



DNS-OARC

Domain Name System Operations Analysis and Research Center

OARC 26, Madrid, May 2017

HOSTED BY



ICANN

PREMIUM SPONSOR



VERISIGN®

PATRON SPONSOR



What is Where

- WiFi **SSIDs** + *PSKs*:
 - Inside Gran Madrid Room:
 - **ICANN-Meeting** *Madrid2017*
 - Outside Gran Madrid Room:
 - **ICANN-Madrid** *ICANN2017*
- Thank You to ICANN for hosting us !
 - Co-location with GDD/RoW/Symposium is experiment
 - Hope travel from RIPE74 was not too arduous
 - Please let us know what you think



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What is Where

- Fire alarm procedure
- Dietary requirements
- PGP signing session (needs volunteer !)
 - Monday lunch break at 1pm
 - Keys to <pgpsign@dns-oarc.net>
- Badge lanyards:
 - Staff, Board, PC
 - First timers
 - All others
 - Please return lanyards to desk when you leave



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We are Webcasting

- Google Hangouts/YouTube:
 - <https://www.youtube.com/c/DnsoarcNetPlus>
- Jabber room:
 - <xmpp://dns-operations.dns-oarc.net>
- Please set your beeping devices to silent
- Please queue at microphone stand, and identify yourself & affiliation before asking a question
- Social media hashtag *#OARC26*



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Speakers

- Please see me if:
 - You didn't upload your slides yet
 - You have special AV requirements
- Good timekeeping helps 😊
- Timeslots *include* Q&A
 - *countdown is to end of slides*
- Devices → ✈ mode
- We appreciate your contribution !



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Domain Name System Operations Analysis and Research Center

DNS-OARC Status Update

Keith Mitchell

OARC26

May 2017

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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Recent Achievements

- Strategic Board and Staff Retreat in Feb 2017
- Diverse resilient site in Ottawa, Canada locations
- Record >10TB DITL 2017 data gathering completed
- Special DITL for Root ZSK size increase
- Comcast Development Grant funding for and release of *drool* DNS Replay Tool
- Taking over ownership of DNSCAP and PacketQ tools
- Collating RSSAC-002 data from *all* root operators
- Physical office re-location California to Ohio
 - now fully autonomous from ISC



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Welcome New OARC Members!

(since October 2016)

Participant

Level

ARIU

Supporter

BYU

Supporter

Telecom Bretange

Supporter

CENTR

Supporter (*reciprocal*)

PCH

Blue

Snake Hill Labs

Bronze (*in kind*)

Nameshield

Bronze

More New OARC Members!

(since October 2016)

Participant

Level

ISOC

Bronze

NS1

Bronze

Craigslist

Bronze

DNS Belgium

Bronze

Fastly

Bronze

DomainTools

Bronze

Amazon

Bronze

Thank you Upgraded Members!

- Platinum to Diamond (*new level* *)
 - Verisign
- Bronze to Silver
 - SWITCH
- Supporter to Blue
 - University of Maryland

