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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

tcpencrypt: 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

<table>
<thead>
<tr>
<th>Year</th>
<th>Description</th>
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<tbody>
<tr>
<td>Jan 2017</td>
<td>Submit extended API to IESG as Informational</td>
</tr>
<tr>
<td>Dec 2016</td>
<td>Submit unauthenticated key exchange mechanism and extensions to current TCP</td>
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<tr>
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<td>to IESG for publication as Experimental</td>
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<td>Apr 2016 (Done)</td>
<td>Adopted first WG document on extended API</td>
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<td>draft-ietf-tcpinc-api</td>
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<td>Nov 2015 (Done)</td>
<td>Adopt first WG document on unauthenticated key exchange mechanism and</td>
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<td>draft-ietf-tcpinc-use-tls</td>
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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