



**AXIA'S COMMENTS ON THE REVISED DRAFT RECOMMENDATION ON
REGULATED ACCESS TO NEXT GENERATION ACCESS NETWORKS**

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1. INTRODUCTION

Axia is pleased to provide its comments to the European Commission on the Revised Draft Recommendation on Regulated Access to Next Generation Access Networks which is submitted to Public Consultation.

Axia intends to bring to the European Commission its full experience in implementing Next Generation Networks in Alberta (Canada) France (14 local networks) and Singapore (1.2 million FTTH households).

2. GENERAL COMMENT

Axia welcomes the initiative of the Public Consultation on Regulated Access to Next Generation Access Networks by the European Commission.

Indeed, as can be seen on the French market, the legal framework voted mid 2008 to deploy optical fibre networks has not been sufficient to increase optical fibre investments.

As long as operators do not know the access conditions to existing fibre infrastructures and the access conditions to next generation networks (mutualization/multi-dwelling/co-investment...) they will not launch optical fibre deployments.

3. AXIA SPECIFIC COMMENTS

3.1. Access to wholesale physical network infrastructure (Market 4)

3.1.1. Access to civil engineering infrastructure of the SMP operator

- **Access to civil engineering infrastructure of the SMP operator needs to be regulated to ensure :**
 - **An 'open access' for alternative operators to the existing civil engineering infrastructure to lower investment costs**
 - **Cost-oriented access prices with long-term stability to secure infrastructure investment**
 - **The limitation of extra costs such as upfront costs to get information on existing infrastructures in specific areas. For example, the SMP operator in France is asking 800€ to give information on physical network infrastructures for each local business area ('zone d'activité'). Axia operates in 700 business areas in France, which means that the upfront cost to get information on existing physical infrastructure for these specific areas and for Axia alone is 560k€ in total.**
- **Access Information/documentation to civil engineering infrastructure of the SMP operator should be available**

via a database to which each alternative operator should have access.

3.1.2. Access to the terminating segment in the case of FTTH

- **Axia agrees with the recommendation regarding the terminating segment in case of FTTH, especially :**
 - **The determination process, via a consultation with potential access seekers, for the distribution point of the terminating segment**
 - **The obligation for the SMP operator to update the reference offer for access to its civil engineering infrastructure with a reference offer to access to the terminating segment of the NGA network and to provide access to the distribution points in accordance with the principle of equivalence as set out in Annex II**
 - **The cost-oriented method to determine the access price to the terminating segment**
 - **The obligation for the SMP operator, where legally available, to deploy multiple fibre lines in the terminating segment.**

3.1.3. Unbundled access to the fibre loop in the case of FTTH

- **Axia, as the leader of Open Access Networks, recommends the Open Access Networks model for the unbundling of the fibre loop in the case of FTTH, which means :**
 - **The creation of an un-conflicted, truly Open Network that is available to all parties at the same low bandwidth rates (non discriminatory)**
 - **A single rate structure for the entire network, to solve the Digital Divide where rural areas are historically disadvantaged by limited access to broadband services, combined with prohibitive prices if such services were available**
- **The main benefits of the Open Access Network Model are the following :**
 - **One network for all applications :**
 - **Data: two-way guaranteed bandwidth for web services**
 - **Voice: migration of telephony network to VoIP**
 - **Video: enabling video broadcast and video on demand**
 - **Best, fixed rates for all customers**

- **Lowest bandwidth prices**
- **Same fixed prices for rural and urban customers**
- **Stimulates competition and local business**

- **No-conflict**
 - **Transparency of pricing and customer contracts**
 - **Open-book partnership with community**

3.1.4. Access obligation in the case of FTTN

- **Axia agrees with the recommendation regarding Access obligations in the case of FTTH, especially :**
 - **The unbundled access conditions to the copper sub-loop**
 - **The cost-oriented method to set-up the access cost to the sub-loop unbundling**

4. APPENDIX : AXIA GROUP PRESENTATION

AXIA NETMEDIA'S OPEN ACCESS NETWORK VALUE PROPOSITION

1.0 Market Optimiser

- Axia acts both as a technology integrator and market optimiser. Axia plans, designs, develops and operates ultra-high-performance Real Broadband Open Access Networks that provide uncompromised connectivity in and between both large and small communities.

