



ETNO response to the draft BEREC Report on “a consistent approach to migration and copper switch-off”

ETNO welcomes the possibility to comment on the draft BEREC report on a consistent approach to migration and copper switch-off.

First of all, we would like to highlight that, given the current review process of the NGA and NDCM Recommendations and the upcoming adoption of a new Access Recommendation aimed at supporting a consistent approach regarding the regulatory approach on NGA/fiber networks, it is premature for BEREC to provide any recommendation regarding the copper switch off. The Report should only provide a snapshot of the current practice and identify those practices supporting swift switch-off processes. That being said, we provide in the document our views on the proposed BEREC recommendations.

Secondly, the approach of the EECC (see Recital 209 and Article 81) is rightfully one which balances the right of the network owners to phase out with the requirement coming from access seekers to have a sufficient transition period to adapt. The EECC does not seek to interfere with the investment decisions of owners of legacy networks. On the one hand, the decision regarding switch-off should indeed always remain with the network owner, on the other hand, NRAs should set the right incentives for not hampering the copper phase-out planned by operators and for facilitating the technical migration of customers to the new services. Indeed, the EECC requires to “*facilitate the migration from legacy copper networks to next-generation networks, which is in the interests of end-users*” and “*to avoid unjustified delays to the migration*”.

Thirdly, BEREC report misses to analyse an important aspect that may affect the migration to NGA/fiber networks, that is the price regulation of the wholesale copper access service (and FTTC). Indeed, it is recognised already by some NRAs (see for example Ofcom) and also by Visionary Analytics in its “Study on Regulatory Incentives for the Deployment of VHCNs in the Context of the Revision of the Commission’s Access Recommendations”¹ that an increase/deregulation of the copper price may support the migration.

1. Migration rules and commitments

a. Market-tested commitments on migration

Prior to imposing migration rules, the NRA should first assess and test with stakeholders on the market, any possible voluntary commitments offer by SMP operators (“SMPOs”) in this regard.

¹ “The successor recommendation should, however, permit the NRA to deregulate (or allow for an increase of) the wholesale price of legacy copper services as a transitory measure until the copper switch off takes place and when sufficient safeguards against abuse are present, such as (1) commercial closure of the legacy network has already been firmly committed, (2) the SMP operator’s VHCN network has already been rolled out, and (3) alternative operators have realistic prospects to offer services over the SMP operator’s VHCN network.”

The number of such type of commitments might be increasing in the coming years. As a recent example, in the context of the new Danish market decisions, which entered into force in Jan 1, 2022, several operators were appointed SMPOs, e.g. TDC NET offered a range of commitments on marked 3LC incl. a framework for copper decommissioning, where TDC NET can switch-off smaller copper areas up to 200 subscribers with a seven-month notice. Larger areas can be switched off with a 13-month notice. These notice periods have been in public consultations as part of the commitment procedure, and they have generally been accepted by access seekers (ANOs) and by the NRA.

Given the variation in availability of alternative infrastructure and the variation in market structure across Member States, ETNO welcomes that BEREC clarifies that *“depending on national circumstances the notice periods may be shorter or longer than the above-mentioned typical notice periods”* and that some factors (including the availability of fiber-based alternative wholesale access products, 4G, 5G, FWA..) may support the definition of shorter notice periods.

In specific national circumstances, such notice periods of satisfactory market-tested SMPO commitments accepted by the NRA, can then diverge from the general 1-3 years notice period, possibly down to 6-12 months instead.

b. Setting out migration rules

In any case, when adopting and imposing migration rules, NRAs are to take account of the SMPO’s proposals in this respect and involve relevant stakeholders at the outset. Following the imposition of these rules, monitoring or supervising of the migration process can then be limited to situations where issues would occur.

We agree with the fact that the most appropriate level (granularity) depends on the copper switch-off the SMPO pursues. We see that copper switch-off can be done per different areas, potentially one or several simultaneously, and not per city as such.

c. Adapting the framework if needed

Following the implementation of the copper-switch-off, it will be appropriate to carry out an update of the market analysis, so that new competition landscape is fully taken into account, when assessing the need for remaining regulatory obligations imposed onto a possible SMPO.

2. Notice period

We group our comments on BEREC’s proposals on the notice period, in function of the specific time-period:

- Firstly, prior to formal stop service date (no more commercialisation)
- Secondly, the definitive stop of the copper network

a) During the migration period: prior to formal stop service date

Stop selling

We agree that *“SMPOs may be allowed to stop selling legacy copper-based wholesale access products already earlier (the switch off)”* (p. 27).

As this will help the migration by providing some sort of progression in the process, this is indeed a necessary step in the migration process and should be rephrased into “SMPOs should be allowed” instead.

This does not mean that the ANO will not continue to use the existing offer during a certain period before the switch off but that gives a signal that everybody must be prepared for the switch off (page 27).

