



The new EC NGA policy statement

**A brief commentary on the July 2012 Policy Statement
“Enhancing the broadband investment environment –
policy statement by Vice President Kroes”**

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Important note

This paper is a discussion document only. Any ideas expressed need not represent views of Telzed Limited or any clients.

The purpose of this paper is to highlight some issues and to assist with further discussions and so aid the development of regulatory solutions. Although the discussion is centred on the EU, many points should have relevance to other countries.

1 The EC policy statement

This statement (Enhancing the broadband investment environment – policy statement by Vice President Kroes) was issued 12th July 2012. See:

<http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/12/554&format=HTML&aged=0&language=EN&guiLanguage=en>. This follows earlier consultations, including a Questionnaire and other Recommendations¹. Given the significance of broadband to the general economy, the high investment costs and the pivotal role that high speed access has to the whole telecommunications industry, any policies need to be looked at very closely. They will help to shape the future developments that will affect millions of people. The outcomes may have impacts beyond the EU – as many other countries look to the EU or else have regulations that are closely tied to the EU approaches.

The problems to be faced by any regulator of next generation access are significant. The many consultations and the past or on-going debates, all demonstrate that a simple solution that will be optimum in every country is not possible. The needs of consumers, incumbent telcos, competitive service providers and access-network investors must be balanced. On top of these, there are political demands to consider – EU, national and local. With many groups and learned economists all claiming different things, it is no wonder that clear and final policies have been slow in coming out. This policy may be considered another step on that difficult road.

The policy defines a number of items and also sets out a number of activities that are to follow on. The reader is recommended to examine the source for the full details. Key points include the following (taken from the statement). Note: I/we refers to Neelie Kroes or the EC.

General conclusions

1. “Securing truly equivalent access by alternative operators to incumbent networks is probably the most important guarantee of sustainable competition, on existing and new networks.
2. Too much intervention constrains flexibility... we will focus on issues vital for healthy competition, allowing us potentially to lighten regulatory intervention elsewhere.
3. .. regulating copper access prices can affect the pricing and return on other infrastructures: we can take advantage of this by focusing wholesale price regulation on key anchor products.
4. ...we cannot predict with any certainty what the best technological solutions will be
5. ...regulated wholesale access prices should get the "buy or build" signals right. .. alternative operators will continue to have wholesale access to incumbent networks so consumers can get competitive services.

¹ Recommendations are regulatory documents that specify an approach that national regulators should take “Utmost account” of. Therefore they are generally followed, unless there are some very good reasons for any EU country not to do so

6. Regulatory stability and consistency over time ... is vital to build trust by commercial investors and operators.
7. The question whether a rise or fall of copper prices would spur NGA investment is complex... we are **not convinced** that a phased decrease in copper prices would spur NGA investment.” **Emphasis added.**

Next steps

1. A recommendation on non-discrimination. This would underline that equivalence of inputs is the best guarantee of non-discrimination, to ensure equivalence of access.
2. A separate recommendation on cost methodology for regulated wholesale prices for network access... no grounds to question the price signals sent by the current average copper unbundling price in Europe (in the region of €9 per month).

... the appropriate "modern equivalent asset" for calculating copper access costs seems to be a fibre network: after all, no operator would today build a copper network. That said, over time consumers will come to place greater value on what they can get from NGA networks: then copper prices should adapt: on the basis that "you pay for what you get". Where NGA networks are price regulated, regulation should address investment risks by aiming at full cost recovery in such infrastructure even if future costs decline.

3. .. to impose obligations where they are most useful for alternative operators, and least burdensome to incumbents' normal commercial activities. The Commission's NGA recommendation of 2010 sets out the general principle of cost-oriented wholesale access to the networks of dominant operators, subject to certain exceptions.

When the right conditions are imposed by regulators (equivalence of input obligation, replicability test), and where there is a significant competitive constraint (from operators with cost-oriented access to the copper network in accordance with Commission guidance; or from other infrastructure-based competitors such as cable or LTE), I propose that NRAs need not apply cost orientation directly to NGA wholesale access products.”

