PLUS: Path Layer UDP Substrate

Birds of a Feather (BoF) Meeting
IETF-96
Berlin
July 2016
PLUS BoF

Chairs’ Introduction
Dramatis Personae

BoF Meeting Chairs: Aaron Falk
                         Natasha Rooney
Proponents:              Ted Hardie
                         Mirja Kuehlewind
                         Brian Trammell
Responsible Area Director: Spencer Dawkins
Agenda

Introduction: Chairs (10 mins)

Specific Problem Areas Presentations (30 min):
  Enterprise operator viewpoint: Joe Hildebrand
  Mobile operator viewpoint: Natasha Rooney
  Architectural viewpoint: Ted Hardie

Technical Proposal & Relevant Discussion: Brian (30 mins)

Charter review: Chairs (15 mins)

Charter Discussion: BoF attendees (60 mins)
BoF Goals

- This is a “working group forming” BoF
- Is the need understood?
- Is the proposal understood?
- Is there a community that is energized to do the work?
- Are there any critical conflicts or show-stoppers?
Not Today’s Focus

- Implementation details
- Protocol design
- SPUD prototype
- Other ratholes (ITOOTC)†

†: “In the opinion of the chairs”
Consensus Questions

Is the problem statement clear, well-scoped, solvable, & useful to solve? (yes/no/discuss)

Who is willing to review documents or comment to the list? (show of hands)

Who is willing to edit documents? (show of hands)

Should the IETF form a WG with the charter discussed today? (yes/no/discuss)
Charter - Scope Key Points

- Shim-layer protocol above UDP implementable in user-space
- Supports ubiquitous deployment of encrypted higher layer protocols
- Transport-independent exposure of TCP-like flow semantics to devices on path
- Permits other explicit signalling to be exposed from apps/TSV to path
- Enables devices on path to signal to sender, under sender control
Charter - Deliverables

● Experimental protocol specification
● Must consider vulnerabilities
● Initial registry of types of information that can be exposed using PLUS
● Implementation
● Running code with WebRTC data channel, QUIC
Charter - Deliverables

- Experimental protocol specification
- Must consider vulnerabilities
- Initial registry of types of information that can be exposed using PLUS
- Implementation
- Running code with WebRTC data channel, QUIC, TCP, SCTP, TAPS, DCCP, my cat
Backup
Every BoF get driven off the rails when someone says...

IPv6
Every BoF get driven off the rails when someone says...

IPv6

MULTICAST