

DNS-OARC Status, Development & Budget

**Keith Mitchell
President
OARC
Spring Workshop & EGM
May 2014**



DNS-OARC

Domain Name System Operations Analysis and Research Center

DNS-OARC

Current Status



DNS-OARC

Domain Name System Operations Analysis and Research Center

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 build relationships among its community of members and facilitate an environment where information can be shared confidentially; to enable knowledge transfer by organizing workshops; to promote research with operational relevance through data collection and analysis; to increase awareness of the DNS's significance; and to offer useful, publicly available tools and services."



DNS-OARC

Domain Name System Operations Analysis and Research Center

OARC's Functions

- Facilitate co-ordination of DNS operations community
- Ongoing data gathering
- Operate community info-sharing resources
 - Mailing lists, jabber, website, trust vetting
- Maintain/host DNS software tools
- Outreach via external and shared meetings



DNS-OARC

Domain Name System Operations Analysis and Research Center

OARC Governance

- Independent legal entity
- Diverse member base
 - direct participation agreements
- Financially self-supporting
 - no cross-subsidies
 - own bank accounts
 - >\$475k annual revenue ~= expenses
- Self-governing, neutral
- Board reflecting member interests
- *501(c)3* non-profit public benefit corporation



DNS-OARC

Domain Name System Operations Analysis and Research Center

OARC Board

- John Crain, ICANN, Director
- Ondrej Filip, CZ.NIC, Chairman
- Chris Griffiths, Dyn, Director
- Matt Pounsett, Afilias, Treasurer
- Antoin Verschuren, SIDN, Director
- Duane Wessels, Verisign, Director



DNS-OARC

Domain Name System Operations Analysis and Research Center

DNS-OARC Staff Resources

- President, Secretary (Keith Mitchell)
 - 0.75 FTE
- Systems Engineer (William Sotomayor)
 - 1.0 FTE
- Events (Denesh Bhabuta)
 - 0.1 FTE
- Under contract from ISC:
 - Finance/Admin functions (Pam Stone)
 - Infrastructure services (Jim Martin/Ops)



DNS-OARC

Domain Name System Operations Analysis and Research Center

2013/4 Achievements

- Executed on Strategic Development Plan
- Increased staff from 0.6 to ~2FTE
- Governance Rationalization
- Revenue growth from \$270k to \$475k
- Major infrastructure overhaul
- Significant cash and hardware donations
- Facilitated ICANN *Name Collisions* study
- DITL 2014 data gathering completed



DNS-OARC

Domain Name System Operations Analysis and Research Center

Welcome New OARC Members ☺

- Farsight
- CORE
- XYZ
- Eesti Internet
- Radix
- DNSpod
- Sky
- Orange
- Cloudmark



DNS-OARC

Domain Name System Operations Analysis and Research Center

Upgraded OARC Members

- APNIC: Beneficial → Silver
- Dyn: Bronze → Silver
- Microsoft: Silver → Platinum
- NIC.BR: Bronze → Silver

Thank You !



DNS-OARC

Domain Name System Operations Analysis and Research Center

OARC Infrastructure Re-Development

- Major progress has been made in past year
- Purge and update of legacy hardware that was running too-old software with not enough TLC
- Have re-built most capability from scratch on modern platforms, 95% migrated & documented
- Have also deployed major hardware donations
 - Thank You NTAG members and ICANN 😊
- See William's presentation....



DNS-OARC

Domain Name System Operations Analysis and Research Center

2013 Donations Thank You !

- Verisign
 - \$50k one-off donation
 - Keith/William time, Root-Ops jabber servers
- ICANN
 - 1 x Dell r815, 3 x Dell r820 analysis servers
 - Workshop underwriting
- Donuts, Demand Media
 - 2 x Dell r810 analysis servers
- Farsight
 - 6 x Sun X4500 storage servers
- Currently negotiating major offer of other-site hosted server cloud



DNS-OARC

Domain Name System Operations Analysis and Research Center

Workshop Sponsorship

- Formalization of previous ad-hoc arrangements
 - Helps us cover costs and recognize supporters
- Sponsor benefits documented at:
 - <https://www.dns-oarc.net/files/meeting-sponsor.pdf>
- Thank you for your support !
 - **Microsoft, Verisign, Dyn, NZRS**
 - **ICANN** hosting Fall 2013 workshop in Los Angeles
- Looking for future workshop sponsors...
please contact Denesh



