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Nokia Siemens Networks Response to the Draft Commission Recommendation on regulated access to Next Generation Access Networks (NGA)

Nokia Siemens Networks welcomes the opportunity to comment on the Draft Commission Recommendation on regulated access to Next Generation Access Networks (NGA). We see the regulatory conditions for NGA as a crucial factor for promoting sustainable NGA investments in Europe. While we support some of the Commissions positions as stated in the Draft Recommendation, there are also aspects which need to be reconsidered in order to avoid a negative impact on NGA network roll-out in Europe.

1. General

Regulating only in cases of market failure and having the long-term objective of general competition law instead of sector-specific ex-ante regulation with according remedies are generally accepted basic principles.

Consequently, the regulatory action should vary depending on the competitive situation of the markets. Ex-ante regulation, if needed at all, should focus on long term enduring bottlenecks. Competition law should apply whenever possible.

In order to have world-class infrastructure in place that grants for competitive markets, investments must be supported and market development encouraged. Therefore we urge the Commission to make the promotion of NGA deployment and respective investments the most important regulatory goal and to reduce the burden of remedies imposed on investors in NGA.

Applying today's ex ante regulation for copper based access networks to next generation access networks may act as a serious disincentive to any large scale investment.

By having this goal in mind our response takes into account a migration path from current copper based broadband access to future pure optical access.

2. Broadband deployment as key objective

Nokia Siemens Networks supports the Commission's view that broadband deployment is a key Community objective for the further development of the European economy and there is therefore a need to make the transition to fiber-based access networks in an efficient but timely manner. Deploying fiber optical cable in the access networks will enable the provision of innovative and better broadband services. Broadband services will be a key driver for the competitiveness of the European industry and thus foster economic growth and employment within Europe. In times of financial crisis and instabilities it is more than ever the public sector's role to provide for long-term planning security for infrastructure investment.

3. Definition for Next Generation Access Networks

The Commission states in the draft recommendation (general principles, no2) that “NGAs are access networks which have been substantially upgraded either wholly or in part, using existing local access infrastructures and technologies and/or using new optical fiber infrastructures, and which are capable of delivering broadband access services with bandwidths significantly above those currently widely available.”

Nokia Siemens Networks would like to remark that this is rather unspecific and potentially addresses a large variety of network architectures and technologies. As the consultation focuses on market 4 and 5 and on the rollout of optical fiber, Nokia Siemens Networks assumes that NGA means wireline access which consists wholly or at least in part of optical elements.

4. Regulatory Certainty

We share the Commission’s view, that regulatory certainty is a precondition for investments and the respective development of Europe’s telecommunication market. Regulatory certainty greatly contributes to removing investment barriers.

In this context, Nokia Siemens Networks asks the commission to ensure consistency with the debate on reviewing the telecoms package e.g. by carefully assessing the proposals on fostering NGA that have recently been adopted by the European Parliament in first reading.

5. Infrastructure competition

We welcome the Commission’s aim to facilitate infrastructure competition. This allows longer-term sustainable competition and increases consumer choice and innovation. In this context, Nokia Siemens Networks thinks that the draft recommendation would benefit from a clear definition of the term infrastructure competition. We understand infrastructure competition as competition that includes ICT elements of infrastructure access.

Nokia Siemens Networks would welcome clarified language in paragraph 7 of the consultation where doubt regarding the technological or economic feasibility of duplication of infrastructure is expressed. A decision on whether duplication of infrastructure is impractical or undesirable should be left to the market.

6. Sharing of and access to civil works

We agree that civil works represent a major part of the total roll-out costs for NGA and that therefore availability of (and access to) civil works such as ducts can reduce the overall investment significantly and can thereby facilitate NGA deployment.

Investment in civil works shall be done in the most economical way. Civil works might also be shared with other non-telco activities; e.g. renovation of sewage pipes, water, etc. Each time digging becomes necessary, fiber ducts shall be deployed.

7. Geographical segmentation

We would like to underline that a uniform regulation may not be sensible as market conditions within Europe are very different depending on the concentration of business and private users. Therefore we agree with the Commission that NRAs should examine the need to define geographic markets taking into account the competitive conditions created at both a national and sub-national level by the progressive roll-out of NGA networks and the status of infrastructure competition.

8. Technology development

It is important to recognize that technology choice for broadband access will vary according to the market conditions, e.g. from country to country. We will see different evolution paths depending on current networks, on business models and market development, and other factors. Future networks will be tailored to the demand and the respective business models and will therefore include different architectures and technologies.

When deploying fiber, operators can choose between different alternatives:

- Fiber to the curb/node (FTTC/FTTN),
- Fiber to the building (FTTB, e.g. multi dwelling Building), or
- Fiber to the home (FTTH, single-home or -apartment).

The decision, which scenario to choose, depends on existing copper and duct infrastructure, the costs an operator is willing to spend, on the bandwidth the operator intends to offer, on the competitive environment, etc.

Today, there are various technologies supporting these alternatives: VDSL2 which uses the existing copper lines in the “last mile” (the last part of the access to the customer), PON (Passive Optical Networks) and AON (Active Optical Networks).

