# DNS-MODA

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# dns://moda

# Introduction

- Why DNS-MODA?

- What is it?

- Who's behind it?

- How is it structured?

- What will it do?

- Potential Members

- Immediate plans

# Why DNS-MODA?

- Slow progress of DNS standards at IETF

- No obvious forum for other important DNS activities

  - Production of APIs

  - Conformance testing

  - Benchmarking

- Coming DNS developments will make things worse

  - ENUM, 3G, Ad-hoc (IPv6) networking, RFID tags, identity management, UCIs, etc.

# DNS at IETF

- Lots of frustration with IETF process

  - Lack of progress: DNSSEC, LLMNR, etc.

    - Working Group "holy wars"

  - Difficult engagement process for new entrants

    - Which WG?

- WG activity is largely on a spare time, goodwill basis

  - Volunteer effort model is not really sustainable

  - Few companies making money from DNS to justify spending engineering resources in WGs

# DNS at IETF - continued

- Dedicated efforts have produced results

  - DNSSECbis document drafts

    - Editors paid to work full-time on the drafts

    - External funding for document editors meant a timely and coherent document set was produced

- This proof of concept shows a way to make progress

  - Externally funded engineers dedicated to producing results in DNS Working Groups

  - Perhaps bring similar resources and efforts to other aspects of DNS standards development?

# Filling The Void

- Can't wait for IETF to reform itself

  - What does industry & DNS world do meantime?

  - What about DNS activities IETF does not address?

- Need "something else"

  - Clear focus, dedicated efforts

  - Predictable, timely outcomes

- DNS-MODA

  - DNS Manufacturer's Operator's & Developer's Association

# What is DNS-MODA?

- Soundbite version: externally funded Design Team for the DNS

- Basic principles:

  - Fee-paying membership organisation

  - Not for profit

  - All output in the Public Domain

  - Open, impartial and vendor-neutral

  - Employ DNS engineers to work full-time on protocol

# What DNS-MODA isn't

- DNS-MODA is not:

  - A standards-making body

  - An attempt to undermine IETF

    - It will work with IETF

    - DNS-MODA output submitted as I-Ds

  - Fragmenting the DNS protocol

  - Producing proprietary solutions

    - All DNS-MODA output in Public Domain

# DNS-MODA & IETF

- From IETF perspective DNS-MODA is an externally funded Design Team

  - Well understood model that has been used before:

    - SNMP, MIME, SIP, etc. activity

  - Relevant output from DNS-MODA submitted as Internet Drafts in the usual manner

    - Hopefully should not require extensive scrutiny by IETF WGs

    - Bulk of the work done by DNS-MODA before the I-D is submitted

# Who's behind DNS-MODA?

- 3 founding members

  - Autonomica

  - ISC

  - WIDE

- Steering committee until DNS-MODA membership elects exec. committee

  - Chair rotates between founders

  - Currently Kurtis Lindqvist, Autonomica

# Governance

- Broadly comparable model to W3C

- Executive committee elected from membership

- Architecture committee drawn from MODA engineering staff and membership

  - Oversee technical work

  - Determine priorities, review progress

  - Liaise with external bodies

- Temporary Advisory Panel of invited DNS experts

# Executive Committee

- Elected by the membership

- Determines policy, sets budget & fee structure

- Oversees work of Architecture Board

  - Arbitrates if consensus can't be reached

- Reports to membership:

  - Activities, financials, etc.

# Architecture Board

- Critical control of DNS-MODA's activities

  - Determine priorities, allocate resources, monitor progress, set & review project plans, external liaison

- Operates by consensus

- Drawn from three sources:

  - Permanent members

  - Representatives elected by DNS-MODA membership

  - Senior members of DNS-MODA's engineering team

# Advisory Panel

- Chaired by Paul Mockapetris

  - Other members: Rob Austein, Stuart Cheshire, Johan Ihren, Daniel Karrenberg, Akira Kato, Cricket Liu, Jun Murai, Paul Vixie

- Might co-opt 2-3 more

  - Possibly from initial DNS-MODA members

  - Other well respected DNS experts

- Expected to exist for approx. 6 months

  - Will be superseded by formal Architecture Board

# Proposed Fee Structure

- Tiered fee structure on a voluntary basis shamelessly stolen from CENTR model:

    - $1000

    - $5000

    - $10000 - Minimum level for commercial organisations

    - $25000 - Guaranteed place on Architecture Board

    - $50000 - Guaranteed place on Architecture Board

# What will DNS-MODA do?

- Probable work areas

  - DNSSEC deployment & migration

  - Location services for ad-hoc networks

  - BCPs on server placement & configuration

  - APIs for DNSSEC & IDN resolvers

  - IPv6 DNS deployment & migration

  - Name server management & provisioning protocols

  - Conformance testing

# How DNS-MODA Will Operate

- Initially function as a "virtual" organisation

  - No offices until there's a critical mass of members and staff

    - Keep outlays low

    - Infrastructure provided by founding members

- Conference calls & mailing lists

- Physical meetings aligned with obvious network meetings and conferences: RIPE, APRICOT, IETF, etc.