DNS-OARC

Domain Name System Operations Analysis and Research Center

OARC Development Strategy



DNS-OARC

Domain Name System Operations Analysis and Research Center

OARC Development Progress

- Oct 2013 Board determined to “re-boot” the organisation
- Published document, to report Member survey and Board retreat results back to the Members, and define a plan for OARC's future development:
 - May 13: https://www.dns-oarc.net/files/workshop-201305/Strategy-2013_report.pdf
- Board reviewed progress against Development Plan at F2F meeting in March 2014, satisfied that OARC is on-track with objectives 1 year into 3-year plan



DNS-OARC

Domain Name System Operations Analysis and Research Center

OARC Development Progress

- Priority for 2014 is to use increased revenue base and some accumulated surplus to:
 - enable further project development
 - achieve further member and revenue growth
 - grow staff resources
- Board will have further retreat in Q1 2015 to do full review of progress against plan



DNS-OARC

Domain Name System Operations Analysis and Research Center

The “Bootstrap” Issue

- ~2.0 FTEs total lets you run an organisation, *or* grow and develop it, but **not** both at same time
- Previous staff have struggled with this, and we remain at risk of further instability while this situation continues
- Ideally we need 4-5 FTEs for sustainable autonomy
- Organic growth (e.g. +10% revenue per year) is not sufficient to escape this
- Good news is large-scale storage hardware CapEx is a lot cheaper than it used to be



DNS-OARC

Domain Name System Operations Analysis and Research Center

Our “Ideal” OARC: Expenses

- Around \$400k/year running costs:
 - Infrastructure
 - Workshops, travel
 - Admin
 - Overheads
- Around \$600k/year staff costs:
 - Engineering: *2 FTE*
 - Project Management: *1 FTE*
 - Outreach/sales/marketing: *1 FTE*
 - Admin/Finance: *1 FTE*
 - Leadership: *1 FTE*



DNS-OARC

Domain Name System Operations Analysis and Research Center

Our “Ideal” OARC: Resource Growth

- Increase outreach to grow revenue by +30% for each of 3 years
 - reduce proportion of non-paying members
- Member funding of new projects/services
- Member in-kind donation of staff resources
- Meeting sponsorship
- Use some of >\$100k accumulated reserves



DNS-OARC

Domain Name System Operations Analysis and Research Center

Our “Ideal” OARC: Funding

Subscriptions	\$650-700k
New Projects/Services	\$200-300k
In-kind donations	\$150k
Sponsorship	\$50k
Reserves (year 1 only)	\$0k-\$100k
TOTAL	\$1.05M-\$1.3M



DNS-OARC

Domain Name System Operations Analysis and Research Center

Planned 2014 Budget Staff Resource Increases

- Project Development: *~1.0 FTE*, Q3-Q4
- Admin: *0.5 FTE*, Q2-Q4
- Software Engineer: *1.0 FTE*, Q4
- Website/Workflow: *one-off contract*

These will be contractor rather than employee positions, vacancies to be posted during June 2014



DNS-OARC

Domain Name System Operations Analysis and Research Center

New Projects and Services

- **Focus** on possibilities which give most benefit to OARC's members and address its sustainability needs
 - seek new funding from members and other grant sources
 - experience to date indicates dedicated resource is needed to define projects, solicit funds and manage development
- Possibilities include:
 - Next-Generation Domain Statistics Collection ("DSC++")
 - DNS Benchmarking
 - TLDMON
 - Zone flush notification service



DNS-OARC

Domain Name System Operations Analysis and Research Center

DNS-OARC 2014 Budget



DNS-OARC

Domain Name System Operations Analysis and Research Center

DNS-OARC Financials

- Accounts for 2013 have once again been audited with clean bill of health, pending Board sign-off
- 2014 budget based on 30% annual target revenue growth from development plan



DNS-OARC

Domain Name System Operations Analysis and Research Center

Financial Overview

	2012	2013	2014 YTD	2014 Budget
Income	\$267k	\$440k	\$144k	\$683k
Expenses	\$176k	\$337k	\$112k	\$742k
Assets	\$209k	\$405k	\$460k	
Cash	\$165k	\$295k	\$291k	\$235k



DNS-OARC

Domain Name System Operations Analysis and Research Center

Income Summary

	2012	2013	2014 YTD	2014 Budget
Member fees	\$191k	\$311k	\$126k	\$493k
Donations	\$0k	\$93k	\$10k	\$40k
Workshop Sponsorship	\$0k	\$36k	\$8k	\$50k
Project Funding	\$0k	\$0k	\$0k	\$100k
TOTAL	\$191k	\$440k	\$144k	\$683k



DNS-OARC

Domain Name System Operations Analysis and Research Center

Expenditure Summary

	2012	2013	2014 YTD	2014 Budget
Consultants/ Professional	\$123k	\$235k	\$82k	\$476k
Capital Equipment	\$7k	\$20k	\$20k	\$95k
Co-location	\$12k	\$8k	\$6k	\$18k
Other	\$41k	\$74k	\$4k	\$153k
TOTAL	\$176k	\$337k	\$112k	\$742k



