





Office of the CTO (OCTO)

David Conrad | Tech Day@Dublin 54 | September 2015

Mission

To constantly improve knowledge about the identifiers ICANN helps coordinate; to disseminate this information to the Internet community; to improve the technical operation of the Internet's system of unique identifiers; and to improve ICANN's technological stature.



In Other Words

- The Office of the CTO (OCTO) will:
 - Research issues related to the Internet's system of unique identifiers (domain names, IP addresses/AS numbers, protocol parameters)
 - Support improving the Security, Stability, and Resiliency of those identifiers
 - Provide internal and external "Internet Technology Resources"
 - Training, data, research, information, consulting, etc.



The Team

- David Conrad (CTO)
 - Roy Arends: DNS and DNSSEC
 - Alain Durand: Network Numbers & IETF
 - Paul Hoffman: DNS, crypto, & testing
 - o **Ed Lewis:** Registry-related protocols
- John Crain (CSSRO)
 - o Carlos Alvarez: SSR Tech Engagement
 - Steve Conte: Training Coordination
 - o **Richard Lamb:** DNSSEC Program Manager
 - Dave Piscitello: Security & ICT Coordinator
- Cathy Petersen (Exec Assistant): Cat Herding





















Current Major Projects

- Implementation of the Transition of Stewardship of the IANA Functions (DRC)
- Board Advice Registry (DRC)
- SSR Review Team
 Recommendation
 Implementation (DRC)
- DNSSEC Key Signing Key Rollover Plan (Ed)
- Middlebox and DNS
 Recursive Server Testing
 (Paul)

- Root Server Data Analytics (Roy)
- DNS Related Forensics (Roy)
- IANA Transition Track 3 (Alain)
- Internet Health Indicators (Alain)
- IPv4 Address Market (Alain)
- "Digital Object" Architecture (Alain)
- DNSSEC Awareness/Adoption/
 Deployment/Training (Rick)
- Global Security Engagement (John, Dave, Carlos)
- Technology and Security Training (Steve)



Ongoing Activities

- Technical Resource Support for:
 - AOC Reviews
 - ATRT
 - Security, Stability and Resiliency (SSR)
 - Competition, Consumer Choice & Consumer Trust (C⁴T)
 - Whois
 - ACs and SOs
 - ICANN's Board
 - GDD Operations
 - Policy Development
- O Also:
 - Providing Data Analytics
 - Supporting RSEP/RSTEP
 - Reviewing all communications for technical accuracy
 - Providing consultative support to other departments
 - Training staff and the community on Internet Identifier Technologies

- Security, Stability, and Resilience Support:
 - DNS training for ccTLD operators, investigators & public safety community
 - Global identifier threat awareness and response (botnet, ddos, other attacks against or that exploit identifier systems)
 - Proof of concept projects
 - Automated tool to collect identifier system abuse information
 - Malicious registrations in new TLDs
 - Security awareness raising publications
 - Technical engagement with policy and governance communities (OECD, IGF, EU, Commonwealth, OAS, CICTE, etc.)
 - Support for public safety community working group



We're Here to Help

- Internally:
 - Provide support/answers/ consulting on the technology ICANN coordinates
- Externally:
 - Same as internal
 - Improve the state of the art for the Internet's system of unique identifiers



Questions?

