

## **Network Automation AB**

### **Response to Ofcom open consultation on “Delivering super-fast broadband in the UK”**

#### **Executive Summary:**

This is Network Automations response to Ofcom public consultation regarding implementation of Next Generation Access networks.

It is our opinion that regulation must continue to place emphasis on network infrastructure competition. The regulation should avoid relaxing the infrastructure competition requirements based on perceived limited technology or economic viability. The industry and business will adopt and provide solutions as long as the regulation is clear.

The fixed network is still managed manually. Moving active equipment further out in the network will increase the cost for operating the network.

Efficient copper access network management should not be underestimated as underlying facilitator for NGA deployment. Regulation should continue to put focus on improved efficiency in operations of the copper network as a key component for NGA development.

In general we agree with the proposed recommendation in so that it put emphasis on network infrastructure competition as the key mechanism to be applied.

Simplified access to connectivity is a key component stimulating competition and must be consistent across the regulation area.

We like to add that there are already today automated solutions that do support much simpler and cost efficient connectivity for operators in the access network, thus facilitating more efficient infrastructure competition.

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## 1 INTRODUCTION

This report is the response from Network Automation AB, on the open consultation from Ofcom, regarding “Delivering Super-fast broadband in the UK”.

### 1.1 Record of changes

Rev.	Date	Prepared	Changes made
A.00	2008-11-27	LEH	Draft Version
A	2008-12-02	LEH	Release revision A

## 2 Background

The UK regulator has launched an open consultation on the topic of next generation access networks. The consultation focuses on how to address and improve the introduction of super-fast broadband.

### 3 Response

Response to the Ofcom stated questions:

#### What will super-fast broadband mean for consumers and businesses?

Question 1: Is there further evidence available on the applications and services or consumer benefits that may be supported by next generation access?

Answer: No comment.

Question 2: Who should lead on defining and implementing a process for migrations to and from next generation access networks? What roles should industry, Ofcom and other bodies play?

Answer: It must be the role of Ofcom to define the rules of this migration process.

Furthermore Ofcom must take the role to formulate public sector general demands for such a migration process.

This does not necessary mean developing the process in details but most definite to outline and underpin the key criteria of such a migration process.

We share Ofcom opinion on the importance of an efficient customer migration process. We firmly believe that this area has not yet been explored sufficiently. In our opinion the main problem with his area is that the SMP, i.e. OpenReach, lacks clear incentives to develop efficient migration procedures.

There are today solutions available that specifically targets efficient customer and services migration, such as Automatic Distribution Frames, but the implementation of such solutions has very low priority.

We believe the service providers and industry will deliver the solutions providing that incentives are clear.

#### Our vision for the future and the regulation should play

Question 3: What role is there for Ofcom in the ongoing debate on next generation access versus industry's role in progressing this debate through multi-lateral and bi-lateral discussion?

Answer: The fact that the fixed network is not a functioning open equal competition market provides for a regulatory body to oversee that the development will benefit the end customer.

Furthermore Ofcom objectives must be to reduce its importance by establishing long term objectives to reach a functioning deregulated open competition market.

With a functioning open competition based on passive access the role of the regulator will be less of a watchdog and more of a requirement stakeholder representing infrastructure strategic development and end customer values.

Question 4: How far does current regulation, including market definitions, equivalence and the BT's Undertakings, need to evolve as result of next generation access deployment?

The question to be answered is if the current structure and BT's undertakings has served its purpose? Are the incentives for OpenReach strong enough to improve performance? Has competitive conditions sufficiently improved as a result of the "Undertakings"?

There is today still a regulated monopoly on providing connectivity services.

It is our opinion that the incentives to improve performance in the access network must be more efficient. A regulated cost based operation does not necessary encourage development.

Furthermore to allow OpenReach to deliver both active NGA wholesale products mixed with passive products under such a regulation must be carefully examined. As Ofcom also states; active wholesale solutions stimulate competition less than passive. The regulation framework around a situation with OpenReach controlling both scenarios can be very difficult to manage.

