PWE3 Congestion Considerations

draft-ietf-pwe3-congcons-01.pdf

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Recap

PWE3, as a WG, has a long-standing commitment
to deal with the congestion problem

At IETF-84 the authors presented *draft-stein-pwe3-congcons-01*
at both PWE3 and TSVAREA

Note: the pdf version contains essential graphs
that can not be depicted in the txt version

PWE3 decided to accept it as a WG document

draft-ietf-pwe3-congcons-00 was identical to the individual draft

draft-ietf-pwe3-congcons-01 has some changes

Reminder: What this draft says …

We present two distinct cases:

1) *elastic* PWs carrying congestion responsive traffic
   e.g., Ethernet PWs carrying mostly TCP traffic
2) *inelastic* PWs that can not respond to congestion
   e.g., TDM PWs (structure-agnostic or structure-aware)

Analysis shows that:

1) elastic PWs are automatically TCP-friendly
   and do not require any additional mechanisms
2) inelastic PWs are *often* TCP-friendly
   and frequently do not require any additional mechanisms

A TDM PW that contributes unfairly to congestion
needs to be shut down

Changes in version 01

- Graphs for T1, E1, E3, T3 cases
- Conformant area for TDM PWs is shaded in
- New appendix on voice quality for voice channels
  inside TDM PWs with packet loss
  (taken from draft-stein-pwe3-tdm-packetloss)

Open issues

What happens when inelastic PWs compete
with short-lived TCP flows ?
(present argument treats long lived TCP flows)

How much time to wait until shutting down a misbehaving PW ?
(need a smoothing criterion)