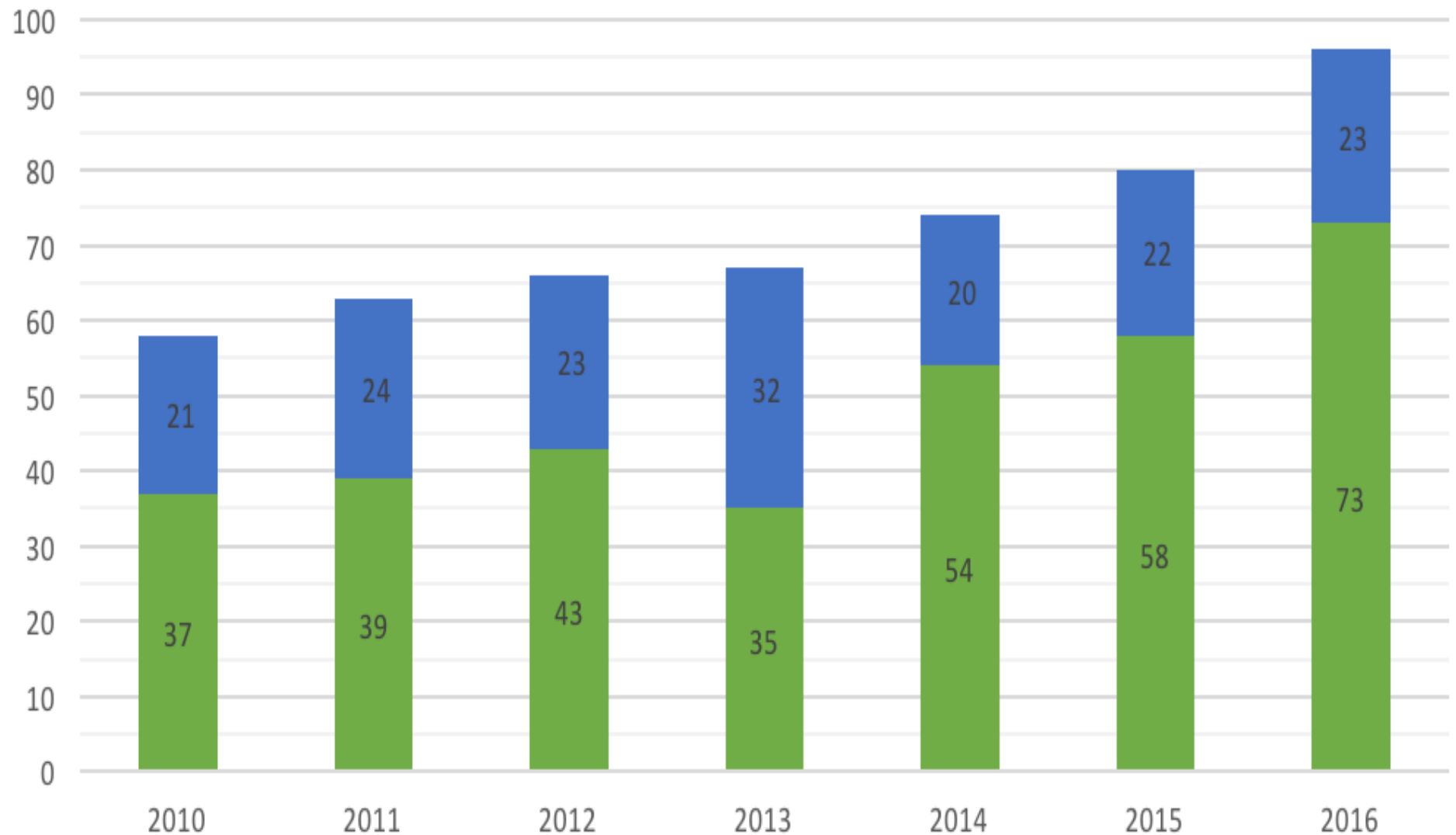


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Yearly OARC Membership 2010-2016

■ Paid Members ■ Unpaid Members



OARC Governance

- Independent legal entity
- Diverse member base
- Financially self-supporting
 - ~\$700k 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



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2016-7 OARC Board

- Paul Ebersman, *Comcast*, Chairman
- Jacques Latour, *CIRA*, Director
- Liam Hynes, *Oracle*, Director
- George Michaelson, *APNIC*, Director
- Ondrej Sury, *CZ.NIC*, Co-Chair
- Duane Wessels, *Verisign*, Treasurer



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Recent Board Changes

- OARC Board positions belong to Member organizations, not the elected individuals
- This has lately led to a lot of composition changes due to people switching jobs mid-term:
 - e.g. Comcast, Dyn, Afilias seats in past 2 years
- Consequences:
 - admin overhead of switching
 - lack of continuity within Board
- More common practice within industry is Board appointments belong to persons not organizations
 - do we want to consider this for OARC ?