DNS-OARC

Domain Name System Operations Analysis and Research Center

Governance



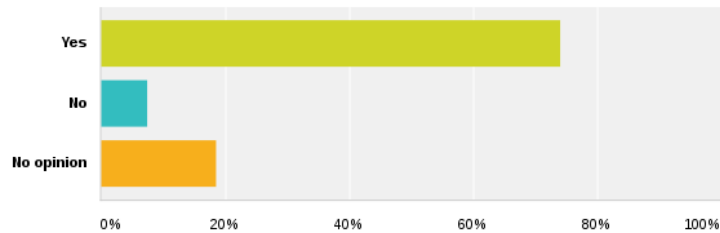
DNS-OARC

Domain Name System Operations Analysis and Research Center

“Special” Membership Categories

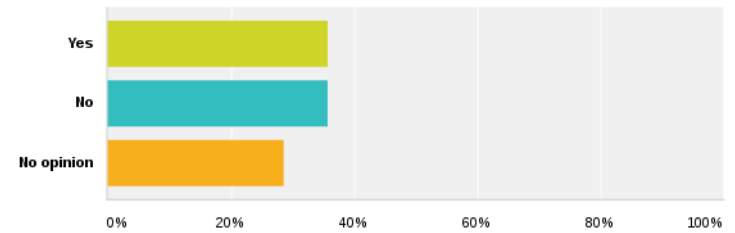
Do you think non-paying "Beneficial" members add value to OARC ?

Answered: 27 Skipped: 18



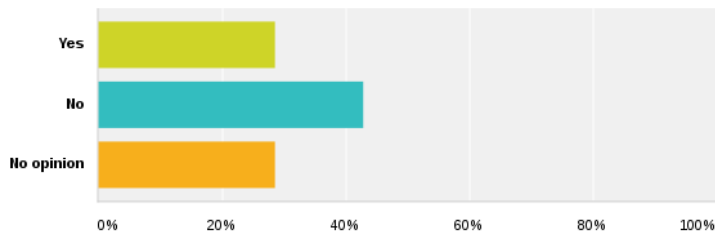
Do you think non-paying non-member Participants add value to OARC ?

Answered: 28 Skipped: 17



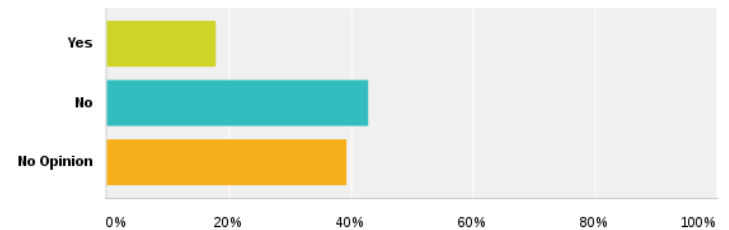
Do you think the Root Operators should have special status within OARC ?

Answered: 28 Skipped: 17



Do you think that the OARC Secretariat Provider should have a Board seat ?

Answered: 28 Skipped: 17



DNS-OARC

Domain Name System Operations Analysis and Research Center

Governance Changes Progress

At 2013 AGM:

- normalised the "Special" Board seats
 - converted Secretariat and Root-Ops seats to At-Large
- moved the AGM date from June to September
- proposal to formally remove voting rights for Beneficial members sent back to Board for further review

At 2014 EGM:

- reduce quorum from one-half to one-third of members
- allow e-voting
- anti-capture provisions



DNS-OARC

Domain Name System Operations Analysis and Research Center

Governance Changes Planned

Planned for 2014 AGM:

- rationalise multiple non-paying *Participant* categories
- new entry-level Membership category (“Blue”)
 - restricted by revenue/staff size
- new modular Membership/Participation/Data-Sharing Agreement(s)



DNS-OARC

Domain Name System Operations Analysis and Research Center

Questions ?



DNS-OARC

Domain Name System Operations Analysis and Research Center

Contacting OARC

- Member Portal:
 - <https://portal.dns-oarc.net/>
- [<admin@dns-oarc.net>](mailto:admin@dns-oarc.net) +1 650 423 1344
 - [<keith@dns-oarc.net>](mailto:keith@dns-oarc.net) +1 650 423 1348
 - [<wfms@dns-oarc.net>](mailto:wfms@dns-oarc.net) +1 650 423 1447
 - [<denesh@dns-oarc.net>](mailto:denesh@dns-oarc.net) +1 650 423 1455



DNS-OARC

Domain Name System Operations Analysis and Research Center