acticom_ROHC: Robust Header Compression solution

Frank Fitzek
acticom presentation at the
1. Berliner UMTS Tag
July 2002
Ludwig Erhard Haus, Berlin, Germany
■ ROHC offers
  ■ efficient transmission of IP data over wireless links
  ■ in contrast to existing solution it is robust
  ■ standardized in RFC 3095

■ acticom_ROHC
  ■ software module in ANSI-C (source code or binary available)
  ■ considered for mobile devices with limited processing capabilities and memory
  ■ additional feature: acticom_ROHC and PPP (RFC 3241)

■ acticom_services
  ■ adaptation and integration into customers’ platforms
  ■ consulting regarding ROHC performance
ROHC Potentials

- ROHC* for voice/audio traffic
  - LPC coded voice stream@5.6kbit/s w/o silent detection
    - without header 25% of bandwidth used
    - acticom_ROHC 37% (29%) of bandwidth used
  - GSM coded voice/audio stream@13.2kbit/s
    - without header 45% of bandwidth used
    - acticom_ROHC 53% (47%) of bandwidth used

- ROHC* for video traffic
  - H26L coded video stream with variable bandwidth
    - reduction of 25%

* potentials for IPv4  (higher potentials with IPv6)
- Network quality reflects network provider’s view
- Objective/subjective quality reflects the customer’s view
- Objective quality through PSNR for video
- Subjective quality through MOS for voice
Performance Evaluation

- NetworkMeter
- Provider’s view
- Error-prone voice stream
Performance Evaluation

- NetworkMeter
- Provider’s view
- Error-free video stream in H263 format
- Higher gain with H26L/MPEG4 video standard
Performance Evaluation

- VideoMeter
- provider’s view
- error-free video stream in H263 format
- higher gain with H26L/MPEG4 video standard
www.acticom.de
contact@acticom.de

Am Borsigturm 42
13507 Berlin
Germany

The only situation where we consider to be wired!