

# TSVWG

## IETF-106 (Singapore)

18<sup>th</sup> & 21<sup>st</sup> November 2019

Gorry Fairhurst  
Wes Eddy (remote)  
David Black  
WG chairs

# Note Well

This is a reminder of IETF policies in effect on various topics such as patents or code of conduct. It is only meant to point you in the right direction. Exceptions may apply. The IETF's patent policy and the definition of an IETF "contribution" and "participation" are set forth in BCP 79; please read it carefully.

As a reminder:

By participating in the IETF, you agree to follow IETF processes and policies.

If you are aware that any IETF contribution is covered by patents or patent applications that are owned or controlled by you or your sponsor, you must disclose that fact, or not participate in the discussion.

As a participant in or attendee to any IETF activity you acknowledge that written, audio, video, and photographic records of meetings may be made public.

Personal information that you provide to IETF will be handled in accordance with the IETF Privacy Statement.

As a participant or attendee, you agree to work respectfully with other participants; please contact the ombudsteam (<https://www.ietf.org/contact/ombudsteam/>) if you have questions or concerns about this.

Definitive information is in the documents listed below and other IETF BCPs. For advice, please talk to WG chairs or ADs:

BCP 9 (Internet Standards Process)

BCP 25 (Working Group processes)

BCP 25 (Anti-Harassment Procedures)

BCP 54 (Code of Conduct)

BCP 78 (Copyright)

BCP 79 (Patents, Participation)

<https://www.ietf.org/privacy-policy/> (Privacy Policy)



**I E T F**

# HELP TSVWG!

- Need a Note Taker
- Need a scribe for Jabber session
- Need reviewers for WG drafts
  
- Future TSVWG Authors:  
PLEASE add “-tsvwg-” to any ID submitted

# Document Review Request

- Document quality relies on reviews, please review documents in your working group and at least one other document from another working group.
- If you'd like documents that you care about reviewed, please put the effort in to review other documents.

# TSVWG Accomplishments and Status

- No RFCs published since IETF 105
- 3 Internet-Drafts (IDs) in AURH-48:
  - FEC Framework Extension
  - FEC Sliding Window Random Linear Code
  - TinyMT32 Pseudo Random Number Generator
    - Authors final review (48 hours) in progress for above 3
- 1 Internet-Draft (ID) in RFC Editor Queue:
  - Diffserv and Web RTC QoS
    - RFC Ed. State: REF (no longer MISSREF !!)
    - Part of the (in)famous WebRTC cluster 238

# TSVWG Accomplishments and Status

- No IDs at IESG
- 3 IDs with WG chairs & authors after WGLC
  - ECN Encapsulation for Lower Layer Protocols
  - ECN for Tunnels that use Shim Headers
    - New fragmentation interaction text needed
  - Transport Header Confidentiality Impacts
    - Revised draft needed for another WGLC

# TSVWG Accomplishments and Status

- No IDs in WG Last Call
- 2 IDs likely to go to WG Last Call soon
  - SCTP NAT Support
  - Datagram PL Path MTU Discovery
- Next steps for L4S drafts will be discussed on Thursday

# TSVWG Accomplishments and Status

- Additional Working Group IDs (7)
  - 1) SCTP (RFC 4960bis)
  - 2) L4S Architecture
  - 3) L4S Identifier (ECN)
  - 4) L4S AQM (dualq-coupled)
  - 5) Non-Queue-Building (NQB) PHB
  - 6) UDP Options
  - 7) Tunnel Congestion Feedback



# TSVWG: Related Drafts

- Transport-related:
  - IPv6 Path MTU Discovery
    - draft-ietf-6man-mtu-option
  - Lossless Path MTU Discovery
    - draft-bonica-intarea-lossless-pmtud
  - L4S and Diffserv
    - draft-briscoe-tsvwg-l4s-diffserv
  - LOOPS (Localized Optimization of Path Segments)
    - draft-li-tsvwg-loops-problem-opportunities
    - Side meeting Tuesday 8:30a in Orchard on overall scope and encapsulation details

# TSVWG: Related Drafts (2)

- Transport-related (continued):
  - ECN and NSH (uses Tunnel Congestion Feedback)
    - draft-ietf-sfc-nsh-ecn-support
  - Low Latency DOCSIS (Submitted to ISE)
    - draft-briscoe-docsis-q-protection
  - SCE-related queuing drafts
    - draft-morton-cheap-nasty-queuing
    - draft-morton-lightweight-fair-queuing
  - RDMA Congestion Control
    - Exploratory side meeting Tuesday 8:30am in VIP A
    - draft-zhh-tsvwg-open-architecture
    - draft-zhuang-tsvwg-ai-ecn-for-dcn
    - draft-even-iccr-g-dc-fast-congestion
      - This draft will also be introduced in Monday ICCRG meeting

# TSVWG: Related Drafts (3)

- Exposed Loss Bits
  - draft-ferrieuxhamchaoui-tsvwg-lossbits
- Internet-related (intarea WG):
  - Tunnel MTU Considerations
    - draft-ietf-intarea-tunnels
  - Fragmentation Fragility
    - draft-ietf-intarea-frag-fragile
  - SOCKS Protocol Version 6
    - draft-olteanu-intarea-socks-6
- SCTP
  - Multipath
    - draft-tuexen-tsvwg-sctp-multipath
  - Retransmission
    - draft-jovev-tsvwg-sctp-rto