2.0 No-conflict Open Access

- Axia's unique business model creates an un-conflicted, truly open network that is available to all parties at the same low bandwidth rates.
- By creating a single rate structure for the entire network, Axia solves the Digital Divide where rural areas were historically disadvantaged by limited access to broadband services, combined with prohibitive prices if such services were available.
- Axia "unbundles" the fibre network infrastructure from the active operational layer of the network and gives the government long-term control of the fibre infrastructure. Axia also unbundles the network and associated services from the emerging Web Services sector (Application and Retail Service Providers) thereby eliminating conflicts with Web Services participants.
- Axia is completely willing to exclude itself from the retail market if doing so drives value, choice and competition in that marketplace.
- Fundamentally, Axia believes a model in which the operator of the open access network also enters the retail marketplace is inherently conflicted, regardless of any regulatory or structural attempts to maintain separation between the two sides of the business. This is because the Retail Services sector is the large and growing profit opportunity and therefore it dominates corporate strategy.
- Only an organisation that contractually commits to refraining from entering the retail marketplace can provide a no-conflict open access model that is functional.
- In the case where the solution entails Fibre to the Home (FTTH), Axia participates in the provision of local access services but extends free choice to all consumers as to which vendor they prefer and equivalent access to all Retail Service Providers .

3.0 Proven Track Record

- Axia built (with Bell Canada) and now operates the Alberta SuperNet one of the world's largest regional IP broadband networks.

- Summary of the Alberta SuperNet:
 - Connects 429 Communities (Points of Presence or Interconnects)
 - Fibre to the premise (or in some cases wireless local access) to:
 - 2,073 learning facilities
 - 309 library facilities
 - 400 health facilities
 - 1,300 government facilities
 - Network spans 661,000 km²
 - 11,660 km of Fibre
 - 3,267 km IRU, 2,240 wireless transport
- Axia, with its partner VINCI Networks, is also the leading provider of ultra-high performance Real Broadband™ services at the Département level in France, having won more projects than any other provider in the market.
- Development of regional IP networks in France being pursued on Département or community basis through Délégations de Service Public (DSP) mechanism
- Summary of Axia's success in France
 - Axia operates through Covage: a 50/50 partnership with Vinci Networks
 - 12 concessions won (of 15 bids) as of January 2007
 - >4.3 million people covered
 - >2,029 communities
 - ~100,000 businesses
 - FTTP, FTTC, PON, WiFi, WiMax
 - Concessions to come: 40 – 45
 - Concessions Axia intends to bid on: 30 - 35
- Axia, with a 30 percent interest, led the OpenNet consortium in Singapore through the procurement and contract award process, which was selected by the Infocomm Development Authority of Singapore ("IDA") to provide passive fibre grid services (the Network Company, or NetCo) to bring fibre to every premise as part of Singapore's Next Generation National Broadband Network.
 - The other owners and respective interests are: Singapore Telecommunications Limited - 30 percent; Singapore Press Holdings - 25 percent; and SP Telecommunications Pte Ltd - 15 percent. As a result of the IDA's open access regulations, parties were limited to 30 percent ownership.
 - The Singapore solution is the first comprehensive metropolitan fibre to the premise deployment and demonstrates that compelling prices, performance and choice can be achieved using Axia's open access no conflict business approach.
 - Axia has proven that its approach to implementing these new next generation networks meets visionary public interest requirements and provides compelling value and performance in a modern metropolitan city.
- Summary of OpenNet network

- OpenNet's design is a fiber-to-the-home solution, bringing fibre to each individual residence.
- Added to this is a design that brings fibre to every business and government building.
- The Network design specifically includes 95% of all addresses in Singapore.
- The network design includes more than 1.3 million termination points, 9 Central Offices (CO), 2,400 Main Distribution Frame (MDF) rooms, and 70,000 sheath kilometers of fibre-optic cable.
- OpenNet is also committed to provide service to premises not included in the initial rollout as of January 1 2013.

4.0 Widest Coverage Possible

- Axia's objective is to achieve 100 percent Fibre to the Premise (FTTP) connectivity for all schools, hospitals and Government buildings in a jurisdiction.
- We target to achieve such coverage by either building the network ourselves or by leveraging existing network assets where feasible.
- Axia does not require ownership or control of the fibre infrastructure. Axia assembles its networks through a combination of new fibre builds and long-term leases or rental of existing fibre assets.
- In Axia's experience, it is only once one demonstrates the means and intent to build a complete state-wide network that the incumbent providers will negotiate access to their existing fibre assets.
- In the Alberta SuperNet out of a total of 11,660 Kms of fibre approximately 3,627 Kms or 31% were leases of existing fibre rather than new build.

5.0 Economically Viable

- Axia believes that ultra-high performance Real Broadband networks should be considered state infrastructure no different than roads, water and power.
- As such, once a state builds a Real Broadband network it is only logical to assume the state will commit its own telecom spend to that network.
- In Axia's experience, a one-time capital contribution combined with a state committing its existing telecom spend for an extended period (i.e. 10 yrs) is enough to justify the build-out and ensure the long-term viability of the network.
- For no more than a state is spending today they can dramatically increase the level and quality of service while creating world-class infrastructure that will benefit the entire state.
- More importantly, since the network extends state-wide and makes small community based Service Providers economically viable; the Government solves the rural broadband access issue once and for all eliminating the need for recurring operational spending on broadband access.

