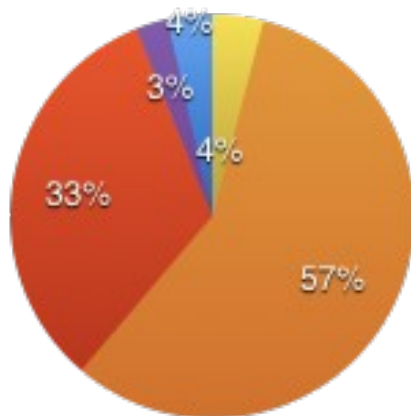
OARC 27 / NANOG SJC



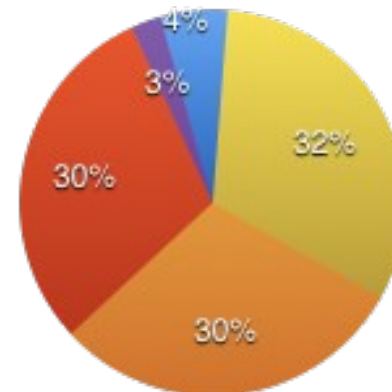
OARC 28 / ICANN SJU



OARC 29 / RIPE AMS



OARC 30 / IDS BKK



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Workshops Frequency

- Currently we do 2 workshops per year, 2 days long
- Co-location with RIPE/NANOG/ICANN meetings:
 - saves attendee time and \$\$\$\$ costs
 - overlapping operational communities, outreach
 - but ad-hoc rotation demands more OARC resources to plan and host
- We want to improve geographic coverage



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Workshops Co-location

- From 2020, we are going to 2 * 2-day, plus 1 * 1-day workshops per year
- This will allow us to co-locate at each event, once per year, at same time of year:
 - NANOG: February
 - ICANN IDS/GDD: May
 - RIPE, CENTR: October
- Will significantly simplify planning for us and our partners



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2020 Workshops

- OARC32
- Feb 8th
- San Francisco, California
- Co-located with NANOG78
- OARC33
- May 9-10th
- Paris, France
- Co-located with ICANN IDS, GDD
- OARC34 (*TBC*)
- Oct 26-27th
- Milan, Italy
- Co-located with RIPE81, CENTR-Tech



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2019-20 Plans

- Modernize/automate systems management
- Service diversification offerings
- Evolve future-proof storage architecture
 - *figure out how to fund this..*
- Privacy Policy
- Member referral and multi-year discount plans
- 1st Jan 2020 proposed inflation-index based fee increase



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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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