

# 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

# 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 →[abstract-mech]
      2. ConEx and/or non-ConEx receivers →[abstract-mech]
      3. Interwork with loss and/or ECN queues →[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