IANA
Now and in the Future
Nov ‘05

David Conrad
Vancouver ICANN Meeting
11/30/05
Overview

• Introduction
 • First Impressions
 • Major Issues
 • My Plans for the IANA
 • How You Can Help
 • Summary
Introduction

• IANA: “We’re from IANA, we’re here to help”
  ◦ Bringing you Names, Numbers, and other Internet resources since 1972(ish)

• New staff in the IANA
  ◦ David Conrad (IANA GM), Kim Davies (Names Liaison), Sarah Trehern (Project Specialist)

• Not new staff in the IANA
  ◦ Barbara Roseman (IANA Operations Manager), Michelle Cotton (Project Specialist), Naela Sarras (Project Specialist), Pearl Liang (Project Specialist)
Who Am I?

- I’ve been mucking about in the Internet since 1983...
  - Team lead for one of the first commercial TCP/IP Implementations for the IBM PC
    - Joint IBM/University of Maryland project
  - Worked on the University of Hawaii/NASA/NSF PACCOM project
    - Brought first Internet connectivity to AU, HK, JP, KR, NZ
  - Employee #7 at Internet Initiative Japan, Inc.
    - First commercial ISP in Japan
  - Founder and first Director General of APNIC
  - Executive Director of Internet Software Consortium
    - Led the BINDv9 development effort
  - Founder and CTO of Nominum, Inc.
    - High performance name and addressing technologies
  - Been author/co-author on several name/address RFCs & IDs

Proviso: "I’m new here"
First Impressions

- Staff very dedicated and hard working
- Operations are relatively smooth
  - If less automated than desired
- Infrastructure lacking
  - Albeit usually functional
- Much to clean up
  - Request backlogs
  - Relationships
  - Misunderstandings about policies and processes
IANA Staff

- Why so many people? More to do than you might think.
  - Almost everything IANA does is technically trivial, but...
  - Conforming to policies and contractual obligations is often hard
    - Almost all non-technical/or and externally constrained

Playing catch up
- “Mistakes were made”
Major Issues

• Lack of consistent management focus and prioritization
• Understaffing
• IT infrastructure lacking
• First no ticketing system, then multiple ticket systems
• Multiple databases
• Ridiculously complicated processes that have evolved
  ♦ Mix of contractual obligations and historical accretions
  ♦ Little documentation about internal processes
  ♦ Many exceptions to standard processes
    ♦ Most requests are unique in one way or another
• Large backlog
• Lack of automation
• Difficulty communicating with our customers
• Little consistently collected data
• No formally tracked quality metrics
What I Want to Do

- “Tell ya what Jon, worst case, I’ll take care of [IANA] for you... <both laugh>”
  
  Private conversation
  Washington, D.C., Dec ‘97

- **Restore trust in the IANA**
  - Requests handled promptly and efficiently
  - Asymptotically approaching zero number of mistakes
  - Honesty, openness and transparency (as much as is possible)

Make it better
My Vision for IANA

- IANA is a service organization. Really. No, Really.
- Our customers are (in alphabetic order, not priority):
  - IETF/IESG/IAB
  - Regional Internet Registries
  - TLD Registries (existing and new)
  - International treaty organizations
- Goals
  - Responsiveness and communication
  - Accuracy and correctness
  - No single point of failure
  - Excellence in service
  - “Always make new mistakes”
    - Never repeat old ones
The Plan

- Figure out where the problems are
  - E.g., “Customer Satisfaction Survey”
  - Figure out the goal
    - E.g., 95% percent customer satisfaction
  - Question (pick one)
    - E.g., What are the delays that make people unhappy?”
  - Metric (best characterization of the problem)
    - Processing and queueing delays in seconds
- Analyze the data with the metrics
- Fix the problem (whatever it takes)
- Recollect and reanalyze metrics to see if the problem really is fixed
Concretely
Major Issues Revisited

- Lack of consistent management focus and prioritization
- Understaffing (getting fixed now)
- IT infrastructure lacking (out of IANA control)
- First no ticketing system, then multiple ticket systems (will be fixed, phase I)
- Multiple databases (will be fixed, phase II)
- Byzantine processes that have evolved
  - Mix of contractual obligations and historical accretions (out of IANA control)
  - Little documentation about internal processes (will be fixed, phase I)
  - Many exceptions to standard processes (out of IANA control)
    - Most requests are unique in one way or another
- Large backlog (getting fixed now)
- Lack of automation (will be fixed, phase II)
- Difficulty communicating with our customers (suggestions welcome)
- Little consistently collected data (will be fixed, phase I)
- No formally tracked quality metrics (will be fixed, phase I)
How You Can Help

• If you run into a problem, let me know
   mailto://iana@iana.org (for now)
    ▪ Soon: mailto://issues@iana.org (ticketed)
   mailto://david.conrad@icann.org
   +1-310-301-3869 (my direct line)

• Help with IANA services in beta testing
   Provide feedback

Critique existing IANA services
Summary

- Most IANA processes improving
- More automation necessary
  - Request validation and processing
  - Data collection and presentation
- Mistakes were made (understaffing, wrong staffing, de-emphasis/de-prioritization) but ICANN has taken extensive steps to never repeat them
  - Much higher priority and emphasis, new staff, increased budget, new focus on responsiveness, efficiency, and automation
Questions?