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2017 OARC Programme Committee

- Piet Barber, *Verisign*
- Ray Bellis, *ISC* (Chair)
- Robert Edmonds, *Fastly*
- Mauricio Vergara Ereche, *ICANN*
- Geoff Huston, *APNIC*
- Shane Kerr, *Oracle*
- Marten Wullink, *SIDN*
- Jacques Latour (OARC Board Liaison)



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DNS-OARC Staff Resources

- President, Secretary (*Keith Mitchell*, Ohio) 0.75 FTE
- Systems Engineer (*William Sotomayor*, Ontario) 1.0 FTE
- Software Engineer (*Jerry Lundström*, Stockholm) 1.0 FTE
- Membership Coordinator (*Sue Graves*, Oregon) 0.5 FTE
- Events Coordinator (*Denesh Bhabuta*, London) 0.25 FTE
- Book-Keeper (*Pam Stone*, California) 0.1 FTE



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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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2017 Retreat

- Do these roughly every 2 years to review strategy
 - have been working from 2013 strategic plan
 - largely achieved objectives in it
- 31st Jan to 2nd Feb 2017, Reston, VA
- Thank you Verisign for hosting & facilitation
- All of Staff+Board overlapping over 3 days



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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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DNS-OARC Financials

- Draft 2016 Financial Statements once again indicate audited with clean bill of health
- 2016 finished with \$100k *planned* deficit
 - on-paper only, actual \$10k *cash* deficit
- Budget for 2017 targets **break-even** with no further deficits
- 2017 YTD figures are for Jan-Apr
- Cash reserves remain strong >\$250k



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Financial Overview

	2015	2016	2017 YTD	2017 Budget
Income	\$535k	\$628k	\$181k	\$739k
Expenses	\$612k	\$727k	\$182k	\$707k
Assets	\$378k	\$360k		
Cash	\$303k	\$293k	\$256k	\$324k



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Income Summary

	2015	2016	2017 YTD	2017 Budget
Member fees	\$456k	\$506k	\$181k	\$623k
Donations	\$10k	\$25k	\$0k	\$0k
Workshop Sponsorship, fees	\$69k	\$82k	\$0k	\$80k
Project Funding	\$0k	\$15k	\$0k	\$36k
TOTAL	\$535k	\$628k	\$181k	\$739k



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Expenditure Summary

	2015	2016	2017 YTD	2017 Budget
Consultants/ Professional	\$385k	\$461k	\$142k	\$483k
Capital Equipment	\$63k	\$40k	\$5k	\$26k
Co-location	\$12k	\$21k	\$11k	\$26k
Workshops	\$76k	\$88k	\$0k	\$74k
Other	\$76k	\$117k	\$24k	\$124k
TOTAL	\$612k	\$727k	\$182k	\$707k