Additional measures

“These measures sit alongside a package of others that can, together, make Europe the connected continent. These include:

- public funding support ... can tip the balance, and "crowd in" other market investors. So the Commission's... review of the guidelines on State aid to broadband are vitally important
- Measures to reduce the costs of NGA roll-out... a legislative proposal so that best practices from some regions are deployed EU-wide: like better re-use and sharing of duct infrastructure across sectors, and smoother permitting.
- For rapid roll-out of 4G wireless networks... national governments need to provide sufficient spectrum, at prices which are not confiscatory.”

This statement sets out a number of directions and clarifies a number of regulatory issues. There are some points however that are still unclear. Furthermore, a number of important outcomes will depend on the detail of the next steps and additional measures. These are discussed further in the next section.

2 The key policy directions

There are a number of significant directions in the policy. These are considered using the same structure as used in the policy statement above.

2.1 General conclusions

Statements 2, 4 and 6 are uncontroversial. Lighter regulation where possible, is surely a good thing. Technology is uncertain and it is certainly not a regulator's job to decide if and when one is better than another.

Consistency (conclusion 6) on regulation and clarity are also highly desirable. It is reasonable to say this has not been totally clear, with respect to NGA.

Statement 5 is also seemingly non-controversial. Getting the wholesale pricing right of course is the key to setting a build or buy signal. In the case of NGA and fibre in the loop, perhaps the traditional LRIC basis might not be so critical. Prices based on an efficient cost basis (LRIC) should provide the right signals and should give prices that satisfy the seller (who is also usually the investor) and the buyer. However if the wholesale prices were much higher than LRIC then it is unlikely that alternative service providers would make their own build decisions. Except in some smaller localities, the alternative providers are unlikely to build much FTTx. Very high prices are not a "build signal" to the alternative provider. Without the larger economies of scale of the incumbent, and with the risk of the incumbent also building fibre near-by later on, or reducing its prices, the alternative provider's decision to build is not obvious. An alternative operator is more likely to not buy the expensive wholesale service (and do nothing) rather than build its own lower cost network. There are of course exceptions to this and other outcomes are possible, but having no fibre wholesale services available at all or else highly priced ones, might not spur others to build access networks. The build or buy signal might be less clear than it seems. There may be only one or two actual FTTx builders in most of a country, no matter the wholesale price. This point is clearly something that can be further debated. Is there a need to have more than just a few access-fibre network builders?

Conclusion 1 is an important statement: the upfront point that other service providers should be given the same equal treatment as the access provider's own business, flags an important principle. This approach has been talked about a lot in the past and the UK's functional separation of Openreach from the rest of BT is a prime example that is often cited. This is a UK solution to some particular UK based issues, but it looks like the EC is supporting this type of logic to be used elsewhere.

The approach is that "equivalence of service outputs²" should to be given to all other parties, internal or external. This is not just pricing to each party in the same way, but also equivalence in service quality, physical interface points, planning, ordering and IT interfaces. This could of course get complex and expensive to implement. Defining this as a regulatory

² This is also termed "Inputs" as the output from the service supplier is also an input to the buyer. Both terms can be correct

remedy does not force full legal separation, but would require some significant processes and systems to be re-structured. Some new accounting structures will also be required.

The expenses of implementing equivalence centre round getting the internal processes and staff working to all parties (internal and external) in the same way. Also telcos have spent years building integrated operational support systems (OSS) to configure systems and manage staff. Splitting these up, is not simple or cheap to do.

Conclusions 3 and 7 are related. Item 3 implies copper pricing and some related services are set based on anchor products. This seems to use a term that has been used in the UK. Therefore existing wholesale services such as PSTN line rental, or 4Mbit/s broadband access using DSL, have existing prices. These prices “anchor” any new delivery of the same service over fibre. The anchor price is technologically neutral. Assuming the current prices are acceptable this avoids any cost analysis of the same service over fibre when it is moved to the NGA technology.

Item 7 is an important clarification. Arguments have raged for some time over whether lower or higher prices for copper wholesale service encourage or discourage fibre deployment. This statement seems to make it clear that especially-low prices are *not* supported as the way forward. There has been some past EC consultation work and a questionnaire on this issue. These issues are too extensive to be covered in any depth in this short paper. They are related to encouraging investment and the relative profits to be made under different scenarios. They are also related to the problem that cost-based pricing for copper (a non-controversial desire) can come out with values that vary hugely depending on the cost assumptions. Economists, consultant and accountants could not agree, and a “fair forward-looking economic cost,” does not have a single definition.