6.0 Lowest Rates

- Axia does not carry the overhead or historical complications of the current telecom incumbents. Our approach to building a world-class ultra-high performance Real Broadband IP network lets us deliver incremental bandwidth rates that redefine the marketplace.
- In its proposals Axia typically commits long-term incremental bandwidth rates that are not just one-half or one-quarter of current wholesale rates, but up to ten times lower than existing wholesale rates.
- In addition, our low rates are the same regardless of where on the network a particular customer happens to be. The most rural of locations pay the same rate as an urban centre.
- It is important to note that Axia's rates include a completely symmetrical connection and unlimited throughput. A bandwidth connection can be utilised 24 hours per day, seven days per week without incurring additional charges.

7.0 Rural Coverage and Choice

- The effect of building an No conflict Open Access Network with Points of Presence (PoPs) in every community is that it creates true commercial viability for a new class of specialty service providers in even the smallest rural communities.
- From the community based Points of Presence (PoPs) Axia enables the creation of a vibrant competitive Local Access Service Providers (LASPs) market to independently serve the commercial and retail markets.
- Viable competition is created at the Local Access level because of the Open Access network will provide the best answer for the customer on an ongoing basis using any local access technology that fits the purpose.
- The end result is the creation of affordable access to ultra-high performance Real Broadband for even the most remote of communities.

8.0 Best Leverage of Public and Private Capital

- Axia's experience has shown that the public interest is best served when one-time capital funding can be provided to assist in the large capital expenditure needed to build regional networks.
- With an appropriate level of committed spend, Axia will contribute capital to a project that at least matches and in many cases exceeds the capital provided by the target jurisdiction.
- Axia enables digital transformation of key Government initiatives in Education and Health Care with all the attendant benefits to all Government levels while actually achieving reduced spend by government in respect of the cost of network services.
- Very low cost of incremental bandwidth for Government ensures a Government has "flat lined" its network costs.

- Once the Real Broadband network is in place Axia structures its solutions to ensure that the Government maintains long-term ownership and/or control of the network.
- Axia's Open Access Network business model is flexible and adaptable. Axia is happy to work with a government to create a solution that is appropriate for the particular competitive and political dynamics of that jurisdiction.

9.0 Real Broadband

- Axia uses the term "Real Broadband" to describe a truly modern, ultra-high-performance, guaranteed quality of service-equipped and centrally managed digital communications network. Together with leading-edge electronics the network will deliver reliably integrated voice, video, image and data traffic through a single, unified network. Axia's ultra-high performance Real Broadband Networks are distinguished from traditional broadband networks by the following characteristics:
 - Guaranteed symmetrical and duplex capacities from 1 Megabit per second ("Mbps") to 800 Mbps or Gigabit speeds per location;
 - Unlimited throughput with no additional fees tied to download or upload activity; and
 - Guaranteed service levels for both upload and download speeds, monitored 24X7 to ensure the network is always available.

10.0 Scalable Long-Term Solution

- Axia's approach of building new fibre optic infrastructure, combined with leveraging existing modern network assets, results in a ultra-high performance Real Broadband IP network that has the capacity to grow with the state's demand for years to come.
- Fibre is the only true infrastructure broadband technology with virtually limitless capacities and a 25-30 year lifespan. The "up to" bandwidth rates of DSL and 3G are simply not good enough for a true Real Broadband Network.
- Government retains strategic and commercial control of the fibre in the long term ensuring no repeated monopoly/duopoly market.

11.0 Full Transparency of all Revenues and Costs

- Axia's specialty purpose no-conflicts business approach enables open transparency with a full accounting of costs and revenues of the entire scope of its network.
- An effective, aligned relationship depends on understanding of each of the party's interests. Under Axia's model each State is able to make a more fully informed decision about the merits of extending or reconfiguring State Network coverage.

12.0 Infrastructure for the Future Delivering Benefits to All

- Ultra-high performance Real Broadband networks are not a luxury or optional new technology.

- These Real Broadband networks are vital infrastructure that not only serve the needs of Governments, but they are the communications engines that will drive the economies of the 21st century.
- Real Broadband networks enable Governments to build world-class communications infrastructure to serve their own communications needs while delivering on all of their e-Government initiatives for their constituents.
- These ultra-high performance networks enable cost-effective delivery of new and innovative solutions to the Healthcare and Education sectors.
- Axia solves the Digital Divide for consumers and businesses while enabling true competition and choice at the Application Services layer.
- Axia's ultra-high performance Real Broadband networks place the digital universe within reach.

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