



DNS-OARC

Domain Name System Operations Analysis and Research Center

Members Annual Report, October 2023

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Dear OARC Members,

This is the final such report you'll be receiving from me in my capacity as OARC President. I've been involved with OARC for some 17 years now, with it being my primary role for the past decade. In that time we've achieved significant growth of our organization and community, and made more than a small contribution to making the Internet's DNS work better. While personally I take much pride in all that our staff, volunteers and community have developed with me as I step down, it's also exciting to know that with the appointment of my successor, **Phil Regnauld**, OARC will be in excellent hands for further evolution and development in the future.

One of the rewards of developing OARC over the years has been to grow our team of talented and committed staff, from just 0.5 FTE a decade ago to 8 people (~6 FTE) today. 2022-23 has seen notable additions to this team, and allowed us to address gaps in our capabilities in ways which are making a difference to your Member experience.

This team growth has enabled significant engineering progress over this period, burning down long-standing technical debt and bringing the long-term Data Store project close to completion.

You can find out more about what we've achieved in the following and attached written reports, which will be presented at the AGM this Thursday 12th October, where there is also some important company formal business to be conducted, including electing next year's Board. We look forward to your participation there.

1. Workshops

The [OARC41](#) workshop took place on the 6th and 7th of September 2023 in Da Nang, Vietnam, our first event in Asia in over 4 years. There were around 115 attendees on-site, and some 20 presentations. You can find slides at <https://www.dns-oarc.net/oarc41>, and a [meeting report](#) on our blog site. I'd like to extend our immense gratitude to **VNNIC** for their hospitality, and both **VNNIC** and **ICANN** for all their material and logistical support, without which this workshop would simply not have been possible.

From a practical point of view, it seemed like our approach to events this year of holding two full workshops (including [OARC40](#) with NANOG88 in Atlanta in February), and supporting an extra event (the [DNS Hackathon](#) with RIPE86 in Rotterdam in May), worked quite well, achieving a balance between geographic region and co-located event coverage against available resources. The team are reviewing event plans for the rest of 2024 and you should expect announcements shortly.

OARC42 will take place in Charlotte, N. Carolina, USA, in February 2024, co-located with NANOG90, and the Call for Presentations:

<https://indico.dns-oarc.net/event/47/abstracts/>

is now open.

Opportunities are available for sponsorship and patronage of all OARC's events, please see:

<https://www.dns-oarc.net/workshop/patronage-sponsorship>

and contact Denesh via sponsor@dns-oarc.net for further information.

Our thanks in particular to **Verisign**, **AuDA**, and **ISC** for their Patronage of our workshops for 2023.

2. 2023 Annual General Meeting and Board Elections

This is taking place on the 12th October, and will once again be a fully online stand-alone event. I'm not going to repeat our various communications on this, but you can find full information about the AGM at:

<https://indico.dns-oarc.net/e/agm-2023>

The Board elections take place immediately after the AGM, and will again use an online voting platform. This year we have 5 candidates for 4 places, they are:

- [Ray Bellis](#)
 - [Joao Luis Silva Damas](#)
 - [Benno Overeinder](#)
 - [Ralf Weber](#)
 - [Jacob Zack](#)
- | |
|-------------------|
| ISC |
| APNIC |
| NLnet Labs |
| Akamai |
| CIRA |

You can find their platforms at:

<https://www.dns-oarc.net/oarc/agm-2023/elections>

and more details on the elections process are linked to from the AGM site.

In addition to the regular AGM business, we have two Special Resolutions which amend the company [Bylaws](#), requiring approval by Members at the AGM. Bylaw amendments require supermajority support from the Members, so it is important for you to please attend and participate at the AGM, or submit a proxy if you cannot.

