



DNS-OARC

Domain Name System Operations Analysis and Research Center

Members Report, February – April 2021

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Dear OARC Members,

A year on, it finally feels like we've got the hang of this pandemic virtual working and event-running thing. Our tech sector that provides the online infrastructure so much of the world is relying upon remains robust, and there seems no shortage of appetite for the products of OARC's mission. In some parts of the world, there is a cause for optimism the worst is behind us, but there's still an indefinite slog to be got through before we can be anything like back to "normal".

In the meantime, DNS-OARC continues its work. [OARC34](#) in January went well as another full-format online event with over 180 attendees, and for [OARC35](#), we're traveling virtually to the Asia Pacific region, with a timezone and content focus for our community members there.

We're building on the strong financial position we achieved during 2020 by hiring additional contractors, both for specific short-term projects, and to long-term close the gap between our objectives and capabilities.

Software activities over the past few months include significant enhancements to *dnspert*, *CheckMyDNS*, and *dnscap*, in addition to new *DSC* features, and updates to other projects.

Progress has been made on our new data store, but we did not meet our target of having it in-service in time for this year's DITL data collection. DITL 2021 was however conducted successfully, and we're grateful once again to all the contributors who have helped us build our historical dataset, which will be available on the new data store before long.

Also, in the interests of the well-being of our team, we'll be having another "shutdown" week, OARC will be taking a pause between the 10th and 14th May.

1. **OARC35 Online Workshop**

Our two-day [OARC35](#) workshop take places this week as a Zoom Webinar on the 6th and 7th of May, running from 01:00 to 07:00 UTC each day, for the benefit of our AP region audience. We have a full agenda of talks for OARC35, which you can find at:

<https://www.dns-oarc.net/oarc35>

As with previous online workshops, registration is required to attend this event - Member contacts should have received a discount code for OARC35, please let us know ASAP if you did not.

Content for OARC35, along with our previous workshops, will be published when available - slide decks for presentations on our Indico site a few days ahead of the workshop, and videos on our [YouTube](#) channel around 2 weeks after it.

We'd like to thank **Verisign** and **Farsight** for their sponsorship of OARC35.

2. **OARC is Hiring !**

OARC has always had more things it would like to do than resources to execute them, so I'm very pleased that the combination of increased Membership revenue and project grant funding success during 2020 is allowing us to increase headcount this year.

For now, we have 2 Engineering positions we need to fill. These are short-term contracts for specific projects, with the possibility of longer-term engagement for the right candidates:

- A Software Engineer, initially to help us to complete the DoH for *dnperf* project
- A Systems/Network Engineer, initially to clean-up our router configuration

We also have 2 long-term, part-time non-technical positions, to help support our Members and OARC's continued smooth operation:

- Membership Coordinator
- Administrator

All of these roles are on a remote/WFH basis so can be based anywhere, though the Administrator at least needs to be local to OARC's Indianapolis, USA office.

More background is available at:

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

Interested parties may submit a Resume/CV and any supporting documents, or questions, by email to [<jobs@dns-oarc.net>](mailto:jobs@dns-oarc.net). Please spread the word and/or put us in touch, if you can think of anyone suitable.

3. New Members

Please join us in welcoming the following OARC new Members and upgrades in the last 3 months:

- **Deutsche Telekom** as a new Bronze Member
- **Netscout-Arbor** as a new Bronze Member
- **GoDaddy** have upgraded from Bronze to Gold Membership
- **CAIDA** have upgraded from Supporter to Blue Membership

If you'd like to spread the word about the benefits of OARC Membership, you may find our [Brochure](#) and [Briefing](#) documents useful. See also our referral discounts, where 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.

Please contact Sue via [<admin@dns-oarc.net>](mailto:admin@dns-oarc.net) if you have any questions and/or would like to upgrade your membership or donate to support our mission and the DNS community.

4. Software Development

4.1 **dnstperf**

With funding from the Mozilla Open Source Support (MOSS) program, and the **Comcast** Innovation Fund, we've been able to make some significant improvements to *dnstperf*. Phase 1 of this work was completed at end 2020 with the release of v2.4.0.

Phase 2 has now just been completed with *dnstperf* release v2.5.0, this improves the engine for stateful transports.

The final part, phase 3, will add DNS-over-HTTPS support. Subject to available resources, this set of *dnstperf* work is scheduled to be completed by end August.

4.2 **Check My DNS - RPKI**

This work, funded by [the ARIN Community Grant Program](#), is now complete, and adds visibility of RPKI (Resource Public Key Infrastructure) origin validation checks to OARC's [Check My DNS](#) (CMDNS) testing tool. Together with this work, major updates to the core of CMDNS were also performed.

