The flow of digital information toward, within and from the home, defined as a physical and logical hub, is growing at a fast pace. Broadband, digital and IP technologies are reaching mass adoption levels. The household is becoming a multiplatform hub with Ethernet gigabit networking speeds. At the same time, wireless is expanding the physical boundaries of the home extending the network to mobile household members. These changes are associated with modifications in media and information consumption.

The increase in household network capacity needs is having an exponential impact on “public” network requirements in terms of increased functionality and operating performance. In this context, a number of questions need to be addressed:

- What is the network capacity required by the new applications?
- Are we moving to a new definition of “busy hour”?
- What are the network intelligence requirements to enable the multiplicity of applications to ride on the network (Security, High transaction databases, Middleware and APIs, Software, Network protocols and signaling)?

Based on the answers to these questions, we believe that, unless steps are taken to improve the infrastructure, growth in traffic threatens to erode the “public” network quality of service. Finding a solution to the public network challenge will require significant investment with associated market risks. Current industry structure and competitive intensity might have a negative impact on the ability to address the consumer need to upgrade the network. Four potential scenarios will be explored:

a) Policy driven changes to the Telco investment case: the regulator steps in and implements policies that modify some of the parameters of the investment case relaxing some of the financial constraints on the Telco investment case (telcos win, cable loses);

b) Cable TV wins and Telco loses: Telcos do not succeed in capturing significant market share, and the cable TV industry implements an IMS-like solution which allows it to be the network provider of choice in the consumer market (Cable wins, telcos lose);

c) Hypercompetitive anarchy leading to unmet market needs: Intermodal competition results in a stalemate where, concerned about market risk, network providers slow down their investment plans and consumers might not have all their needs met;

d) Industry shake-out resulting from irrational exuberance: “fallacy of composition” investment assumptions prompted by additional entrants lead to irrational pricing, consequent industry shake-out and delay in meeting consumer needs