Initial ConEx Deployment Examples

draft-briscoe-conex-initial-deploy-00.txt

apologies from Bob Briscoe, BT

presented by Andrea Soppera, BT

IETF-82 ConEx Nov 2011

BT

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 covers this

b) deployment arrangements of systems using ConEx

- 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

document structure

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

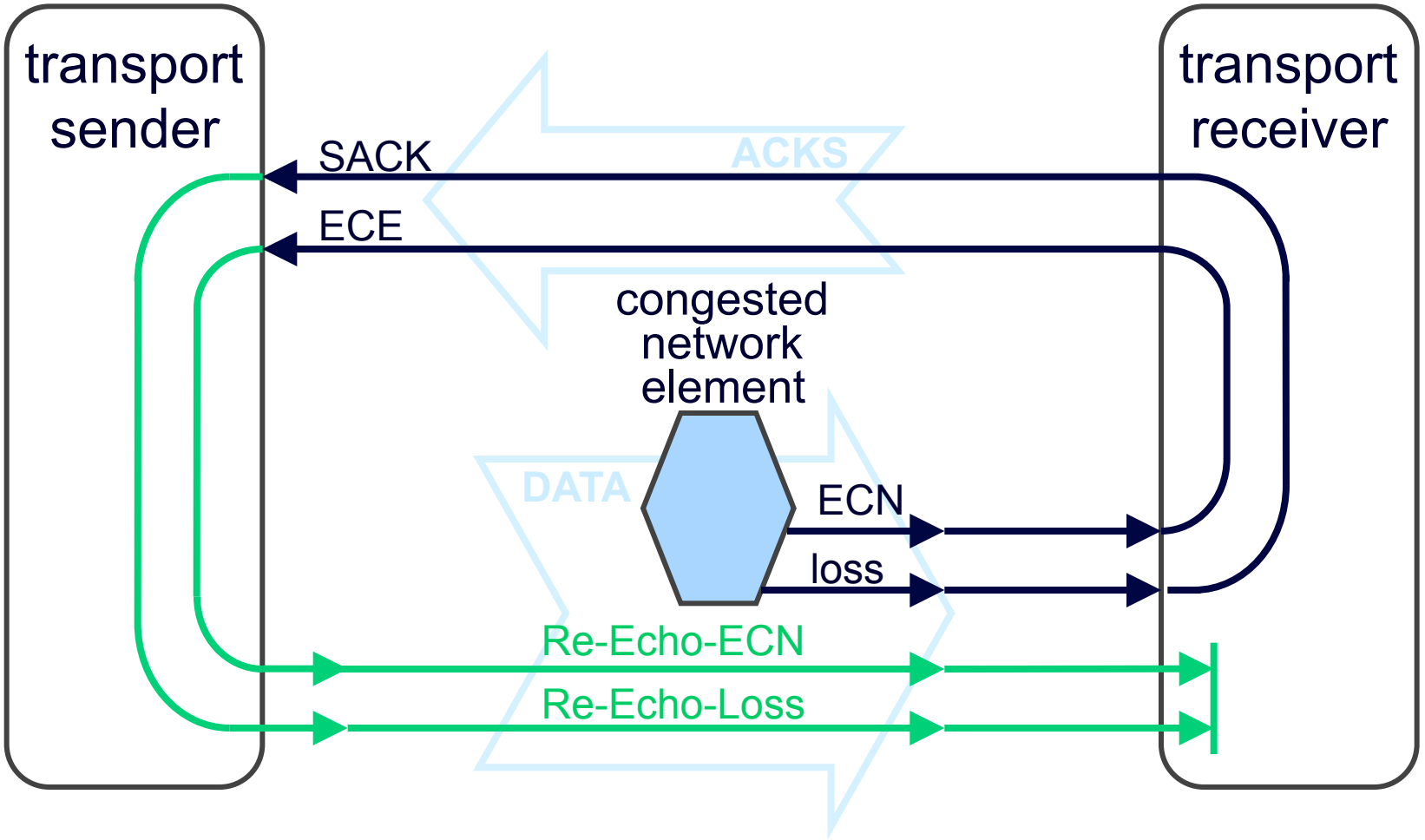
   2. mobile network
      → [draft-kutscher-conex-mobile]
   3. internal to a multi-tenant data centre
      (write-up to be finished)

