draft-valin-codec-results-00

Summary of Opus listening test results

The draft covers…

- Known listening test results on Opus
  - Six testing groups on pre-final bitstreams
    - SILK: Dynastat / Deutsche Telekom / Nokia
    - CELT: Authors results in IEEE and EUSIPCO
    - OPUS: Authors results from IETF Maastricht
    - OPUS: Broadcom tests
  - Three testing groups on the final Opus bitstream
    - Google listening tests
    - Hydrogen Audio listening test
    - **Nokia Interspeech 2011**
- In field testing
- Comparison to the requirements

Nokia Intespeech 2011

- 9-scale ACR MOS test

- Clean and noisy speech samples

- Opus out-performing G.722.1C and G.719 on clean speech at 24kbit/sec and above

- Opus hybrid at 28kbit/s very close to G.718B at the same rate

- Opus wideband out-performs AMR-WB at 20kbit/s, reverse is true for 12kbit/sec and below

- Opus at 6kbit/s gave poorer quality than AMR-NB at 5.9 kbit/sec (only NB test)

Conclusion on requirements section

- Opus v. Speex NB (Google)
- Opus v. iLBC (Google)
- Opus v. Speex WB (Google; pre-final dynstat)
- Opus v. G.722.1 (Google; indirectly Nokia 2011)
- Opus v. G.722.1c (Nokia 2011; pre-final CELT)

Conclusion on desired objectives

- Opus v. AMR-NB (Google; Nokia 2011)
- Opus v. AMR-WB (Google; Nokia 2011)