4.3 **New Major dnscap Release**

dnscap release v2.0.0 removes dependencies on libbind, and modernizes the man page & command line options.

See Jerry's separate report and upcoming OARC35 [presentation](#) to find out about other tools new releases, more about our Software Engineering activities, and also news about member software projects of interest. A list of all our software is here:

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

And there is now a [Mattermost chat channel](#) for discussion and support of OARC software.

Finally, don't forget that OARC can develop new, or enhance features of existing, tools via a custom for-hire development contract. OARC Members will receive priority for such work, and at a discounted rate depending on membership tier.

5. Systems Engineering

5.1 OARC's own DNS infrastructure

This has had some overdue attention to get us back in-step with industry best practices. We're now running a hidden authoritative server capable of automated DNSSEC key-rolling, and the *dnsviz.net* zone has been migrated to this.

5.2 Analysis Servers

Our analysis servers have been stuck with a difficult to upgrade non-standard OS for some time, so Matt addressed this in a more maintainable fashion by use of the FAI (Fully Automated Installation) tool. As well as getting these servers to a mainstream OS version, this tool will make server installs, replacements and upgrades much simpler, and is a major stepping-stone to completing the build of our new CEPH-base Data Store.

5.3 New Data-store

This project has moved more slowly than we would have liked since the new storage cluster hardware was installed late in 2020, with challenges imposed by travel difficulties and remote hands availability. Progress however is being made, and we are targeting a go-live of end June.

5.4 DITL 2021

Our annual DNS data-gathering event has once again been completed successfully, and we are grateful to our regular and new contributors for another smooth tranche of data. We are still waiting for some final submissions to come in, and expect the post-processed data for 2021 to be available a few weeks after these are completed.

5.5 Discontinuing Shared DSC service

There no longer seems to be interest in sharing DNS statistics between Members, so it is planned to discontinue this service in the near future. This will not affect the continued development and support of DSC as an OARC open-source software product.

6. Financial, Administrative

OARC is having to move our physical office space from our existing location in Indianapolis, Indiana, USA, to a different facility nearby. Effective 14th May, our new designated place of business address will be:

DNS-OARC
c/o [Co-Hatch Broad Ripple](#)
6151 Central Ave
Suite 115
Indianapolis
IN 46220-1838
USA



As this is mainly used for legal entity registrations, formal correspondence etc, it should not however have any material impact on Member interactions. In particular, our address for payments, invoices etc remains our existing PO Box in Belmont California, and your finance departments should continue to use that address as at present.

In the interests of taking care of our team as we find our way through this pandemic, OARC will be doing another one-week shutdown, between May 10th and 14th. Emergency contacts will still be reachable via e-

mail or phone should any urgent operational issues arise during this time.

The Privacy Committee is continuing its meetings with the aim of modernizing our approach to data-sharing in the Participation Agreement.

Finally, we are grateful for the robust support of our Members, Donors and wider community over the past year. This allowed us to set-aside over \$100k towards our reserves for the first time in OARC's history, and as mentioned elsewhere, to hire new personnel. Our 2021 budget will take us to almost \$1M revenue and expenditure, and will allow for further replacement/upgrade of our infrastructure. You can now see a list of all our recent Grant Awards and Donors at:

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

One further major funded project is being worked on, which we hope to confirm and announce in the coming weeks.

7. **Future workshops**

While the pandemic situation has arguably improved in some ways, the decision for all OARC workshops to be held online-only for the first 9 months of 2021 appears to remain the correct one. We will review the situation mid-year, but it is likely we'll hold a short OARConline 35a event around an August time-frame, and potentially a stand-alone hybrid AGM around October.

We still hope to hold a physical, or hybrid online/physical OARC36 workshop later in the year, however finding an available venue for this is proving to be an additional challenge to the pandemic uncertainty. We are currently considering the possibility of co-locating with any of NANOG83, UKNOF48, or RIPE83 in November, and are aiming to communicate a decision on OARC36 in 2-3 months.

We will be conducting a [survey](#), at and immediately after OARC35, to gather data on feasibility and Member preferences for the remaining 2021 workshops, please let us know what you think.

For 2022, we have so far committed to a physical event for OARC37 co-located with [NANOG84](#) in Austin, Texas, in February, as part of our longer-term annual co-location arrangement with NANOG.

Even as our workshops remain online, opportunities are open 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>](mailto:sponsor@dns-oarc.net) for further information.

Keith Mitchell
OARC President

May 2021