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TCPINC

IETF-97

Friday, November 18, 2016

WG Chairs: David Black, Kyle Rose

Agenda

Chair update

- 10 minutes

TCP-ENO: Encryption Negotiation Option

- David Mazières
- 40 minutes

tcpcrypt: Cryptographic protection of TCP Streams

- Andrea Bittau
- 40 minutes

CFRG Questions

- Kyle Rose
- 20 minutes

Open mic

Since Berlin...

New versions of ENO (-06), tcpcrypt (-03), and API (-01) drafts:

- Incorporated feedback from prior reviews
- Clarified language around SYN data and URG/FIN bits
- Altered terminology based on discussions in Berlin session
- Moved tcpcrypt API into shared TCPINC API document

Chairs requested feedback from CFRG on some crypto issues

Milestones

Jan 2017	Submit extended API to IESG as Informational
Dec 2016	Submit unauthenticated key exchange mechanism and extensions to current TCP to IESG for publication as Experimental
Apr 2016 (Done)	Adopted first WG document on extended API draft-ietf-tcpinc-api
Nov 2015 (Done)	Adopt first WG document on unauthenticated key exchange mechanism and extensions to current TCP draft-ietf-tcpinc-tcpcrypt draft-ietf-tcpinc-tcpno draft-ietf-tcpinc-use-tls

TBD...

Finalize tcpcrypt document

- Ready for WGLC?

Finalize TCP-ENO document

- Ready for WGLC?

Work on API document

- Most discussion so far debating socket API vs. abstract API
- Need to decide on approach and then complete the document

Related placeholder draft:

- TCPINC middlebox probing: still looking for co-authors with middlebox experience (“NAT traversal scars”)

Call for Implementors

TCP-ENO and tcpcrypt need independent implementations developed from the specifications in the documents

Doesn't have to be a kernel-level implementation: even one based on modifications to a userspace TCP stack would help demonstrate completeness and usability of protocol spec