ConEx deployment features recap

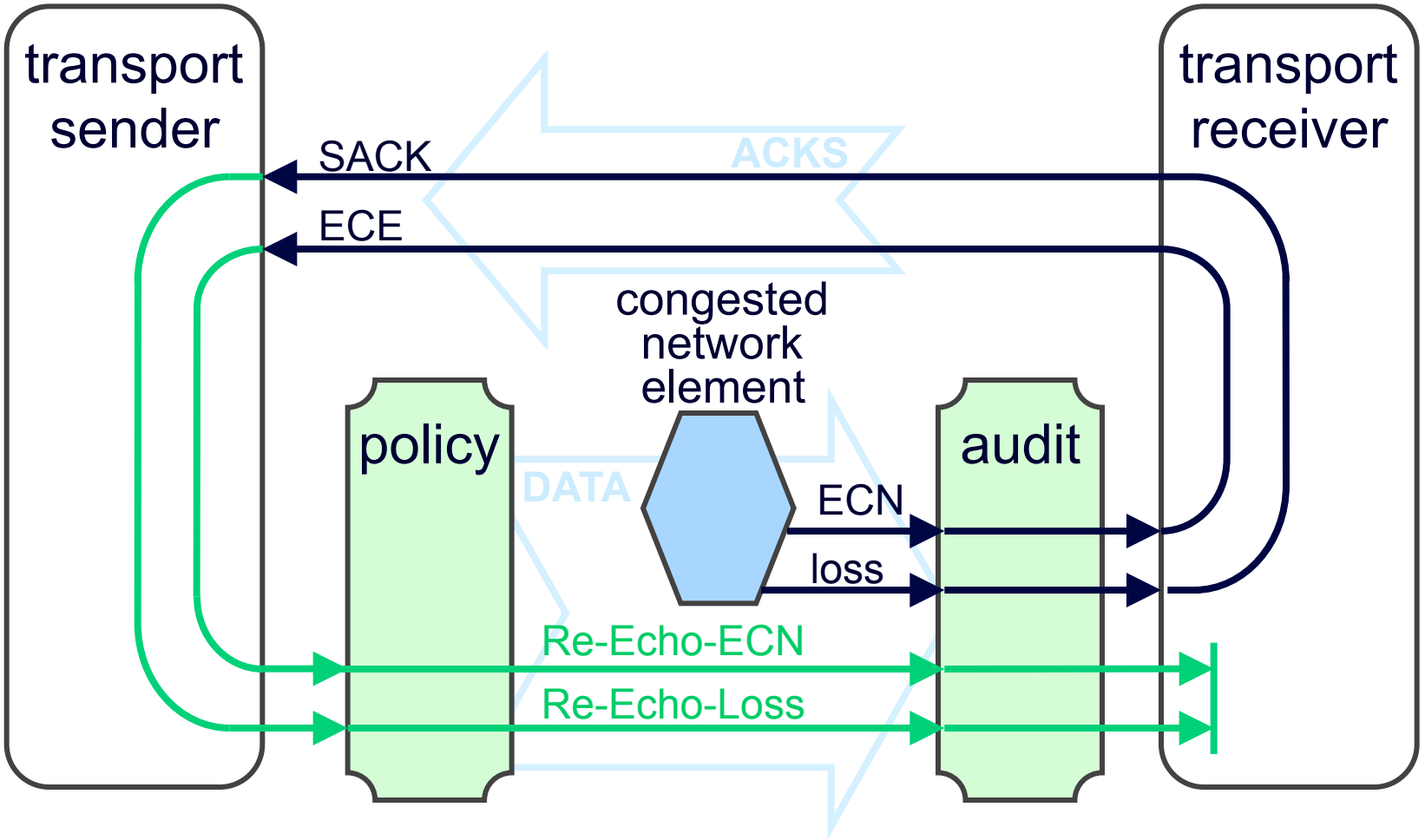
- sender modification essential
  - change each transport protocol incrementally
- no change required to queues & forwarding
  - ECN not required in the network (but better if ECN)
- ECN not required at the receiver for conex
  - Sender should always attempt to negotiate ECN with the receiver
- packets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

ConEx recap (I)

basic signals and functional units



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