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OARC Workshops

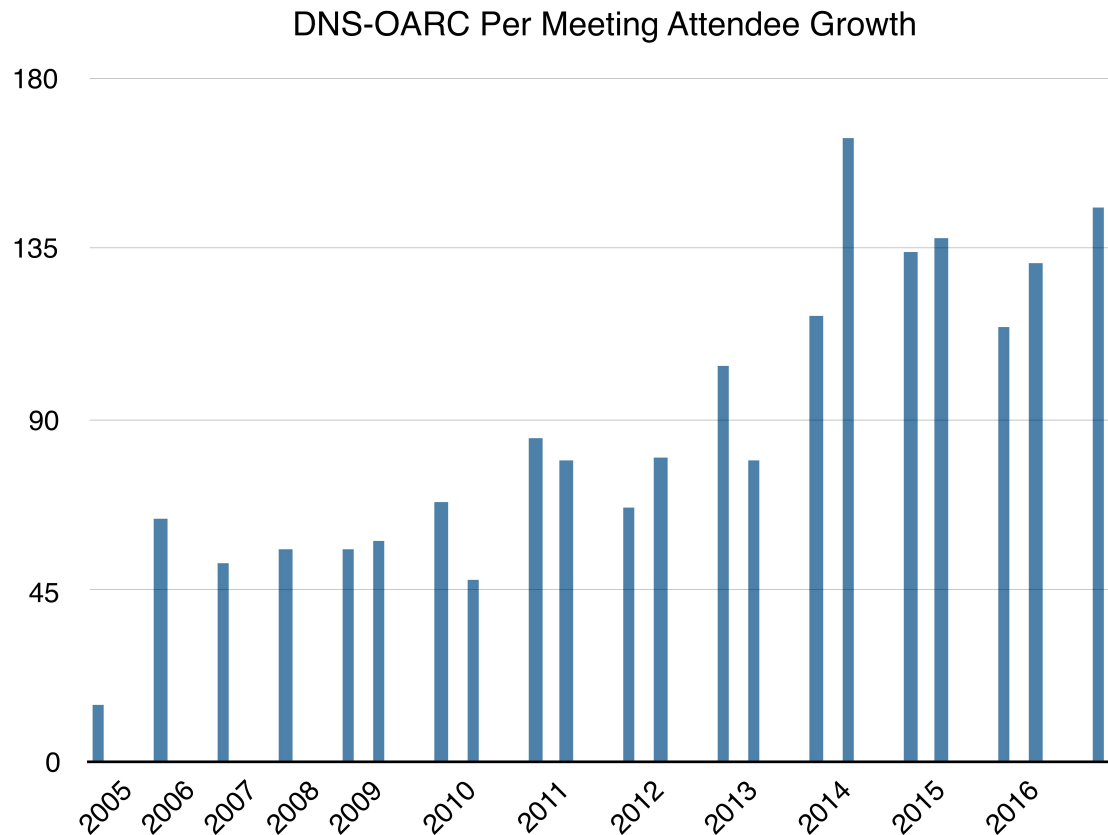
- 2 workshops per year
- 1½-2 days long
- Co-locate with RIPE/NANOG/ICANN/IETF
 - this has been challenging for 2017
 - have developed methodology for future site selection
 - please see survey to try and better handle on co-location benefits vs challenges
- Always seeking sponsors !
 - <https://www.dns-oarc.net/files/meeting-sponsor.pdf>



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Workshop Attendance



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Workshop Co-location Challenges

- Co-locating with other major Internet meetings is getting harder and more expensive
 - taking longer to confirm dates
- Saves attendee time and costs, but demands more OARC resources to plan and host
- Retreat output was to try and quantify costs vs benefits

