OARC28 Workshop
San Juan, Puerto Rico
8-9 March 2018

MEETING HOST

OARC Update

Keith Mitchell
OARC28
March 2018

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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2017/8 Achievements

- First fiscal surplus in 3 years !

- Special DITL collection for Root ZSK size increase

- DNSCAP RSSM software development (funded by Verisign)

- Follow-on Comcast Development Grant funding for evolution of *drool* DNS Replay Tool into *dnsjit*

- Took over ownership of DNSCAP and PacketQ tools

- Physical office re-re-location to Indiana completed

- Changed Board Director election model

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OARC's Members

Welcome New OARC Members!
(since OARC27, Sep 2017)

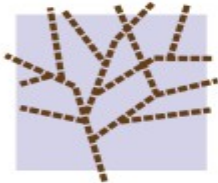| Participant	Level
Univ. of Passo Fundo	Supporter
Colorado State Univ.	Supporter
SURFnet	Bronze
Facebook	Bronze
MSK-IX	Bronze
Shaw Communications	Bronze

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Member Upgrades

VeriSign upgraded from
Platinum to Diamond

CIRA upgraded from
Bronze to **Silver**

Thank You !

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Recent Member Losses

- Anomali, Bluecat, BII, Catchpoint, Rightside, Sky
  (6 * Bronze)

- This is disconcerting ☹, but seems to have been a year-end one-off

- Most of the above were not very engaged

- Much M&A and investor activity in our sector currently ☹

- We are working on an action plan to identify and better engage "at-risk" Members

- Also working on subscription transition plan when 2 Members merge

- We are being more rigorous about tracking & purging Supporters who do not contribute

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OARC Governance

- Independent legal entity

- Diverse member base

- Financially self-supporting

  - ~$7-800k 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

- Member-only business session later

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2017-8 OARC Board

- David Lawrence, Director
- George Michaelson, *APNIC*, Director
- Jacques Latour, *CIRA*, Treasurer
- Jaromir Talir, *CZ.NIC*, Director
- Ondrej Sury, *ISC*, Director
- Duane Wessels, *Verisign*, Chairman

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2018 OARC Programme Committee

- Piet Barber, *Verisign*

- Ray Bellis, *ISC* (Chair)

- Robert Edmonds, *Fastly*

- Ralph Dolmans, *NLnet Labs*

- Anand Buddhdev, *RIPE NCC*

- Shumon Huque, *Salesforce*

- Ricardo Schmidt, *UPF*

- Jacques Latour (OARC Board Liaison)

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DNS-OARC Staff Resources

- President, Secretary (*Keith Mitchell*, Indiana) 0.75 FTE

- Systems Engineer (*William Sotomayor*, Ontario) 1.0 FTE

- Software Engineer (*Jerry Lundström*, Stockholm) 1.0 FTE

- Membership Coordinator (*Sue Graves*, Oregon) **0.75** FTE

- Events Coordinator (*Denesh Bhabuta*, London) 0.5 FTE

- Book-Keeper (*Pam Stone*, California) 0.1 FTE

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OARC Indiana Office

- *c/o PIN Bureau*
  Suite 10#5
  325 S College Ave
  Indianapolis
  IN 46203, USA

- Note payments still go to Belmont, CA address

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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 Strategy 2017➔

- OARC's current strategy is successful

    - needs enhanced rather than overhauled

- No longer run OARC at deficit to achieve growth

- Adjust Membership and Workshop fees to changing market conditions

- Consult and Engage Members

- Develop more structured methodology for workshop selection

- Leverage Board/Officer resources including via working groups

- Data Privacy needs further work

- Role in incident/operational security is as facilitator rather than actor

- Prioritize opportunities by (1) Revenue (2) Reputation (3) Relevance

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Analysis Infrastructure

- Some recent confusion about export of "derivative" data from OARC servers

- Even if it is analysis output, you **must** have OARC first verify that any data is properly anonymized before copying it off our servers. If in doubt, *ask* first.

- Lack of storage local to analysis servers has been an issue for some researchers

  - We have identified a cost-effective way to address this

  - But **please** delete the scratch output in your $HOME on our servers when you are done

- 2018 budget includes more powerful, user-dedicated analysis servers

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DNS-OARC Financials

- 2017 finished with on-target **surplus** of ~$35k

- 2016 Financial Statements once again audited with clean bill of health

- 2017 figures are *unaudited*

- 2018 YTD figures are for Jan-Feb

- Cash reserves continue strength ~$340k 2017/8

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Financial Overview

	2016	2017	2018 YTD	2018 Budget
Income	$628k	$697k	$97k	$835k
Expenses	$727k	$663k	$99k	$815k
Assets	$360k	$365k	$433k	
Cash	$293k	$341k	$276k	$312k

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Income Summary

	2016	2017	2018 YTD	2018 Budget
Member fees	$506k	$565k	$97k	$650k
Donations	$25k	$42k	$0k	$40k
Workshop Sponsorship, fees	$82k	$37k	$0k	$95k
Project Funding	$15k	$53k	$0k	$50k
TOTAL	$628k	$697k	$97k	$835k

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Expenditure Summary

	2016	2017	2018 YTD	2018 Budget
Consultants/ Professional	$461k	$481k	$74k	$551k
Capital Equipment	$40k	$18k	$3k	$49k
Co-location	$21k	$27k	$5k	$27k
Workshops	$88k	$44k	$7k	$70k
Other	$117k	$93k	$10k	$118k
TOTAL	$727k	$663k	$99k	$815k