2.2 The next steps

The first step is a Recommendation on non-discrimination. This is not a net neutrality issue (which of course is concerned with non-discrimination) but with giving equivalent wholesale services. See conclusion 1. Net Neutrality is being addressed in a separate current (July 2012) consultation http://ec.europa.eu/information_society/digital-agenda/actions/oit-consultation/index_en.htm.

This new first step Recommendation will presumably cover equivalence of inputs to other service providers. What form this might take and how much costs are involved to implement it, will need to be looked at carefully. It cannot force structural separation (legally splitting the NGA supply business from the downstream business). However it is also not clear if the UK type structures could be forced as a remedy elsewhere. The outcomes are therefore, as yet, uncertain.

The second step acknowledges that current copper pricing does not need radical change. The cost-calculation basis for copper (by implication) does not need changing. This conclusion presumably has not accepted the arguments that other types of cost calculations that produce a ~€1 per month price compared to current ~€9/month, are better. However this conclusion is less clear from the following statement that, for copper: “you get what you pay for.” This seems to suggest some type of value based pricing could follow. What this means in practice is unclear.

Value based pricing *might* mean that if wholesale fibre based services at 40Mbit/s cost €15/month then a copper based service at 4Mbit/s will be priced relative to that.

Value based pricing has plenty of situations where it is used, especially in retail markets. The author of this Telzed paper examined this as a solution for NGN networks a few years ago. However it might be difficult to do for regulated services, especially if legal frameworks specify cost-based pricing. However even value based pricing might pass some form of “cost” definitions. More interesting would be how do you define the relative value of 4Mbit/s versus 40Mbit/s? The retail market is already beginning to address this: see any examination of the available broadband service prices.

A value-based pricing answer for wholesale prices is not clear. One Telzed-observation seems to be that the prices are likely to be “sub Dixon Clapp.” Historically many telco prices have followed a square root function (four times the speed costs only twice the amount). This rule has been very accurate for many services³. Perhaps the cost-speed function is changing so that four times the speed might only be 40% more costly. The cost-speed function and the value-speed function are not likely to have the same relationship. The pricing-function chosen of course has a major influence of the outcomes. Customers will all prefer 40Mbit/s over 4Mbit/s, but whether they will pay 20% more or 200% more for the speed benefits, is less clear.

The true value relationship will need to be clarified. Also the pricing direction will need to be clarified: will copper be based on the current €9/month type of price level or else on a new cost basis or else some fibre-based calculation of costs with a value adjustment to the lower performance of copper?

A key statement is that full cost recovery is required. This may seem obvious but the emphasis notes that costs over time change as well as the current pressures for lower wholesale prices. This naturally leads some buyers to desire *today*, the lower unit costs that should occur in five years' time.

The third step seems to state that there should be cost orientation for NGA, but if there are other constraints and factors, then this requirements might be lifted. This seems to indicate if there is either competition of supply or else good equivalence of supply (see above notes on non-discrimination) then the prices need not be cost-based.

This is an important move. It also implies something similar to the UK, where there is not a strict calculation of NGA service costs. BT can decide on this price and it must then use the same price for its own downstream business as well as other service providers. This is a simplification of the situation. It has a good rationale: BT can price very high, but its own retail business could not sell the services and make profit. So it partly is self-regulating. It also avoids a regulator having to make a complex cost-based price calculation when almost no one really knows all of the parameters accurately to make a really solid cost calculation. BT takes the pricing risk. Of course there are problems with this and other service providers might not all be happy.

Exactly what this step will produce needs clarification, which will (and must) surely come along soon.

In summary, two important outcomes are due:

³ Many engineers and financial managers have seen this effect in the past. The author of this report has analysed telco services in the past and seen this type of relationship. It is a very useful rule of thumb

- A Recommendation on non-discrimination
- A Recommendation on costing (and pricing) of wholesale access.

Most players in the telco industry would support both of these being produced as soon as possible.