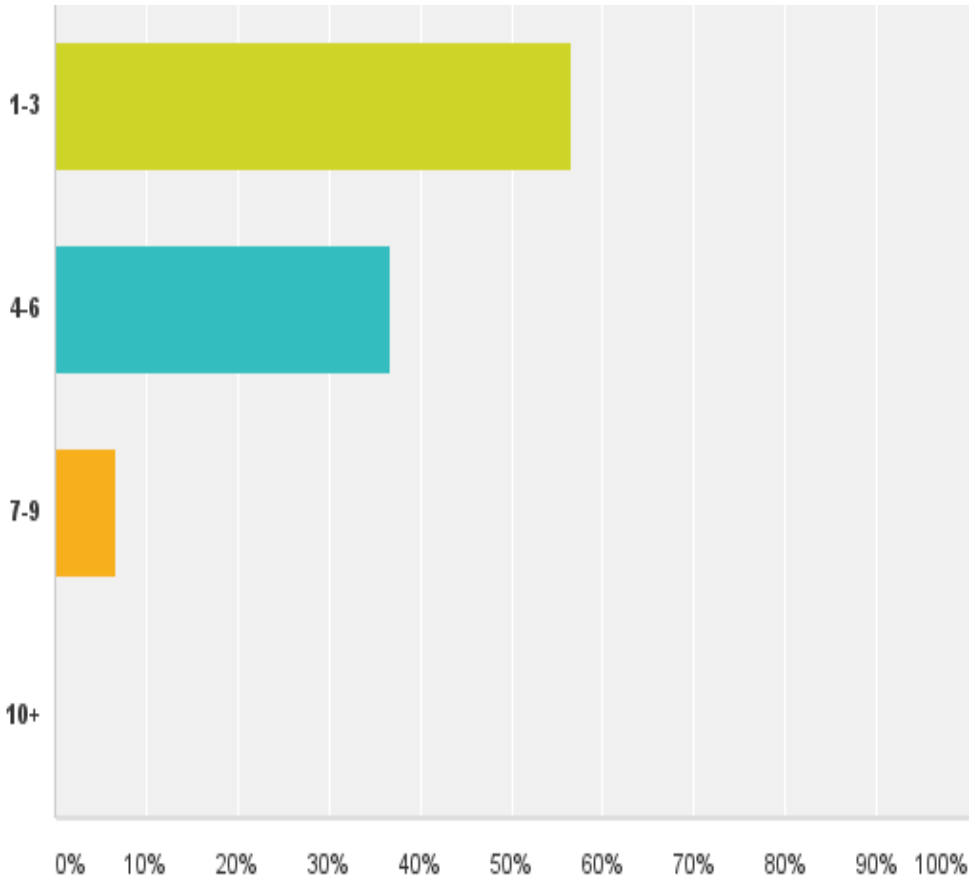


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Q1: How many days per year of your time does co-location of OARC workshops with other Internet events save you, compared with if OARC workshops were stand-alone ?

Answered: 30 Skipped: 0



Quantifying 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 registration fees

- Actual hard costs of workshops are ~\$400/attendee
- Assuming current levels of sponsorship:
 - No charge for Members, \$400 for others:
60%
 - \$200 charge for everyone:
23%
- For less sponsorship:
 - \$400 charge for everyone:
17%



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Other Workshop Survey Take-aways

- Desire for 3rd workshop/year highly dependent on specifics
- Most interest in adding workshops in AP and LAC regions
- Potentially problematic destinations:
 - USA, Russia, Middle East, Southern hemisphere
 - distance, health, immigration, safety surveillance
- Strong interest (80%) in having additional content via posters at workshops



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Future Workshops

- OARC27
 - 29-30 September 2017
 - NANOG71, San Jose
 - *keeping non-US contingency venue in mind*
- OARC28
 - Likely LAC or AP region, *TBC*
- OARC29
 - Co-located with RIPE76 and CENTR Tech



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2017 Plans

- Implement retreat strategy
 - survey Members on data privacy attitudes
 - establish Data Privacy sub-committee
- Upgrade analysis capacity/cluster
- Consolidate/re-locate Canadian site(s)
- Further physical office re-location Ohio->Indiana
- Special DITLs for root KSK rollover
- Prepare for growth to \$1M revenue by 2019



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Questions ?



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Presented to

Sebastian Castro

*In Grateful Appreciation for your Outstanding
Service and Leadership to the DNS-OARC Community
Programme Committee Jan 2014 - Dec 2016*

Lightning Talks & Survey

- Room at end-Monday for up to 4 x 10-15 minute late-breaking talks
- If you have something to present, please e-mail abstract for review by PC to <submissions@dns-oarc.net> by 16:00 CEST today
- <https://www.surveymonkey.com/r/oarc26-day-1>



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Social Event

- Sunday 14th evening at 19:00 CEST
 - *Taberna del Chato*
35 Calle de la Cruz
28012 Madrid
- *Metro:*
 - *Line 10 from Cuzco to Tribunal (5 stops)*
change to Line 1 and disembark at Sol (2 stops)
venue is a 5 minutes walk from Sol station
- Badges + sticker required
 - Get a sticker by RSVPing on Eventbrite
 - <https://oarc26-social.eventbrite.com/>



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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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