802.20 Traffic Models Discussion

September 2003

Traffic models group: Status

- Progress
  - Aug 7 conference call after July meeting
  - No activity on e-mail (we need input!)
- Consensus Achieved
  - Scope of traffic model group
  - Usage Scenarios
  - List of traffic types
- Proposal to categorize traffic types to prioritize work
  - Please comment

Traffic modeling scope/approach

- Model active user, not subscriber

- Model application traffic, not traffic mix
  - Traffic mix likely to be part of Evaluation Group

- Adaptive applications
  - No modeling of dynamic adaptation in traffic model
  - Can be handled as different traffic types if needed

- Background/aggregate traffic
  - It may not be feasible to model bulk background traffic to represent an aggregate of multiple user nodes instead of many individual nodes

Usage Scenarios

- Consensus on following list of usage scenarios
  - Laptop user
    - Large display, high power, large storage, portable
  - PDA
    - Medium display, medium power, medium storage, mobile
  - SmartPhone
    - Small display, low power, low storage, very mobile
  - Telematics, remote cameras

- Different versions of traffic model needed for the same application, e.g Web Heavy & Web Light to capture usage variation

Traffic types

Application	Traffic Category	Priority for Evaln. Group	Availability of suitable traffic model(s)	Different versions needed
VoIP	Real-time	High	High	High-rate, low-rate
Web Browsing	Interactive	High	High	Heavy, Medium, Light
WAP	Interactive	High	High	
FTP (File transfer)	Best-effort	High	Medium	Fixed/deterministic (for testing), Heavy, Light
Video-conference	Real-time	Medium	High	Heavy, Light
E-mail	Interactive/ Best-effort	Medium	Low	Heavy, Medium, Light, Non-interactive mode
Multimedia Messaging	Interactive	Medium	Medium	
Instant Messaging	Interactive	Medium	Medium	
Gaming	Interactive	Medium	Low	
Audio streaming	Streaming	Medium	Low	High-rate, low-rate
Video streaming	Streaming	Medium	Medium	High-rate, low-rate
PDA remote synch	Best-effort	Medium	Low	
File-sharing	Best-effort	Low	Low	
Broadcast/multicast	Best-effort	Low	Low	High-rate, low-rate
Telematics	Best-effort/ Real-time	Low	Low	

Traffic Models Prioritized Agenda

- Increase effort to generate contributions. Consensus on one type after other
  - Web-browsing, VoIP, FTP ..

- Conference calls (email is main medium)