2.3 Additional measures

The first measure is a review of public funding. This is a big issue for NGAs. Some customers and regions will never be commercially viable, so some public funding is required, *if* everyone is to have access to NGA services. Of course not everyone believes everyone should get NGA and/or it should be publically funded. A wide variation on this point is seen globally. Australia has a publically funded national network. The USA for example can be expected to take a rather different approach.

The EU approach has already seen some public funding in some countries. This is not without some controversy: too much or not enough? Who gets it? What about local municipalities helping local businesses? Anywhere that public money is spent, there are political issues. There are also competition issues as it can distort investment decisions.

This is a major subject and so clarifications on what the EC may allow (or not allow) is important. It is unlikely that the review will help to *create* the public funding in the first place. Arguably the biggest problem is getting the source money to fund the investment in the first place. Given the lamentable state of most EU governments' balance of payments, multi-billion investments in NGA are not looking very likely. However this might not always be the case:

- The economic benefits of broadband on the other overall GDP are well accepted
- A significant portion of many countries are economically viable, so additional funding is only needed in some areas. Some areas only need small additional funding to be viable
- A full fibre deployment could reduce network operational costs – so long as the copper costs are avoided. This only happens after a full transition, but fibre could reduce costs in the long run
- Can a country afford *not* to deploy fibre given that some other countries are already well advanced?

When considered against the huge monies currently being moved about in EU bail-outs and some other major infrastructure investments (for example a high speed rail plans in the UK) the amounts to deploy fibre in the loop nationally seem quite small. If NGA is considered more like getting decent road or water supply infrastructures, then the decision starts to become easier.

There are good arguments for: “just do it.” Therefore fibre investment should be moved up as a priority. It is claimed that FTTH (or even just FTTC) will pay for itself through benefits to the wider economy. Several problems with this approach are obvious: this logic might be taken by a government, but a telco who actual builds it and would have to do it everywhere, has different demands to meet. Public funding of any telco that is also in a competitive market naturally creates unease amongst the competing telcos.

The second additional Policy measure is less of a problem. Access to ducts, "Hole and pole sharing," access to other access infrastructures (sewage, water pipes, electricity) etc. could open up new options to deliver cheaper access services. This might seem simple enough when the infrastructure owners are the government owned or else the assets were built when government-owned (and possibly later privatised). However opening access up if the ducts etc. were recently built by a telco, while in a competitive market, is less simple from a regulatory and competition viewpoint.

The last Policy measure relates to cheaper 4G spectrum. Spectrum pricing is too big a subject to touch on here. It does at least indicate that the EC views 4G as another technology that has some similarities to NGA (fibre). Not everyone will agree with this of course. The UK (Ofcom) document (July 2012: Assessment of future mobile competition and award of 800 MHz and 2.6 GHz) on this subject shows that the EC actions are lagging behind. Ideally 4G spectrum recommendations should have been in place before now.

3 Conclusions

This statement is a welcome move forward. It is easy to criticise the pace of change or to make statements about the “best” way forward. Actually having to implement a “best” regulatory policy is not easy. The real solutions have to reflect the reality of the complex web of telco business, economic, investor and political issues. A simplistic “just build the fibre and get rid of copper” argument is great, but not likely to be implementable. The huge legacy of copper services cannot be eliminated without huge work. Regulation has to work around this. The statement is linking these issues. The difficulties faced in order to get all the factors sensibly balanced and yet still setting out a clear direction, are not to be underestimated.

The policy statement clarifies a number of points. However some are confused. Others should be clarified after further consultations and/or recommendations. These are keenly awaited.

The pace of change may frustrate some: the forthcoming recommendations may now be overdue and some countries have already put in place their own approaches. So when the recommendations do come out, these existing solutions may have to be allowed.

A final observation is that the policy statement is not directly concerned with getting the funding for NGA investment. Funding could come from governments, incumbents, alternative operators etc. The regulation should facilitate the investment and control competition issues. Some earlier discussions of NGA regulation have confused the subjects of: regulation, funding and politics. Although it is hard at times to keep them separate, the statement seems to be trying to do that.

For further help in these and any other related matters, please contact Telzed Limited.