# TSVWG: Related 3GPP contributions

- SA2 contribution on L4S
  - [https://www.3gpp.org/ftp/tsg\\_sa/WG2\\_Arch/TSGS2\\_136\\_Reno/Docs/S2-1911250.zip](https://www.3gpp.org/ftp/tsg_sa/WG2_Arch/TSGS2_136_Reno/Docs/S2-1911250.zip)
- RAN2 contribution
  - [https://www.3gpp.org/ftp/TSG\\_RAN/WG2\\_RL2/TSGR2\\_107bis/Docs/R2-1913888.zip](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_107bis/Docs/R2-1913888.zip)

# TSVWG Agenda

## **Chairs Agenda Bashing**

NOTE WELL

## **Thursday's Agenda**

Document Accomplishments and Status

Milestones Review

Drafts

## **Friday's Agenda**

More Drafts

# WG Milestones Review (1)

- **Feb 2019**      **Submit 'Guidelines for Adding Congestion Notification to Protocols that Encapsulate IP' as a BCP RFC**
- **Feb 2019**      **Submit 'Propagating Explicit Congestion Notification Across IP Tunnel Headers Separated by a Shim as a Proposed Standard RFC**  
**(2<sup>nd</sup> WGLC completed, drafts delayed, change both milestones to Jan 2020)**
- **Jun 2019**      **Submit "Low Latency, Low Loss, Scalable Throughput (L4S) Internet Service: Architecture" as an Informational RFC**
- **Jun 2019**      **Submit "DualQ Coupled AQM for Low Latency, Low Loss and Scalable Throughput" as an Experimental RFC**
- **Jun 2019**      **Submit "Identifying Modified Explicit Congestion Notification (ECN) Semantics for Ultra-Low Queuing Delay" as an Experimental RFC**  
**(L4S drafts - next step discussions on Thursday)**

# WG Milestones Review (2)

- **Jul 2019**      **Submit 'SCTP NAT Support' to IESG as a Proposed Standard RFC**  
(Change to Feb 2020)
- **Aug 2019**      **Submit 'Packetization Layer Path MTU Discovery for Datagram Transports' as a Proposed Standard RFC**
- **Sep 2019**      **Submit “The Impact of Transport Header Confidentiality on Network Operation and Evolution of the Internet” as an Informational RFC**  
(Allow another meeting cycle, change to Apr 2020)
- **Dec 2019**      **Submit “SCTP” (rfc4960bis) as a Proposed Standard RFC**  
(Won't be that soon, Sep 2020 seems realistic)
- **Apr 2020**      **Submit “Tunnel Congestion Feedback” as an Informational RFC**
- **Jun 2020**      **Submit "Transport Options for UDP" as a Proposed Standard RFC**  
(Deal with above 2 dates at next meeting, also need new date for NQB draft submission, suggest June 2020)

# Agenda for Monday (part 1)

- 1) Document Status, Charter and Accomplishments
  - WG drafts, Related drafts, Milestones
- 2) Agenda Bashing and SOCKS update
- 3) Code Development and Hackathon update
  - TCP Prague, L4S, SCE
  - Datagram PLPMTUD for SCTP
- 4) SCTP Drafts
  - Updated SCTP spec (draft-ietf-tsvwg-rfc4960-bis)
  - SCTP NAT support (draft-ietf-tsvwg-natsupp)
  - Authentication (draft-nagesh-sctp-auth-4895bis)
- 5) Datagram PL Path MTU Discovery
  - draft-ietf-tsvwg-datagram-plpmtud



# Agenda for Monday (part 2)

## 6) New Work

- Diffserv PHB for Non-Queue-Building traffic
  - draft-ietf-tsvwg-nqb
- DCCP Multipath
  - draft-amend-tsvwg-dccp-udp-header-conversion
  - draft-amend-tsvwg-multipath-dccp
  - draft-amend-tsvwg-multipath-framework-mpdccp
- Endpoint Congestion Control Guidelines
  - draft-fairhurst-tsvwg-cc

# Agenda for Thursday (part 1)

## 7.1) UDP options

- draft-ietf-tsvwg-udp-options

## 7.2 & 7.3) L4S (Low Latency Low Loss Scalable)

- Drafts update
  - draft-ietf-tsvwg-l4s-arch
  - draft-ietf-tsvwg-ecn-l4s-id
  - draft-ietf-tsvwg-aqm-dualq-coupled
- Issues Discussion

## 8.1) SCE (Some Congestion Experienced)

- draft-morton-tsvwg-sce
- draft-grimes-tcpm-tcpsce

# Agenda for Thursday (part 2)

## 8.2) QCI and Diffserv

- draft-henry-tsvwg-diffserv-to-qci

## 8.3) Spin and Delay Bits

- draft-cfb-tsvwg-spinbit-new-measurements

## 8.4) Diffserv and Inband Signaling

- draft-han-tsvwg-enhanced-diffserv