ConEx Concepts and Use Cases
draft-ietf-conex-concepts-uses-01

T. Moncaster, Moncaster Internet Consulting
  J. Leslie, JLC.net
  B. Briscoe, BT
  R. Woundy, Comcast
  D. McDysan, Verizon

3/31/2011
Outline

- Status of Changes Requested at Beijing
- New material on longer time scale
- New Items from the mailing list
- Partial Deployment
- Next steps
Status of Changes Requested at Beijing

- **draft-ietf-conex-concepts-uses-00**
  - Removed Mechanism description (App A)
  - DDoS Mitigation section removed (Sec 5.3)

- **draft-ietf-conex-concepts-uses-01**
  - Added use case about inequity of usage in long timeframes
  - Revised congestion description [Bauer09], definition (RFC 6077)
  - Other minor changes

- **Changes not yet addressed**
  - Clarify differential QoS use case
  - Flesh out operator perspective, but avoid discussion of pricing
New section on longer time scale in -01

• List discussion recommended split into two use cases
  – Longer time scales and traffic management from Beijing
  – Self congestion/shapers and “go faster” from list discussion

• Merging Longer Timescales and Traffic Mgmt into Section 5.1
  – Reference heavy/light user problem description (e.g., [Varian])
  – Summarize usage of traffic management over longer time scales
  – Describe potential uses of longer time scale measurements
    • Setting policer, shaper parameters
    • Understanding traffic patterns, better capacity planning
  – May remove detailed example from Section 6.2
New Items from the mailing list

• Handling shapers and self congestion
  – Text included Stuart Venters’ “Go Faster” concept
  – Discussion added to section 1 in -01 draft, indicating that focus is on inter-user congestion
  – Does wg want to drop the “Go Faster” concept?
• Other ways to incentivize LEDBAT not in current draft suggested
• Need to provide better motivation in Introduction
• Need to complete partial deployment discussion
Partial Deployment

• Proposal for how to alter S5.5
  – start assuming ConEx first deployed on sender
    • incentive: declaring volume that’s not congestion-volume
    • first move by OS/app developers, in expectation of use by net
  – pointers to each aspect, with brief explanation
    • repeating same list of pointers in abstract-mech
    • similar to current first 3 paras, but structured
      1. ConEx and/or non-ConEx packets \(\rightarrow\) [abstract-mech]
      2. ConEx and/or non-ConEx receivers \(\rightarrow\) [abstract-mech]
      3. Interwork with loss and/or ECN queues \(\rightarrow\) [abstract-mech]
      4. Some networks use ConEx signals, others don't
      5. other non-e2e arrangements (e.g. proxy)
  – in remainder of section, flesh out #4 & #5 (next slide)
    • might need proxy as a new component in abstract-mech
“Some networks use ConEx signals, others don't”

• describe basic network-by-network idea:
  – ConEx in some e2e transports (only sender or proxy nec.)
  – a network can unilaterally protect its segment of the path
    • ingress monitoring/policing
    • egress auditing
  – as more networks participate, can merge
    • can evolve at borders to more scalable out-of-band monitoring

• non-ConEx traffic
  – either police more stringently (as now)
  – or turn into ConEx with proxy (more complicated)

• finish with charter scenario as an example
Next Steps

- Address Open items from list discussion in a revised draft
- Have Working Group Last Call on revised draft
- Issue response with last call comment resolution

- Goal/Milestone from Charter
  - Mar 2011 - Submit use case description to IESG as Informational