Initial ConEx Deployment Examples
draft-briscoe-conex-initial-deploy-00.txt

apologies from Bob Briscoe, BT
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IETF-82 ConEx Nov 2011
draft status

- new individual draft
- draft-briscoe-conex-initial-deploy-00.txt
- intended status: informational
- immediate intent:
  - WG feedback on scenarios
  - finish the two ‘sketchy’ scenarios
  - adopt as WG item?
chartered?

“... the CONEX WG will initially focus on one use case, where the end hosts and the network that contains the destination end host are CONEX-enabled but other networks need not be.

... 

**Goals and Milestones**

*Mar 2011 Submit use case description to IESG as Informational*

...“

We have now two documents:

a) what benefits does ConEx bring?
   • [ietf-conex-concepts-uses](https://example.com/ietf-conex-concepts-uses) covers this

b) deployment arrangements of systems using ConEx
   • [briscoe-conex-initial-deploy](https://example.com/briscoe-conex-initial-deploy) targets this
pre-requisites

reading order

1. draft-ietf-conex-concepts-uses
2. draft-ietf-conex-abstract-mech

draft-briscoe-conex-initial-deploy
A. recap (1p) refers to abstract-mech for details
   • incremental deployment features of ConEx
   • ConEx functional components
B. first movers: senders
C. network arrangements
   1. single receiving network
   2. mobile network
      → [draft-kutscher-conex-mobile]
   3. internal to a multi-tenant data centre
      (write-up to be finished)
ConEx deployment features recap

- sender modification essential
  - change each transport protocol incrementally
- no change required to queues & forwarding
  - ECN not required in the network (but better if ECN)
- ECN not required at the receiver for conex
  - Sender should always attempt to negotiate ECN with the receiver
- packets indicate whether they support ConEx
ConEx recap (I)
basic signals and functional units

transport sender

SACK
ECE

transport receiver

ACKS

congested network element

DATA
ECN
loss

Re-Echo-ECN
Re-Echo-Loss
ConEx recap (II)
basic signals and functional units
some sources deploy ConEx first

• a speculative strategy that triggers ConEx deployment

• scavenging senders benefit the network, but the network can’t measure the benefit
  • so scavenger tells the network the benefit (using ConEx)
  • it knows the network monitors anything it can
  • or the network operator is interested in a trial
deployment incentives

• sources
  • policed less than Non-ConEx traffic when sending large volumes if scavenging effectively

• network
  • more satisfied customers – relaxed policing
  • simpler traffic management
  • simpler network design
status & plans

• review from Phil Eardley
  • ‘better’ ASCII art
  • wants similar scenario but start solely with trusted sources
  • wants deployment incentives explained first

• plan – finish the document
  • re-organise to describe incentives up front
  • summarise mobile scenario [kutscher-conex-mobile]
  • describe multi-tenant data centre scenario (simple)
  • complete empty sections (e.g. tail pieces)

working group input

• more reviews please
• WG feedback on scenarios?
• WG item?
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Q&A