Still, in that respect, it would even be more efficient to require an ANO, as soon as the target (FTTH) infrastructure is available at a specific location, and thus also alternative retail/wholesale fiber-based access products are available, to only procure its new additional wholesale access product on the new future-proof (FTTH) infrastructure. This would help avoiding short-term migration still to be implemented at the time of migrations.

Therefore, access obligation on the legacy/copper network for new access lines should be removed and the price control obligation lifted or allowed to increase for the remaining existing accesses.

Exceptional shorter notice periods

During that same period of migration, in the presence of special external circumstances, the SMPO should have the possibility to notify copper outphasing with a shorter notice period, prior to the officially communicated end of service date.

Typical special external circumstances are roadworks impacting the copper network or degrading copper in areas where FTTH infrastructure is already deployed or will be deployed soon.

In fact, it would not make sense to replace copper in these areas anymore, as not future proof. Moreover, it would concern in most cases geographically limited areas.

Prioritize specific clusters

It should also be possible during the migration period to commonly agree with ANOs to prioritize the migration of certain (geographic) (clusters of) lines before the officially communicated end of service date. It might in fact be necessary to group geographic sub-categories of lines more efficiently than treating them equally across the board,

Typical situations justifying prioritizing such clusters are where some concentration points are almost empty and can be easily/more quickly be outphased than others.

Guard period

Finally, we are not in favour of the possibility of a “guard period” if this can be used as a structural manner to further postpone with an additional period of e.g. six months to migrate their end-customers. Such guard period should remain an exception.

d. At stop service date

If at the stop service date there is a refusal to voluntary switch to another network, it should be possible to force a migration (following a previous notice for example).

Such forced migration could be gradual: first a soft-cut (service is suspended provisionally and can be re-activated after agreement on a concrete migration), before carrying out a definitive-cut (where the line is ceased in the systems and cannot be re-activated anymore).

3. No obligation in relation to existing coverage beyond control of the SMPO

Page 28 states *“100% NGA coverage needs to be achieved already at the beginning of the notice period or at the end of the notice period for commercial closure and a sufficient long notice period”*.

In no case, an SMPO should be accountable from the deployment of fiber not under its responsibility, notably in zones where it is deployed by others. Indeed, a migration plan by an SMPO should never be linked to elements not under its direct control.

Furthermore, ETNO would like to highlight that there is no need for any pre-condition to be fulfilled at the beginning of the notice period and this indeed is not provided for in the NGA Recommendation.

In particular, requiring a 100% NGA coverage at the beginning of the notice period significantly delays the switch off, any condition related to NGA coverage should apply only at the end of the notice period and could never be 100% as many networks might have outlayers that are uneconomic and unreasonable to reach. It's also worth noting that when alternative wholesale products are available on the new network, *by definition* the NGA coverage condition should be considered fulfilled (and therefore such a condition would be superfluous).

BEREC should also clarify that the starting of the notice period should not be conditioned by any requirement regarding the migration of customers to NGA services, such a requirement would have the effect of significantly delaying the switch off.

For example, in Italy AGCom conditions the announcement of the switch-off to the reach of 100% NGA coverage and 60% NGA take up. Also WIK white-paper (cited) recognises that *“This could be a hurdle for network operators to switch-off their copper networks.”* And that *“more recent provisions on this subject in the 2018 European Electronic Communications Code, provides more flexibility on timing and the existence or nature of any regulated access than are implied by the 2010 NGA Recommendation”*.

4. Alternative access products

It is important to point out that alternative wholesale products could come from other operators than the SMPO (in particular if symmetric obligations apply to all operators alike) and other technologies than FTTH.

- In case alternatives are available from various operators, there is no need to impose onto the SMPO a specific ex-ante mandatory provision of alternative products.
- In that regard, the BEREC Guidelines should clearly clarify that an SMPO should not be responsible for communicating the availability of alternative wholesale products potentially provided by other operators, and thus not under its control.

5. Migration costs & copper pricing in a migration scenario

The migration, as such, has costs that should not be only supported by the SMPO.

Moreover, the more customers will be migrating to FTTH and other VHCN access networks, the more expensive it will be to maintain existing copper-based access lines.

Operating a duplicate legacy network will be increasingly expensive per access, and increasingly unprofitable unless increased costs are reflected in higher wholesale access prices for legacy access. Therefore, SMPOs should be allowed to increase the monthly rental fees of regulated copper-based products in FTTH deployed areas in order to further stimulate migration to fiber-based products.

From the perspective of supporting competition, worst possible regulatory decision would be to set artificially low access prices for legacy network:

- Alternative operators not incentivized to switch to fiber
- ULL access price may still be based on old inputs used for cost modelling, therefore widening the gap between real and perceived cost of operation

The unbundling tariff must always ensure that the investor recovers its efficient cost, even during the migration from copper to fiber and facilitate a smooth transition to fiber.

In the case of efficient investments in a given infrastructure, any tariff regulation must ensure that the efficient operator having invested this infrastructure can effectively make it profitable.

The cost per unbundled access can increase gradually over the market analysis cycle.

