

# IANA

## Now and in the Future

Nov '05

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David Conrad  
Vancouver ICANN Meeting  
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# 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)

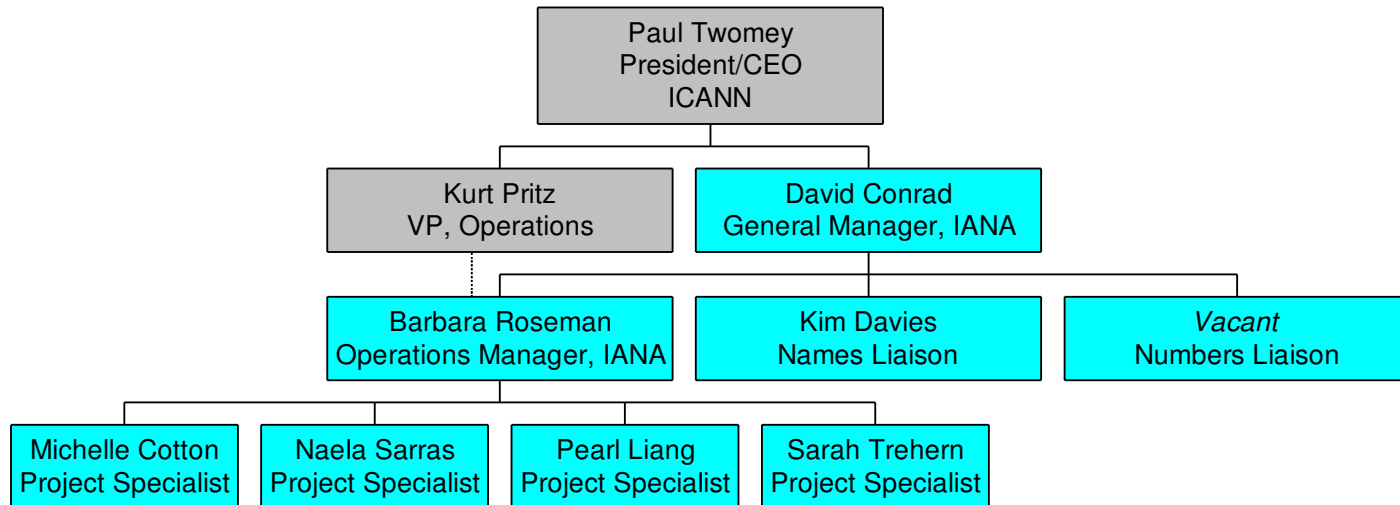
# Who Am I?

- 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

# 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

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- “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** IANA Now and in the Future, Vancouver ICANN, Nov '05



# My Vision for IANA

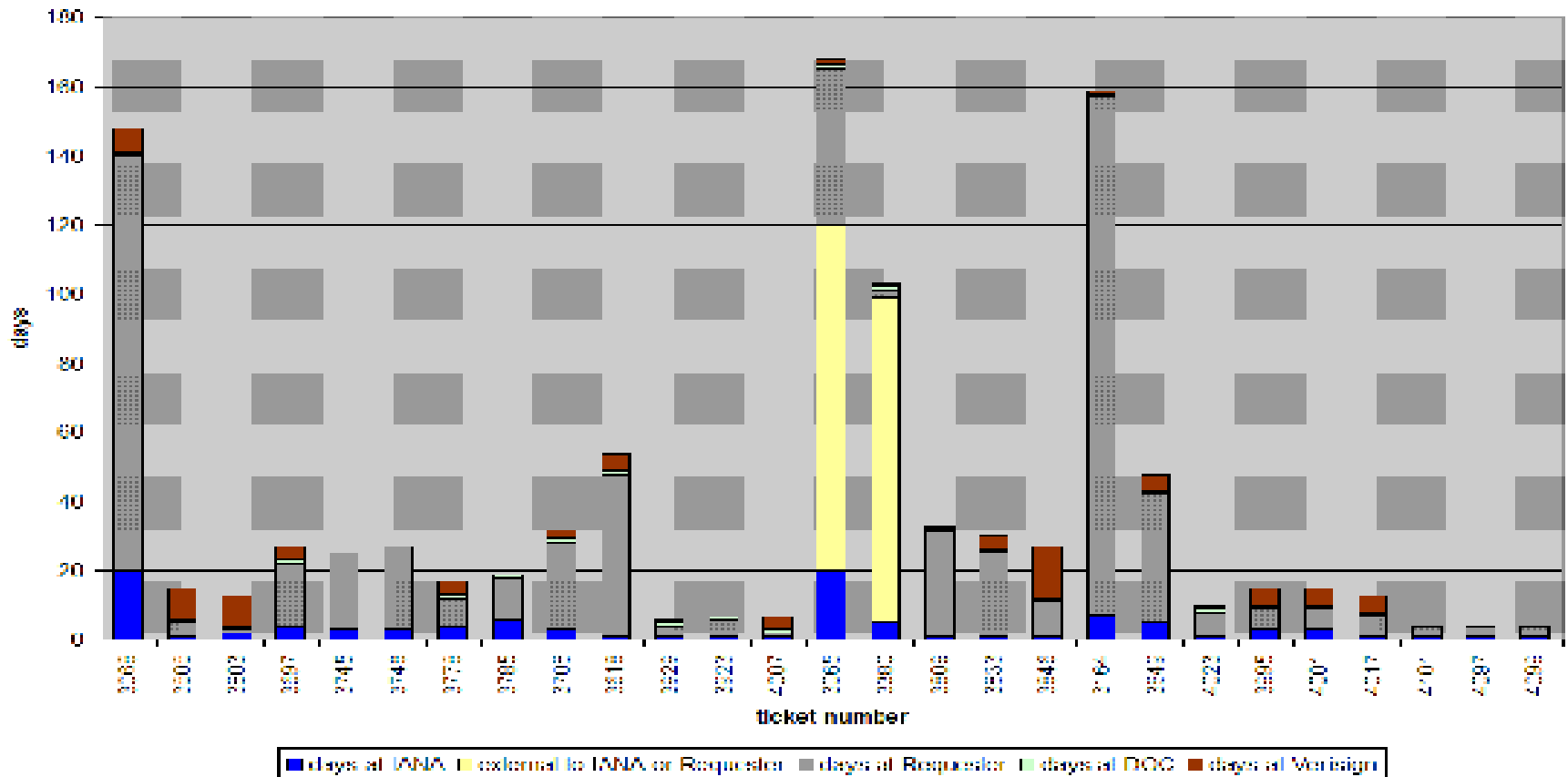
- IANA is a service organization. Really. No, Really.
- Our customers are (in alphabetic order, not priority):
  - ◆ IETF/IESG/IAB
  - ◆ Regional Internet Registries
  - ◆ TLD Registries (existing and new)
  - ◆ International treaty organizations
- Goals
  - ◆ Responsiveness and communication
  - ◆ Accuracy 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 queuing 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

Root Management Change Requests October 2005



# 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

# 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?

