## **Bazaar Governance**

- Introduction: Thesis
  - Embrace FLOSS in every sense. Move away from the "cathedral" mindset that led us to the institutions we have, and adopt a more "bazaar" society.
- Conclusion: Inspiration [Purpose]
  - FLOSS philosophies and methodologies developed autonomously around modern operating systems and revolutionary communication networks, that is, systems that: use abstraction and collaboration to solve problems, share resources for the benefit of all, and facilitate sustainability and transparency.
- 1. Introduce premises. (FLOSS and Bazaar Development)
  - FLOSS
    - Past: Background
      - Early Computers
        - Operating Systems
          - o 1969: UNIX
            - Popular
              - Abstraction
                - C > Assembly
              - Derivatives
                - o 1978: BSD
                - o 1987: MINIX
            - Proprietary (AT&T)
      - Free Software Movement
        - 1983: GNU is Not UNIX
        - 1985: Free Software Foundation
          - 4 Principles
          - Copyleft
        - 1989: GNU General Public License
        - 1992: Linux
          - o MINIX
      - Open Source Movement
        - Naming
          - Ambiguity (Free)
            - Gratis & Liberty
              - Libre
          - Stigma
            - Commercial Adoption
        - Business Models
          - Traditional

- Alternative
  - Red Hat
    - RHEL & CentOS
- 1998: Open Source Initiative
  - o Development Philosophy
    - The Cathedral and the Bazaar
  - Free Software Comparison
- o Present: Status
  - Influence (Licensing Effects)
    - Apache, BSD, Mozilla
  - Communities (Philosophy Adoption)
    - Debian
  - Advantages
    - Quality
      - Peer Editors
        - Linus's Law
        - Diversity
    - Security
      - Attackers & Defenders
        - US Department of Defense
    - Freedom
      - Unrestricted
        - Project Forks
  - Growth
    - Reach
      - Algorithms > Software
      - Protocols
        - Cryptography
          - Secure
          - SSL/TLS
            - o AES & RSA
        - Communication
          - Collaborative
          - TCP
- 2. Associate premises with results. (Widespread Collaboration and Innovation)
  - Internet
    - Past: Background
      - 1969: ARPANET
        - UNIX
      - 1972: International Network Working Group
        - Upstream Updates

- End-to-End Reliability
  - Decentralization
- 1974: TCP/IP
  - Popular
    - Abstraction
      - UNIX
    - Collaborative (Joined "Cathedrals")
      - X.25 (Europe)
- 1985: NSFNET
  - Expansion
    - CSNET (NSF), NSN (NASA), ESNet (DOE)
  - Coordination (Governance)
- 1986: Internet Engineering Task Force
  - Requests For Comments
    - Standards
      - "Open Source Protocols"
        - Voluntary Adoption
- 1991: World Wide Web
  - Multimedia
    - o GUI
    - HyperText
      - 1994: World Wide Web Consortium
- 1995: Commercial Internet
  - Ultimate Bazaar
- 3. Apply premises to subject. (Societal Governance)
  - Technological Integration
    - Present: Status
      - Growth
        - Statistics
    - Future: Direction
      - Technological Omnipresence
        - Web 2.0
        - Cloud
        - Internet of Things
      - Reality > WWW
        - Social Networks
          - MySpace
            - WWW-centric
          - Facebook
            - People-centric
          - Arab Spring

- Public Infrastructure (Government)
  - Present: Status
    - o Centralized, Cathedral, Closed (Lack of Quality)
      - Corporate lobbying
  - Applications of FLOSS Advantages (Why use FLOSS in government?)
    - Quality
      - Reliability
        - Mass Deployment
      - Sustainability
        - Perpetual Innovation
    - Security
      - Privacy
        - Sensitive Records
    - Freedom
      - Independence
        - Transparency
        - "Of the people, by the people, for the people"
  - Beyond Software (Why adopt FLOSS philosophies?)
    - Quality
      - Debuggable Government
        - Reliability
    - Security
      - Decentralization
        - Robust
          - o Terrorism Resistant
      - Transparency
        - Privacy & Honesty
          - Corruption Resistant
    - Freedom
      - Decentralization
        - Sustainability & Independence
          - Collaboration & Cooperation