intarea working group
IETF94
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Agenda

• Identify note taker and jabber scribe
  – Please volunteer
• WG & Document Status
• Agenda Bashing
Document Status

• draft-ietf-intarea-gre-ipv6-02
  – Published as RFC7676
• draft-ietf-intarea-tunnels-01
  – Updated in July, discussions ongoing on list
• Two new drafts adopted since the Prague meeting
  – draft-ietf-intarea-hostname-practice-00
  – draft-ietf-intarea-adhoc-wireless-com-00
Agenda

- Tunnels draft update, Mark Townsley, 10 minutes
  - draft-ietf-intarea-tunnels-01
- Multicast Update from IEEE, Dan Harkins, 15 minutes
- GRE Tunnel Fragmentation, Fred Templin, 5 minutes
  - draft-templin-intarea-grefrag
- IP over intentionally partially partitioned links, Erik Nordmark, 5 minutes
  - draft-nordmark-intarea-ippl
- Yang data model for GRE, Vero Zheng, 5 minutes
  - draft-zheng-intarea-gre-yang-00
- YANG data model for Tunnels, Ing-Wher Chen, 5+5 minutes
  - draft-liu-intarea-ippv4-tunnel-yang-00
  - draft-liu-intarea-gre-tunnel-yang-00
- IEEE 802.15.1lc (Logical Link Control), Charlie Perkins, 5 minutes
Announcements

(Please review these drafts)
Considerations for broad- and multicast protocol designers

• You constantly broadcast “yourself”
  – E.g. Dropbox, Spotify, BitTorrent Sync...

• Rich pool of data to combine
  – Persistent IDs, Hostnames, links between people, message frequency...

• Hard to encrypt, hide or protect in any way

• Easy to collect – passively listening

• https://tools.ietf.org/html/draft-winfaa-broadcast-consider-01
Dynamic GRE Tunnel Mechanism

- **Motivation:** For large scale usages, GRE tunnels should be auto-configurable and dynamically manageable
- **Discovers AR (Tunnel Concentrator) by DHCP**
  - To set up a GRE tunnel, a WTP sends a DHCP Request to DHCP server to obtain the GRE relevant configuration parameters
  - DHCP Server replies the DHCP Reply to WTP with AR address in a DHCP GRE Discovery (GD) Option (below)

  ![Figure 5: DHCPv4 GRE Discovery Option](image)

  ![Figure 6: DHCPv4 GRE Information Option](image)

  ![Figure 7: DHCPv6 GRE Discovery Option](image)

  ![Figure 8: DHCPv6 GRE Information Option](image)

- **The GRE tunnel is set up after WTP receives DHCP Reply with DHCP GD Option**
  - AR learns WTP via the received GRE encapsulated packet from WTP