The [first proposed amendment](#) is to address a contradiction in the Bylaws which makes the status of unaffiliated Directors ambiguous. While Board Directors now serve in a personal rather than Member representative capacity, it is a requirement that at the time of appointment they are employed by or otherwise associated with a Member organization. Should this association cease mid-term, the current Bylaws are unclear on whether they should continue serving or step down.

This proposed amendment modifies Section 2 of the Bylaws so that a Director in this position can continue until the end of their term, unless voted out by a majority of the other Directors.

The [second proposed amendment](#) seeks to ensure we balance the rotation of 50% of the Board each year, as required elsewhere in the Bylaws. We have regularly found ourselves in the situation where Directors have to step down mid-term, which causes more than the 3 out of 6 Board seats to be up for election at the subsequent AGM. This imbalance can then propagate to following years, and indeed this year we find we have 4 places to be filled.

The solution we have identified is to have any 4th (or further) elected Directors only serve for a 1-year term, re-balancing rotation to 3:3 in the following year. This is made possible by the ranked voting system that OARC uses in its elections. For 2023, we will be using this approach in this year's elections, and the intent of this resolution is to codify this practice for all future elections.

Finally our thanks to outgoing Board Director, **Paul Ebersman**, for his service to OARC over the past 4 years.

3.2022-23 Financial Position

Part of OARC's regular business cycle is to have our finances independently audited, and the results of this are available for Member review and approval at the AGM. I'm pleased to report our 2022 financial statements, and ongoing position and processes, have once again received a clean bill of health. You can find the [2022 Audited Financial Statements](#) on the AGM site.

Another strength of OARC is the support and loyalty of our Member community, and we are grateful to you all that despite a ~8% inflation-driven increase to subscription fees at the start of 2023, we have seen no significant loss of Members, and steady recurring revenue from subscription renewals. We did however make a decision for the 2023 budget to run a planned deficit (around \$120k) to help grow our staff and other resources, and to catch-up capital equipment investment, to develop the organization. With the addition of **Mike Baer** and **Rebecca Petro** as Systems Engineering and Admin resources last year, this team growth has paid off significant dividends both in terms of burning down our long-standing technical debt, and streamlining many Member-facing and internal processes.

It is not completely plain sailing however, and at present we are projecting a rather higher deficit than planned. This is down to a number of causes, including the workload of several team members placing full-time rather than part-time demands on their contracted hours, higher than expected inflation for travel costs, and a decision by the Board to engage external professionals for the President selection. We also have some revenue shortfall both in signing up new Members and project/grant income.

The Board has taken the view that despite macro-economic inflation currently running around 3-4%, a further fee increase for 2024 would not however be appropriate at this time, though we reserve the necessity to propose this later next year if necessary. One measure we are considering for 2024 is to alter the benefit of discounted Member workshop registrations to help with the increased costs of event-running. We are finding the proportion of Members that fully use this benefit is small, and tax accounting requirements for how we treat this benefit are proving complicated under recent rule changes.

Our cash reserves remain strong, and have not dropped below \$0.5M all year, giving us a buffer which could run OARC for at least 6 months in the worst-case scenario of all revenue ceasing.

4. Software and Systems Engineering

4.1 Ceph Data Store

The 4-year long haul of this project to migrate our 175TB dataset from legacy servers to a long-term distributed storage architecture is finally nearing completion. With the exception of a few datasets which are held only on cold or remote storage which will require some effort to repatriate, almost all data that can be migrated to the existing capacity of the new Ceph Data Store has been copied. Once this and some final cluster server consolidation is completed, the analysis servers will be gradually shifted over from using the current file storage system to the Ceph cluster by the end of this year.

The Ceph architecture was designed with easy capacity expansion in mind, and we are now ready to add new servers to increase capacity to support the remaining datasets and DITL 2024.

The remaining challenge is the data which is currently on functional storage media, but attached to a defunct server in our Fremont data center. To recover this, we've been trying to secure either of the services of a server hardware vendor, or short-term secure lab bench space in the SF Bay area, but not been having much luck so far. Any Member assistance or recommendations for these solutions would be welcome.