It has the potential to reduce the diversity and development of efficient NGA and legacy network solutions. And it will most certainly prolong the debate around equality in practice.

**Competition remains key to delivering the benefits of next generation access**

Question 5: How important are passive products such as forms of sub-loop unbundling and duct access? Can the economics of these products support the promotion of effective and sustainable competition at this level? Which passive products should Ofcom pursue?

Answer: It is our belief that the passive solutions are the only true effective way to reach open and efficient competition, and thereby stimulate development and deployment. In our opinion there has still today not been enough exploration into deployment of such solutions.

The situation today; where the passive products are in reality managed by a regulated service provider, not subject to open competition, and in the absence of clear incentives, can have a limiting effect on the development.

Today the connectivity process is a slow, cumbersome, fault-prone and costly process. Churn or service migration is seen as potential problem rather than potential for improvement:

From the end customer perspective it is a process that takes time, cost money (and/or requires long term commitments) and is not guaranteeing to improve service levels. And it is expected to bring on disturbance for some time during the transition.

And for the service providers there is a costly preparation and a costly slow customer migration.

The most critical passive products in our opinion are copper connectivity. The arguments in favour of active wholesale products are basically based on the difficulty to provide efficient connectivity solutions for the passive solutions.

The ability to instantly move between services and providers, with 100% accuracy and with a predicted service level would be the single most important improvement to competition in the access network

Duct sharing and other co-existing facilitators must also be in focus as it has the potential to simplify and reduce cost of establishment of competition in the access network. Incentives to cooperate on factors that are not competition hindrance, but aimed at lowering the threshold of entrance on the market, should be in focus.

Question 6: What are the characteristics of high quality, fit for purpose active wholesale products? How far can active products with these characteristics support effective and sustainable competition?

Answer: We do not believe that active wholesale products can support efficient competition other than as exception cases as a “bridging” solution. The access network does already today lack open competition in the connectivity area. Passive products will further expand this protected position. In our opinion this will seriously limit the competition.

Only in certain segments, such as very low populated areas and areas with low demand for high speed broadband, it could be justified with active products as a temporary solution, to hinder further segregation of such areas from the main network development.

Question 7: Are there other options for promoting competition through regulated access that have not been considered here?

Answer: To further expose the fixed access network to competition through open competition on the network management. If the development of the access network is not progressing as expected there might be a need to also expose the management of the access network to competition, to invite other than OpenReach to manage the access network.

Question 8: How far may options for joint investment provide greater opportunities for competition based on passive inputs? Are there lessons that can be learned from similar ventures in other industries? What are the risks and advantages of such approaches?

Answer: No comment

Question 9: What should be the respective roles of Ofcom and industry in defining and implementing product standards?

Answer: No Comment

### Key to delivering effective competition and investment is pricing

Question 10: How far do stakeholders consider the pricing approach outlined here of pricing flexibility for active products and cost orientation plus considerations for risk is appropriate at this stage of market development?

Answer: We agree that there must be clear incentives for investments, driven by pricing flexibility. In our opinion cost orientation does not necessarily encourage development. It is crucial to reach the highest possible degree of competition to reduce the need for regulation.

Question 11: Will indirect constraints allow for an approach based on more price flexibility for active products? How will such an approach affect the incentives of different operators to invest and deliver super-fast broadband services to end customers?

Answer: No comment

Question 12: What period of time would be appropriate for such an approach to ensure a balance between the need for longer term regulatory certainty with the inherent demand and supply side uncertainty in super-fast broadband and next generation access?

Answer: Regulatory constraints and investment timeframe does not necessarily have to be linked. Regulation must encourage lowering of investment thresholds thus encouraging competition. Incentives must be on achieving competitive advantage rather than protect the market.

Question 13: What are the key factors that could make a review of any pricing approach necessary?

Answer: There should be a “Most efficient competitor” (MEC) view on the costs involved and not only basing the costs on the Openreach existing cost base.

