Communication infrastructure and its importance for broadband markets

Report presentation
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Background and purpose

• In 2010, Deloitte on behalf of Stokab, conducted an analysis of different infrastructure market models and their impact on the key broadband market criteria; coverage, speed, quality of service, competition and price

• The analysis demonstrated that a Municipality model. i.e. a market with at least one larger operator that provides open and operator neutral fibre networks and being limited vertically integrated, could be a highly efficient market model

• During 2013/2014 conducted a deeper analysis of different markets models, their characteristics and impacts

• The analysis confirms the results from the previous study and shows that the Municipality model is an efficient model for securing broadband markets with good coverage and speeds as well as efficient competition
Market models

- Two market models has been analysed as part of the scope for the report:
  - The Municipality model, i.e. a market with at least one larger operator providing open and operator neutral fibre networks and being limited vertically integrated (in Sweden often an operator driven by a municipality and hence the name)
  - The Incumbent model, i.e. a market dominated by a large and vertically integrated operator
- The key difference between the two market models is the dominant player's level of vertical integration and the related market effects
Framework for assessing market model efficiency

- Based on the targets in Digital Agenda for Europe (DAE) the Swedish national broadband strategy, a generic framework with evaluation criteria to assess the efficiency of a broadband has been developed.
- Framework criteria comprises:
  - Coverage
  - Speed
  - Quality of Service
  - Competition
  - Price
- With the support of the developed framework and the criteria, the two defined market models has been analysed with regards to their ability support efficient broadband markets.
Case studies

- The developed framework was tested in two case studies; Stockholm and Copenhagen.
- The two cities were chosen based on their similarities and their distinct different market models.
- The case studies showed that the Municipality model of Stockholm, scored high across all the five framework criteria. Two strongly contributing factors to Stockholm’s ranking and position are:
  - Access to an open and operator neutral fibre infrastructure that can be shared by operators and service providers.
  - The main infrastructure operator’s (Stokab) decision to limit its services to dark fibre offerings.
- Copenhagen’s position and scoring is a consequence of the dominant operator’s (TDC) market position and model with:
  - Limited incentives to build out fibre infrastructure.
  - Limited availability of dark fibre for alternative operators to build their network solution and services on.

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<th>Market</th>
<th>Coverage</th>
<th>Speed</th>
<th>Quality of Service</th>
<th>Competition</th>
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<td>Stockholm</td>
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<td>Copenhagen</td>
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*Summary case studies comparison*

- High: Indicates the characteristics have a significantly positive influence on the outcomes.
- Medium: Indicates that the characteristics may have some correlation with the outcomes.
- Low: Indicates that the characteristics have little correlation with the outcomes, and it may be less favorable in terms of consumer benefit.
Conclusions

- The incumbent model’s dominance in several European countries, could present a significant challenge for reaching DAE targets

- The main challenge with the model is the level of vertical integration

- Municipality models with low level of integration (dark fibre provisioning) enables better competition and can be an important instrument to enable better competition and network efficiency

- The main underlying reasons for the model’s efficiency are:
  - The municipalities’ focus on building and owning fibre and communication infrastructure to stimulate investments, competition, innovation and value to its citizen
  - The municipalities’ view on fibre and communication infrastructure as infrastructure similar to road and railways rather than telecommunication assets
  - The long term perspective on the investments with the ambition of building and maintaining an infrastructure that can be share of several operators as well as other organisations
  - The, in comparison with other market models, generally lower degree of vertical integration which creates the opportunity for truly open and operator neutral networks
Conclusions

• Support for the municipal model, i.e. non-vertically integrated operators providing open and neutral access to dark fibre networks, is of key importance and interest for any country or region striving to meet ambitious broadband targets and drive innovation and competition

• By deploying a multi-fiber point-to-point network in a node architecture and restricting the municipal operator’s mission to only supply (unlimited) dark fiber to the market on equal and non-discriminatory terms, several benefits can be achieved:
  
  • Better opportunity for alternative communication operators, SPs and ISPs, to drive service development and innovation, without being hindered by the substantial CAPEX requirements of a fiber deployment or being forced to rely on competitor’s fiber infrastructure
  
  • Broader range of service providers and end-user products and services
  
  • Strengthened prospect for asset sharing not only for operators and service providers as also businesses and organizations, such as banks, authorities et cetera., can utilize dark fiber to tailor communication solutions that fit their specific communication needs, which in turn further lower the total investment cost (CAPEX) per user on the network
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