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)