The cost per unbundled access is split into :

- asset costs,
- operating costs,
- costs of trouble-shooting (after sale service),
- other costs (support costs, studies, common costs, etc.).

Based on various projections made, each component can increase progressively over the following years (market analysis cycle).

Four cumulative effects can lead to such an increase, that should be effectively translated into an increase of the tariff:

- the decline in the total access base in service due to increased infrastructure-based competition (alternative FttH networks, cable, mobile only), which has a direct impact on the average cost of the assets and on the average cost of operation,
- the deformation of the customer base, with a greater weighting of rural areas following the migration from copper to fiber, which has a direct impact on the average cost of operation and the average cost of after-sales service,
- increasing pressure to maintain quality of service, coupled with an increase in particularly violent weather events, which has a direct impact on the average cost of after-sales service and on the average cost of operations,
- increasing input prices due to shortages for civil engineering capacities or general inflation.

Focus on the evolution of the number of accesses in service on the copper local loop network

The total number of accesses in service on the local loop network has been declining over the last ten years for most incumbent operators. Based on the dynamics underway, which show an acceleration of migration from copper to fiber, this trend is likely to accelerate.

Focus on asset costs

The decline in the number of accesses in service and increases input prices for access networks are the main reasons for the increase in the cost of unbundled access. Spreading network costs that remain largely fixed, primarily asset costs and to a lesser extent operating costs, over a shrinking number of accesses in service automatically leads to an increase in the cost per access in service.

Asset costs represent the majority of the cost of an unbundled access. They are divided between the costs of cables and splitters and the costs of civil engineering infrastructure. They depend in particular on the investments made, the life of the assets and the rate of return on the assets.

Focus on operating costs

The migration from copper to fiber, which initially concerns dense urban areas, will gradually change the composition of the copper access base in service over the next few years, with proportionally more accesses in service in less dense rural areas.

This deformation of the customer base will increase the operating costs of the copper local loop network.

The operating requirements of the copper network, on a per access basis, are greater in sparsely populated rural areas than in densely populated urban areas. Copper lines are longer in sparsely populated rural areas, with a higher proportion of overhead segments on poles, which require in many countries much more operation than underground segments.

All other things being equal, an access in service in a sparsely populated rural area requires about three times more operating resources than an access in service in a dense urban area. As accesses migrate from copper to fiber, which primarily concerns urban areas, the average operating cost per access in service will automatically increase sharply to consider the deformation of the customer base.

The geographical distortion of the installed base is combined with a natural tendency for operating costs to increase due to the aging of the network and the increase in climatic hazards, cable theft, cuts due to underground work, etc., which will further increase the average operating cost per access in service.

Focus on after-sales service costs

The increasing pressure on the quality of service of the copper local loop network has the direct effect of increasing the costs of after-sales service (i.e. all the expenses incurred by the operators to ensure the repair of faults).

The multiplication of violent climatic events (storms, floods, etc.) has the effect of destabilizing each time the industrial tool in the regions concerned, and even the surrounding regions, for which the operators are often obliged to provide external reinforcements for intervention on the ground.

This rate will continue to increase over the next few years due to the deformation of the network described above and the greater fragility of rural networks, which will cause more quality of service problems and, consequently, more after-sales service interventions (longer lines with overhead lines, which are more prone to problems than underground lines).

Focus on migration to FttH

For a smooth transition to FttH it is important not to distort the market by regulatory price decisions on copper which would make copper-based products more attractive in relation to fiber based products. Copper price decreases would have such an effect. Copper price increases, on the contrary, would make fiber more attractive.

Generally, due to the close link between copper and fiber prices, copper prices should reflect the overall cost trend for fiber-based access. Such trends might differ from country to country but overall it can be expected that costs for fiber access are likely to increase in particular where civil engineering costs are expected to increase or in time of higher inflation and supply shortages.

What about LLU regulation

Under ex ante regulation, the NRA may still impose access obligations on copper access network on the incumbent operator having significant influence and may even require it to charge rates that reflect the costs of the service provided.

However, under no circumstances may the NRA impose a tariff on the operator that would not allow it to recover the efficient costs it incurs in providing the service.

The NRA cannot envisage making the operator alone bear the increased costs of their copper local loop network in a context of accelerated migration from copper to fiber, in particular if there is a particular tension on quality of service. The costs of access to the copper local loop network are intended to be shared equitably between all the operators using it.

With this objective, the method used to set the LLU price must lead to the recovery of efficient costs effectively and ensure that by the end of the transition from copper to fiber.

This review of the LLU price should be mentioned in the guidelines as to be considered by the NRAs.

About ETNO

ETNO (European Telecommunications Network Operators' Association) represents Europe's telecommunications network operators and is the principal policy group for European e-communications network operators. ETNO's primary purpose is to promote a positive policy environment allowing the EU telecommunications sector to deliver best quality services to consumers and businesses.

For questions and clarifications regarding this position paper, please contact Maarit Palovirta, (palovirta@etno.eu) Senior Director of Regulatory Affairs at ETNO.