



ConEx Concepts and Abstract Mechanism

[draft-ietf-conex-abstract-mech-01.txt](#)



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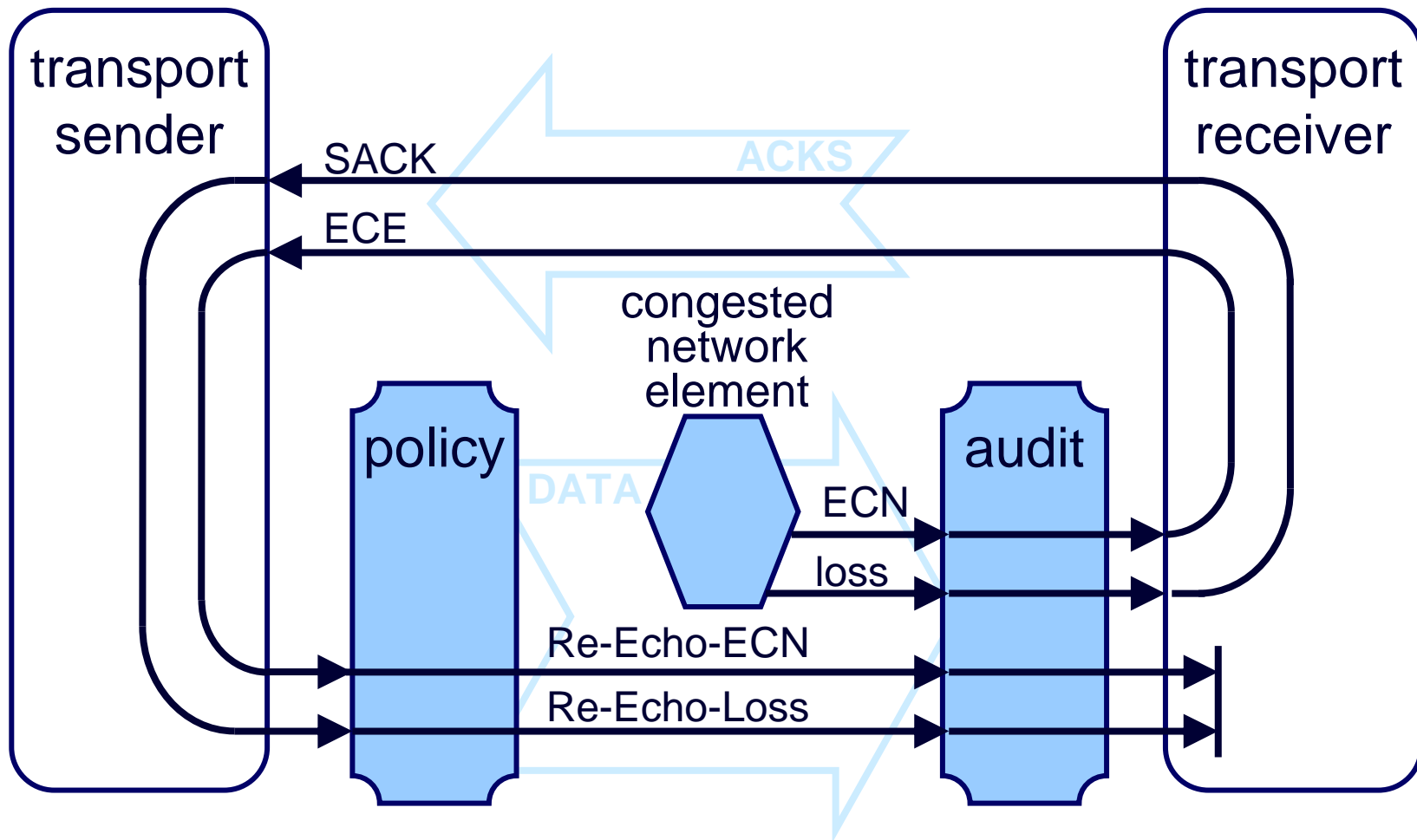
ConEx Concepts and Abstract Mechanism

- **working group draft:** [draft-ietf-conex-abstract-mech-01.txt](#)
- **intended status:** informational
- **immediate intent:** attract review comments, then WGLC
- **milestone target:** Jul 2011

recall

- defer encoding to avoid obscuring underlying design
 - abstract design of algorithms & protocol
 - encoding in different protocol headers can follow (IPv6, v4)
- scope
 - loss-based (for incremental deployment), not just ECN
 - any transport, ConEx just using TCP as first concrete step

basic signals and functional units



improvements to draft

- what ConEx is not (requested on & off list)
 - sender does NOT expose congestion to network so that routers can do detailed congestion control
- rational for Credit signal (presented in Beijing)
 - simplify audit by making e2e transport responsible for RTT delay
- change to TCP ECN feedback could have wider use than ConEx
 - feeding back all congestion events, not just one per RTT
 - data centre (DCTCP) needs this, and others...?
 - chartered ConEx-TCP draft should make this feedback a separate module
- behaviour constraints for audit function (see next slide)
 - normative text in an informative draft
- monitoring against policy as most generic function (insight from concepts-uses)
 - combined with other actions
 - capacity upgrade, penalty clause, charge, warning
 - congestion policing → policy monitoring + congestion policing

added whole subsection

behaviour constraints for audit function

- Minimal false hits
- Minimal false misses
 - responsive – pref at first packet that sends balance negative
- Transport oblivious
- Sufficient sanction
 - even against tradeoff attack between policer & audit
- Non-vulnerability to memory exhaustion
- Non-vulnerability to identifier white-washing

minor mods

- updated filename etc (wg item)
- general clarifications and tarted up ASCII art
- acks: Toby M, Nandita D, Mirja K, Caitlin B
 - oops – missed off acking Marcelo's review

main item left on To Do list: partial deployment

- propose new section collecting pointers to all aspects of partial deployment
 1. ConEx and/or non-ConEx packets
 - encoding [abstract-mech]
 2. ConEx and/or non-ConEx receivers
 - ConEx Components [abstract-mech]
 3. Interwork with loss and/or ECN queues
 - encoding & reqs [abstract-mech]
 4. Some networks use ConEx signals, others don't
 - partial deployment [concepts-uses]
 5. other non-e2e arrangements
 - eg. ConEx proxy [draft-kutscher-conex-mobile]

status & plans

- more “What ConEx is NOT”
- more & better ASCII art
 - e.g. the architecture I just showed
- new section to collect partial deployment pointers
- consider interaction between ECN & drop
- get wider review
- otherwise, looking in fairly good shape
- could go to WGLC then queue for concepts-uses?



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