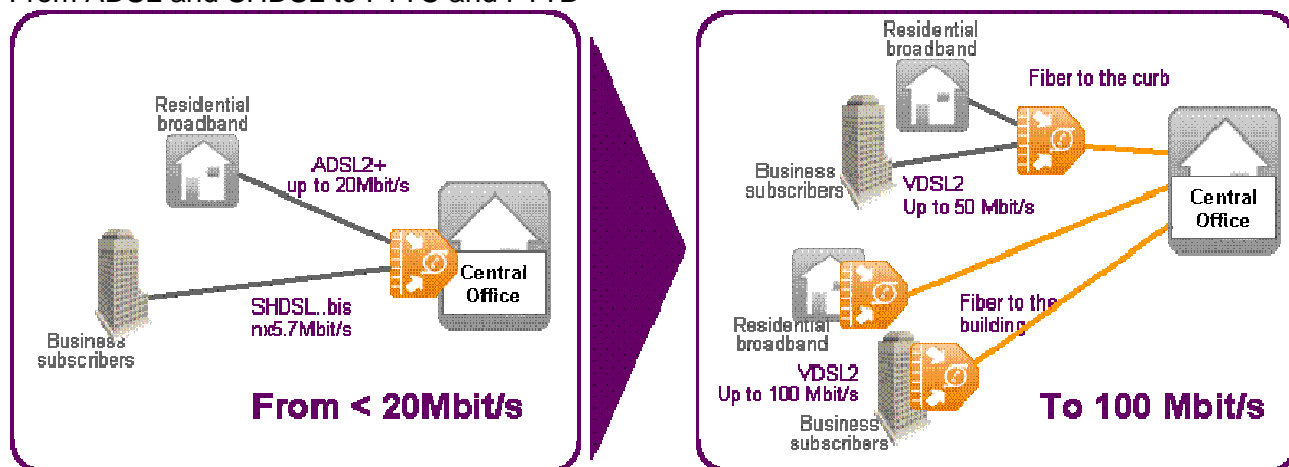
Hybrid fiber-copper solutions (FTTN/C, FTTB) allow NGA deployment with shorter time-to-market and lower initial investment compared to FTTH, and accordingly lower commercial risk. Such solutions fully satisfy current bandwidth needs. From this perspective it is not justified to go the next step towards FTTH, which requires huge investment, using today’s technical solutions.

We assume the main wave of FTTH investment to come in some years. But at that point of time, today’s FTTH solutions might be outdated and new passive and WDM based technologies will allow for much better fiber utilization and higher bitrates per consumer, at lower cost and lower power consumption. This makes such NGA networks highly efficient optical networks. In addition NGA will allow operators to reuse existing infrastructure to a significant extent.

9. Development in Europe

Today making the most of already existing broadband infrastructure by deploying VDSL2 - very high bit rate DSL - by using FTTC and FTTB architecture is the logical and adequate step in most cases. With bandwidth up to 100Mbit/s, FTTC and FTTB satisfy the bandwidth and application demands for the next few years in the most economically viable way. Operators can benefit from their current assets including existing copper infrastructure and from their proven knowledge in network operation to a maximum extent.

From ADSL and SHDSL to FTTC and FTTB



Relevant applications for residential users are enabled with FTTC and FTTB, for the time being.

Due to revenue streams that remain flat, many operators are facing huge CAPEX and OPEX challenges. Thus they have to minimize these costs. In an FTTH case, CAPEX is extremely high mainly due to the fiber infrastructure which has to be deployed. Accordingly, it is not clear yet how far currently available FTTH solutions will be deployed.

Nevertheless, the demand for still higher bandwidth is predictable.

With next generation optical access (NGOA) networks we will see cost effective technology that is superior to today's technology in terms of bandwidth, distance and coverage. Next-generation optical access networks will offer bandwidth up to one gigabit a second per subscriber while also cutting OPEX and central office expense by extending reach to as much as 100 kilometers.

Summarizing the above we are convinced that the technological evolution - especially in times of a financial crisis - will follow an evolutionary approach from today's ADSL to FTTC and FTTB using VDSL2 technology. When consumer demand rises above 100 Mbit/s, next generation optical access technology, NGOA, will be deployed. The advantage of NGOA are cost efficiency as well as increased bandwidth, distance and coverage performance in comparison not only to VDSL but also in comparison to today's FTTH technologies.

10. Impact on regulation

It is important that regulation takes into account, that technology evolution of NGA is ongoing and a regulatory environment must be light and flexible enough so that innovation and investment - also in the forthcoming technology steps to next generation optical networks - are promoted.

Regulatory action should vary depending on the competitive situation of the markets. Ex-ante regulation, if needed at all, should focus on long term enduring bottlenecks, which can not yet be seen for NGOA. Transition scenarios should be considered. Competition law should apply whenever possible.

In order to have world-class infrastructure in place that grants for competitive markets, investments must be supported and market development encouraged. Therefore we urge the Commission to make the promotion of NGA deployment and respective investments the most important regulatory goal and to reduce the burden of remedies imposed to investors in NGA.

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