The Needed Capacity to Serve Future Wired and Wireless Access Network

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Abstract

Future access networks are characterised by a significant increase in bandwidth capacity. Both wired and wireless access are in the near future expected to serve application with a bandwidth demand of several hundreds of Mbit/s. Whereas the "last mile" for long has been considered the main bottleneck in communication infrastructures, the engineering effort in this domain has pushed this bottleneck deeper into the core of the network.

Growing the core in a traditional way might be doable but probably to expensive and to inflexible as the bandwidth demand is expected not only to be higher but also more dynamic.

Integrated and cross layer resource management and increased use of lower layer technology is a possible way to provide more capacity at a lower cost also in terms of energy consumption.

This presentation will outline some of the problems and possible directions in building the supporting core infrastructure for the future access networks.