4.2 AS112

The ARIN Community Grant-funded project to upgrade and automate the <https://www.as112.net/> website managed by OARC has now been completed, and the results of this are now live on the site. This has stimulated engagement with the community of AS112 server operators, and resulted in a refresh of submitted data and some ideas for further development of the site.

4.3 DITL 2023

This was successfully completed during April, with only minor issues, and as ever we are grateful to all the contributors who did the work of data gathering for us. The raw dataset collection is around 12TB and is now available to Members.

4.4 Software Tools

OARC continues to support, evolve and maintain our range of DNS software tools, and over the past year there have been some 22 releases of open source projects, 4 Portal releases, and over 220 issues and pull requests. Of particular note are enhancements to DSC Grafana support. Please see the separate Engineering report for full details of this activity.

You can find out more details of our Software Development activities in Jerry's regular Development Updates, and a list of all our software is here:

<https://www.dns-oarc.net/oarc/software>

Finally, OARC can develop new tools, or enhance features of existing tools, via a custom for-hire development contract. OARC Members will receive priority for such work, and a discounted rate depending on membership tier.

4.5 Portal Event Registration

The work to add event registration integration to our Member Portal has now been completed, and you will all have first-hand experience of it registering for this year's AGM. Please do let us know how you found this, and we'll take feedback on board for using this for OARC42 and future events.

4.6 Data Analysis Demonstrator

With the underlying data storage infrastructure stabilized, we are now embarking on a project we've wanted to do for some time, to make access to and analysis of the OARC dataset much easier for researchers and members. The first step of this will be a proof-of-concept demonstrator for importing a subset of DITL data into an appropriate big data platform. We are currently in discussions with an OARC Member for a major grant to fund this initial work, and hope to confirm and announce that shortly.

5. Committees

5.1 Programme Committee

Our Programme Committee, which is responsible for selecting and soliciting content for our workshops, is a team of 7 volunteers who serve for up to 3 one-year terms. They are appointed by the Board shortly after the AGM, and before the end of each year. For 2024, we have a number of existing PC Members who will be stepping down having reached their term limit, and are seeking enthusiastic volunteers to serve for our 2024 workshops. In particular, our existing PC Chair, **Pallavi Aras**, will be stepping down and we are seeking a successor.

If you are interested, please submit nominations to <pc2024@dns-oarc.net> no later than 23:59 PST on 10th November.

You can find more details about how the Programme Committee operates at:

<https://www.dns-oarc.net/oarc/programme>

5.2 Privacy Committee

During 2023, the Privacy Committee has published a Charter, and had review of our existing Participation and Data Sharing agreements conducted by an internationally respected Privacy lawyer.

Board Director **Joao Damas** has taken over the role of Chairing this committee from **Benno Overreinder**, and will be presenting a progress update at the AGM.

6. Strategic Development

Between now and the end of 2023, our incoming President Phil Regnauld will be working with me in the interim capacity of Executive Director as we bring him up to speed, and execute the handover of my role and responsibilities. Hopefully many of you met Phil at OARC41, and there will be a chance to hear from him online at the AGM. Phil will be spending planning and transition time with me and the team over the coming months, and then will fully take up his Chief Executive role as President on 1st January 2024.

During early 2024, we will be having an overdue Board in-person strategy retreat, to take a step back and consider long-term vision and planning for OARC's future.

Although I am stepping down from executive duties at OARC, the plan is I will continue in the part-time non-exec role of Company Secretary, and to be available as a source of institutional memory as needed for the next year or two. It is my intention to remain active in our industry and community in a less demanding capacity for some time to come, and I look forward to keeping in touch with you all.

Serving OARC over the past decade+ has been a pleasure and a privilege. Thank You all for your support, commitment, patience, and guidance over the years.

Keith Mitchell
OARC President
October 2023