# Getting DNS-MODA Started

- Initial plans

- Bootstrapping & outreach efforts

- Legal considerations

- Membership recruitment

- Identifying potential engineering staff

# Immediate Plans

- Budget for first year - $800K

- Employ 6 staff:

  - 3-4 FTE engineers, 1 full-time exec. director, 1 outreach co-ordinator & 1 admin person (both part-time)

  - Initial infrastructure support from founders

- Growth will be self-funding and organic

  - More staff as needed and membership grows

  - More work items under way

# Bootstrapping

- Outreach

  - Approaching potential members

  - Educating & informing the community

- Output from Advisory Panel

  - Overviews of problem spaces

  - Proposed Work Plan

- Initial Deliverables

  - Proof of concept of DNS-MODA model

# Initial Deliverables

- Secondment of staff from members

  - Work part-time (at first) on initial deliverables

  - Disentanglement from other commitments

  - Produce MODA's first concrete results

- Funded to produce DNS lecture material for the School of the Internet

- Discussions in progress for a starter project on conformance testing

# Short-term Plans

- Jim Reid as employee #1

  - Outreach, recruitment, initial documents

    - Business plan, membership justifications

- Hire full-time engineering staff

  - Candidates already lined up

- Produce first deliverables in 3-6 months

  - Probably BCPs and overviews of problem spaces

# Potential Members

- Obvious choices:

  - TLD registries, large ISPs, RIRs, registrars, telcos

  - Hardware manufacturers

  - DNS Software developers

  - Governments & regulators

- Membership organisations:

  - ETSI, CENTR, 3G Forum, GSM Association

- Academic/research institutions

# Proposed Work Plan

- To be produced by Advisory Panel

  - Outline specific topics for DNS-MODA to explore

  - Work plan ultimately determined by members

- Earliest DNS-MODA members will be best placed to influence MODA's initial directions

  - Might be from unexpected sources

    - Mobile telco, consumer electronics sectors

# Outreach Activities

- Presentations at important conferences & networking meetings: APRICOT, IETF, RIPE, etc

- Web site

- Direct contact with potential members:

  - Manufacturers, telcos, DNS software companies, ISPs, registries, RIRs, etc

# CENTR GA

- Stockholm, June 2004

- Explained DNS-MODA's aims & rationale

- Discussion of funding model & governance issues

- Good feedback and supportive responses

  - Memberships yet to materialise but expected soon

  - Usual due diligence issues

# IETF60

- Introductory meeting at San Diego, July 2004

- Amazing response

  - Standing-room only

  - Expected ~20 attendees, got 70+

- Strong feedback on proposed fee structure

- Some concern about fragmenting IETF standards

  - Misunderstandings cleared up

# ETSI ENUM Plugtest

- European Telecommunication Standards Institute

- ENUM Interoperability Event scheduled for May/June 2005

  - Open event, not just for Europeans

- Co-ordinated by Jim Reid

  - Develop relationship between ETSI & DNS-MODA

  - Outreach to ETSI membership

- Joint publication of results & test cases

# Web Site

- **`www.dns-moda.org`**

- Fairly crude:

  - Reluctant to spend precious time and resources to develop a slick web site

- Copies of DNS-MODA documents & presentations:

  - Business plan, charter, overview, FAQ, basic marketing material & membership justification

  - Usual contact information

# Legal Considerations

- Some potential members require a clear legal framework for membership

    - Membership contract, voting rights, etc.

    - Safeguards for Intellectual Property Rights

    - Licensing and patent issues

- Lawyer engaged to work on IPR & governance documents

    - Closely based on W3C equivalents

    - Drafts being reviewed and developed with potential members

# Membership Recruitment

- Unexpected delays

  - Legal & contractual basis of membership

  - Catch-22 on DNS-MODA Work Plan

    - Wide range of members needed to vote on the Work Plan, but members need the Work Plan to justify the decision to join

- Should not have been unexpected in hindsight...

# Membership Summit

- Plan to get 10-20 potential members together for a one-day summit

- Show mutual commitment to DNS-MODA:

  - "We'll join if they join"

- Identify initial work items that will provide the motivation for joining:

  - "We'll join if there's enough interest amongst the others to work on X..."

# External Projects

- DNS-MODA may undertake external projects

  - DNSSEC related activity sponsored by DHS

  - IPv6 initiatives for consumer electronics industry

- Participation determined by membership

  - Project goals compatible with DNS-MODA aims

  - No conflict with existing DNS-MODA work

# Alternatives to DNS-MODA

- Do nothing

  - Status quo is becoming untenable

- Wait for IETF reform/restructuring to complete

  - DNS-MODA like organisation probably still needed

- If not DNS-MODA, something else will fill the void

  - May not be "IETF compatible"

  - Could have narrow focus and/or proprietary interest

# QUESTIONS??