SLOW and ERROR: from Oslo to DC

draft-ietf-pilc-slow-02.txt and
draft-ietf-pilc-error-02.txt
Changes made to both drafts:

Two updates to each draft since Oslo:

Version 01 - reflected comments from Oslo
Version 02 - reflected discussions since Oslo

Both titles have changed
Both abstracts have changed

Background now less history, more technology
Lots of editorial cleanup and minor corrections
SLOW: Significant Changes in 01

Recommended limited receiver window

   Goal: Prevent sender probing for non-existent bandwidth
   Problem: “limited to WHAT?”

Added reference to “Right-edge Recovery”

   Inject new data when sender receives duplicate ACKs
   Goal: Trigger Fast Retransmit/Fast Recovery if possible
   Avoid RTO by injecting one or two ACK-clocked segments

   Not standards-track - research community feedback?
SLOW: Significant Changes in 02

Recommend against use of TCP timestamp options
   Constantly-changing header option prevents header compression
   Header compression that compresses SOME options?

Recommend “TCP Buffer Autotuning”
   Significant win for hosts with multiple interfaces (LAN + dialup)
   Still recommending small receive windows for “ever-slow” hosts

Recommend (at most) 100-millisecond MTUs
   200-millisecond delays are human-perceptible (RFC 1144)
   200-millisecond MTUs turn off delayed ACKs
ERROR: Significant Changes in 01

Defer LINK topics to LINK
   Still working out exact contents of each PILC recommendation!

Restrict scope to TCP
   Too many variables for one-size-fits-all UDP recommendation

Remind everyone that errors still hurt TCP performance
   No miracle occurs!

Distinguish clearly between standards-track and non-standards-track recommendations
ERROR: Significant Changes in 02

Complete rewrite: Why TCP windows stay small
Split Explicit Congestion and Corruption Notification material
  Corruption notification topic swamped by congestion notification
Updated to include Appropriate Byte Counting recommendation
  Research/experimentation continues in this area
Added “HTTP and the Dark Side of the Force” section
  The WWW has lots of small objects
  HTTP/1.0: closed TCP connections a lot
  HTTP/1.1: persistent connections intended to be default
  This isn’t happening, for several reasons
  TCPs really won’t know what network characteristics are, as long as connections keep closing
Spencer-the-co-author thinks:

Both documents are scheduled for publication as BCPs after this IETF (per our charter)

At least one more editorial pass is needed for each document (think “03”) before this happens

I’m interested if you have comments

I’m very interested if you see topics that are missing

I’m EXTREMELY interested if you see errors

Your thoughts?