Privacy considerations for IP broadcast and multicast protocol designers

draft-winfaa-intarea-broadcast-consider-02

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Origin of this work

• Experiment on a campus network with 5000+ users
  – Recording of multicast and broadcast messages
  – Anonymization of PII-relevant data

• Same experiment was conducted on selected SSIDs during the Yokohama meeting during a 24h period
Privacy Problems

• Host naming (hostnames often contain PII)

• Usage of persistent IDs

• Protocol behavior
  – E.g. frequent broadcasts

• Potential data correlation

• No configurability (as part of the app)
Problem: proprietary protocols

• IETF-specified protocols receive attention
  – WG and directorate reviews
  – Privacy documents
    • draft-huitema-dnssd-privacy-00
    • RFC 7819
    • ...
  – Operational support
    • E.g DHCP snooping
    • ...

• Proprietary protocols receive none of this
Protocol design guidance...

• ... to avoid privacy problems observed in operational networks
  – E.g. reveal identity and social graph of users
• ... to avoid impact on ongoing work in the IETF and elsewhere
  – E.g. IP address or MAC address randomization
• ... To help build better protocols
Next steps

WG adoption call

- **no**
  - Stop progressing the draft

- **yes**
  - Progress towards RFC