Internet Decentralization – Next Steps

2024-07-24
Lixia Zhang & Dirk Kutscher
Panelists

- Geoff Huston (APNIC)
- Christian Huitema (Private Octopus)
- Dirk Kutscher (HKUST)
- Arnaud Taddei (Broadcom)
- Lixia Zhang (UCLA)
Background

- Previous DINRG meetings all had lively open mic discussions
- Spontaneous conversations
  - Interesting and insightful
  - Tend to head to different issues in diverse directions
- Today: continue/extend the previous discussions by
  - Gathering a small group of panelists and start the discussion with a list of questions collected from the previous meetings
  - Open mic for all audience
- Goal: identify an ordered list of issues for DINRG to tackle in coming years
Questions and Topics

1. "Centralization" – state of system
   ○ do we have a good enough understanding of the factors (economic, technical, regulatory)?
   ○ what has changed recently?
   ○ what should we study more?

2. Responding to centralization
   ○ how should societies and market react?
   ○ which groups & stake-holders should get engaged?
   ○ whose interests do we want to push?
   ○ what could go wrong (risks in countering centralization)

3. Future work for DINRG
   ○ what should DINRG focus on?
   ○ what are most fruitful topics and potential projects?
   ○ what could/should be the expected outcome from the DINRG efforts?
DINRG agenda since 2021
Workshop
IETF 114:
  • Report on Workshop on Centralization in the Internet (2021-06)
  • Open Discussion on Next Steps

IETF 115:
  • Centralization Taxonomy
  • Protocol and Engineering Effects of Consolidation (observation and analysis)
  • Web Centralization (problem identification, solution development)
  • Power of Attorney (PoA) based authorization (solution development)
  • Internet-Wide Realm Crossover (solution development)
IETF 116:
- Avoiding Internet Centralization
- Effects of Internet Consolidation
- Discussion of Issues (E2E etc.)
- Taxonomy Discussion

IETF 117:
- Let The Platforms Burn: Bringing Back the Good Fire of the Old Internet (Cory Doctorow)
- Ecosystem Evolution and Digital Infrastructure Policy Challenges: Insights & Reflections from an Economics Perspective (econ, policy)
- Minimal Global Broadcast (MGB) (solution development from link layer up)
IETF 118:
- The Case of AS59645: Making it ping and doing stupid things (measurements)
- The Cloud Strikes Back: Investigating the Decentralization of IPFS (measurements)
- Local-First Software (solution development)
- A Taxonomy of Internet Consolidation

IETF 119:
- Cyberspace Regulation Case Study (policy)
- Delivering Social and Municipal Services (solution development)
- Workspace: A Local-First Application Prototype (solution development)
- RFC 9518 discussion (“Centralization, Decentralization, and Internet Standards”)