**Eventually there will be a transition from copper to fibre**

Question 14: How far can the generic model for transition outlined here deliver both incentives to invest in next generation access while ensuring existing competition is not undermined?

Answer: It is not the model as much as the competition rules that will incentivise the investments in NGA. Firm focus on open competition and passive solutions will encourage sustainable development of both NGA and legacy access competition. Although fibre is outlined as the final solution, the NGA must be viewed as technology neutral with the aim to deliver super-fast broadband regardless of media.

Question 15: What triggers would be appropriate for the commencement of any transition process?

Answer: No Comment

Question 16: Once triggers or circumstances for transition are achieved, what would be an appropriate period for the various phases of transition (consultation, notice period, transition)?

Answer: This must be determined based on commercial criteria. Regulated investments, investments done under regulated conditions, must be safeguarded.

Question 17: Over what geographic area should any process of transition be managed, for example region by region or nationally?

Answer: No Comment.

**Regulation can play a smaller role in increasing revenues**

Question 18: What actions, if any, should Ofcom undertake to support new revenue models from next generation access?

Answer: No Comments



## What role can the public sector play in next generation access deployment

### Question 19: What role should public sector intervention have in delivering next generation access?

Answer: Public sector should take an active role in defining and incentivising the public sector key objectives identified by next generation access. Specifically in areas identified as important but not quantified. Example: NGA has the potential to substantially reduce transportation as end customers can download music, video, books instead of going to the shop, manage bank access from home etc. But the management of the network should also be incentivised on reduction of transport. It is remarkable that the ongoing NGA projects do not have elimination of manual intervention, for the management of NGA, as key objective. This is one specific area where public sector should take an active role.

## A proposed framework for action

### Question 20: Are these the right actions for Ofcom and other stakeholders to be undertaking at this time? What other actions need to be taken or co-ordinated by Ofcom?

Answer: In general we agree. Although the discussion focuses on Fibre deployment, efficient copper connectivity management must not be forgotten as a key enabler for and driver for NGA deployment. More focus should be placed on Most Efficient Competitor approach and to use such learning's to improve cost efficiency in operating the access network.

## Comments

It is our opinion that regulation must continue to place emphasis on network infrastructure competition, passive products. The regulation should avoid relaxing the infrastructure competition requirements based on perceived limited technology or economic viability. The industry and business will adopt and provide solutions as long as the regulation is clear.

We also believe that access to connection and concentration points for effective competition must be mandated in any network development. Such access should not be allowed to be made more complex or inaccessible by any solution deployed. On the contrary any development should be encouraged to simplify and to improve management of the copper network as well.

It is our understanding that although closely associated with fibre networks the NGA encompass all and any media and specifically also copper. As described in the recommendation introduction of NGA will be in parallel to legacy copper networks. As a consequence improvements to copper networks and specifically management and operation and maintenance cost should not be underestimated as a driver for NGA implementation.

The result of managing copper connectivity manually, as today all operators do, is a very costly operation, with high degree of faults providing inefficient mobility between services and operators. The real competition is seriously hampered by these manual, both historic and current, procedures.

The ease of connectivity management in the copper access network as a facilitator for increased competition and thereby stimulating implementation of NGA must not be underestimated.

Furthermore we like to point out that our company has been providing products that facilitate connectivity for some time now. Our Automatic Distribution Frames (ADF), commercially available and deployed today, simplifies management of connectivity between services and operators in the copper access network.

It is also important that the regulation is consistent across the EU member states and that local requirements are avoided. We believe that facilitating competition is the most efficient way to drive the NGA development.

## 4 Conclusion

In general we do agree with Ofcom description and proposals. We would like to underline in proposed recommendations, that it put emphasis on passive solution competition as the key mechanism to be applied.

Simplified access to connectivity is a key component facilitating competition and must be consistent across the regulation area.

We like to add that there are already today products that do support much simpler and cost efficient connectivity for operators in the access network, thus facilitating more efficient competition.

## 5 References

White Paper: Automated MDF, Automating the last mile

White Paper: ADF in Next Generation Access solutions

NeXa reference list