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)[†]

^{†: &}quot;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

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- 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

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IPv6

MULTICAST