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OARC Workshops

- Feedback from multiple Member surveys indicates strong preference for:

  - 2 workshops per year, 1½-2 days long

  - co-location with RIPE/NANOG/ICANN/IETF meetings

- Have developed methodology for future site selection

- Location principles:

  - rotate among above events

  - rotate among geographic regions

  - reduce costs through partner hosting arrangements

  - in-region outreach

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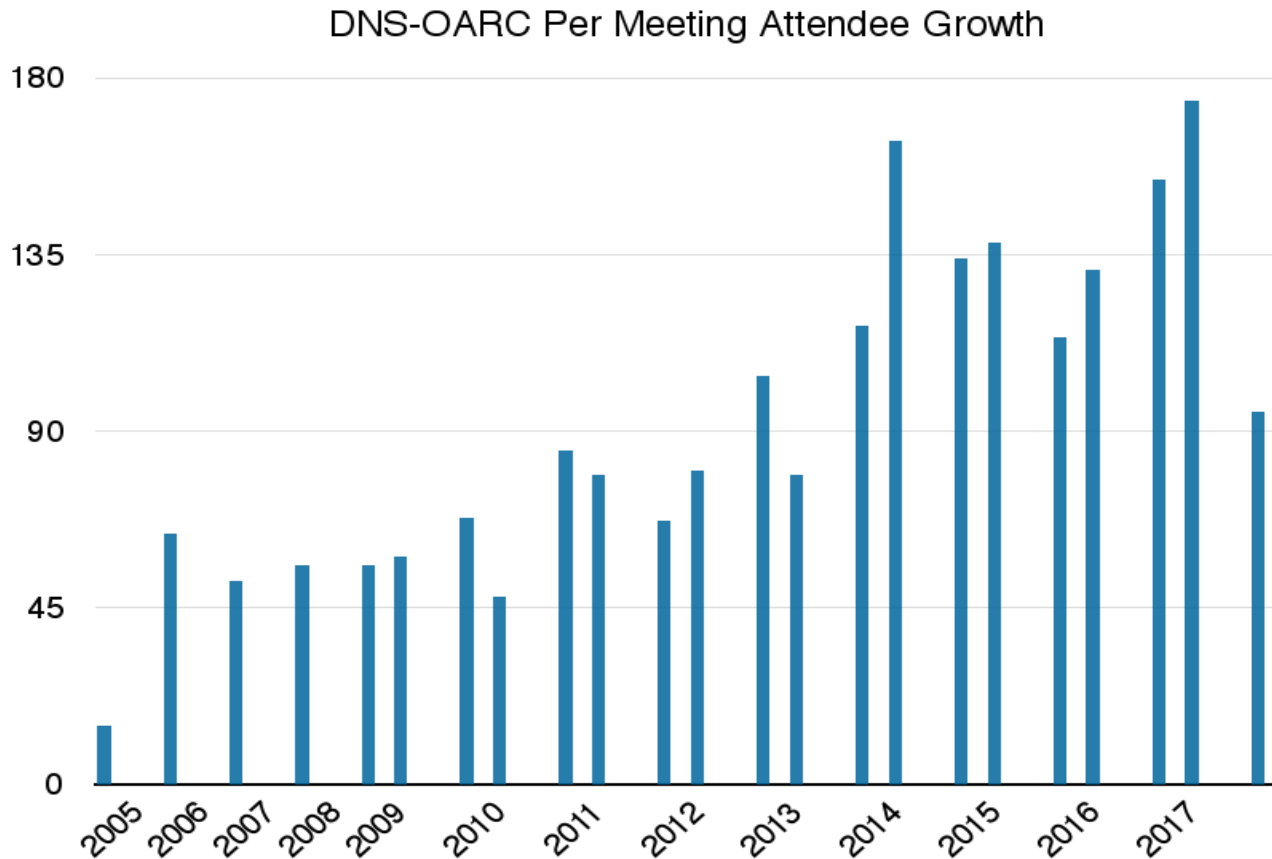
Workshop Co-location Cost/Benefits

- From survey:

  - Average co-location saving per attendee per workshop:

    - $2,673

  - Registration fee to gain this saving

    - 77% of attendees willing to pay up to $300
    - 20% of attendees willing to pay up to $450

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Workshop Attendance

DNS-OARC Per Meeting Attendee Growth

Workshop Sustainability

- Always seeking sponsors !

  - https://www.dns-oarc.net/files/meeting-sponsor.pdf

  - changes in our industry are making sponsorship harder to get

- The Board has determined we should migrate to full meeting cost-recovery through registration fees for *all* attendees from OARC29

  - some level of discount likely for Member contacts

  - we also need to simplify our registration model/implementation

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Future Workshops

- OARC29
  - Co-located with RIPE76 and CENTR Tech
  - 12-13th October 2018
  - Amsterdam

- OARC30, 31 likely*:*
  - *AP region (Spring)* or
  - *LAC region (Fall)* also
  - *NANOG*
- *TBC*

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2018 Plans

- Further funded software tool development

- DITL2018 and Root KSK-roll collections

- Pilot new DNS stats data-sharing platforms

- Upgrade analysis capacity/cluster

- Implement Conduct and Reserves policies

- Workshop registration cost-recovery

- Prepare for growth to $1M revenue by 2019

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Questions ?

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DNS-OARC Recognition Awards

- For serving a full 3-year term on the Programme Committee:

  Mauricio Vergara Ereche (*ICANN*)

  Geoff Huston (*APNIC*)

- Thank You !!

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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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