SOME COMMENTS ON

"TACKLING PARTIAL NOT-SPOTS IN MOBILE PHONE COVERAGE"

Consultation Document, Department for Culture, Media & Sport

Berkeley Research Group

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Prepared By:

Dante Quaglione
Managing Director
Berkeley Research Group

Introduction

The purpose of this note is to provide comments on the recent Consultation Document published by the Department for Culture, Media & Sport on November 5, 2014, to stimulate further discussion on aspects that, while directly or indirectly affected by the proposals, seem to have been overlooked.

My comments focus on national roaming in partial not-spot areas. Generally speaking, there are concerns that in highly dynamic and innovative contexts, in which network operators, to a large extent, employ innovation-based competition strategies, an obligation to provide national roaming may unlevel the playing field, undermine investment incentives, be detrimental to innovation (in particular, service differentiation) and trigger dynamic inefficiency.

In particular, my concerns relate to the:

- Need for national roaming regulations and possible conflict with network operators' commercial strategies
- Existence of alternative, less-intrusive and non-distorting, regulatory remedies
- Uncertainty on the criteria to measure the "efficiently incurred reasonable costs"
- Impact of the proposal on the incentives to invest

Need for national roaming regulations, and possible conflict with network operators' commercial strategies

Network operators compete by offering different service quality to different target consumer segments depending on their demand's features. Some operators may target consumers interested in less-expensive (low-quality) services, while others may target consumers interested in more-expensive (high-quality) services. Quality can be provided through more extensive network coverage, among other things. Partial not-spot areas may be the result of how network operators have tried to match the quality requirements of their target consumers. Not covering some areas may be a legitimate commercial choice that network operators make in order to provide consumers with the level of service quality they are willing to pay for.

By imposing national roaming regulations, the government may force some network operators (namely, those that decided to provide their customers with a capillary network coverage and high quality of services) to share their network with other network operators that, considering the specifics of their customer base, had decided to provide their customer with a less-capillary network coverage and a low quality of service.

It would be interesting to identify i) the network operators present in the partial not-spot areas and ii) the distribution of coverage across network operators in the partial not-spot areas. The two pieces of information can be used to ascertain if network coverage may be a lever to service quality and, therefore, an element to differentiate services. If so, it would be worthwhile investigating to what extent national roaming distorts innovation-based competition.

Existence of alternative, less-intrusive and non-distorting regulatory remedies

One wonders if there are less-intrusive and non-distorting alternatives that can effectively address the concerns of the policy maker.

By way of example, consider the following situation: two operators (A and B) provide exclusive coverage in two different areas (i.e., operator A covers Area 1 but not Area 2, while operator B covers Area 2 but not Area 1). If the implications on cost and benefits of obtaining coverage in the area they do not serve are balanced (i.e., if the benefit and cost savings for operator A from obtaining coverage and traffic capacity in Area 2 are similar to that of operator B from obtaining coverage and traffic capacity in Area 1), then bilateral (bill and keep type) commercial agreements between operators A and B would suffice to ensure coverage to both operators.

The advantage of bilateral commercial agreements over national roaming is that the former would not imply any future obligation on network operators and would be far less intrusive than the latter. National roaming would, on the one hand, likely trigger unnecessary administrative costs; on the other hand, after complying with license obligations, it may undermine investment incentives in network coverage.

Investment incentives may be undermined in that national roaming would ensure coverage and better service quality to network operators that didn't incur any investment costs and, most important, did not take any of the risks associated to that investment. This may result in a distortion of the playing field, providing incentives to free-riding and even the occurrence of windfall gain and losses, which would favor some network operators while penalizing others.

Uncertainty on the criteria to measure the "efficiently incurred reasonable costs"

The consultation document includes proposals on the pricing of the national roaming service. More specifically, Annex C (art. 6)[1] proposes a formula to define the cap of the national roaming prices of voice and SMS services. However, overall the proposed criterion appears generic and does not clarify several aspects that are important to the calculation of the cap.

For instance, Annex C doesn't clarify what "efficiently incurred reasonable costs" mean and, more specifically, under what cost basis such cost would have to be measured. Depending on the cost base used to measure efficiently incurred reasonable costs (e.g., Long Run Incremental Cost (LRIC) or Fully Distributed Cost (FDC) adjusted for network redundancies), windfall gains or losses may arise.

Suppose operator A, which provides national roaming services to operator B, undertook many years ago its investment in network coverage, so that, at present, the investment is nearly fully depreciated. In this case:

- The adoption of an LRIC cost basis may prompt substantial windfall gains to the benefit of operator A (indeed, it would earn a remuneration on assets whose cost has been already almost entirely recovered).
- The adoption of an FDC adjusted for network redundancies may prompt substantial windfall gains to operator B (indeed, it would pay low roaming charges based on capital costs calculated on the residual—that is, still to be depreciated—value of A's assets, while facing no investment risk to provide coverage in the area).

1 Annex C, The Wireless Telegraphy Act 2006 (Directions to OFCOM), Order 2014.

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Unclear proposals on how efficiently incurred reasonable cost should be measured may unlevel the playing field. Moreover, investment incentives may be undermined and induce network operators, which currently offer more widespread network coverage, to offer more limited network coverage in the future. Because of this, areas that currently "partial no-spot" may in the future become "complete not-spot".

Impact of the proposal on the incentives to invest and on dynamic efficiency

Most likely, the proposal of national roaming will affect profoundly operators' incentives to invest in network coverage, especially with reference to novel and higher-capacity transmission technologies. In particular, knowing that some services (currently, voice and narrowband service; perhaps, in the future, also voice over broadband and broadband access services?) are subjected to national roaming obligations, an operator may decide to wait for other operators to invest, with the intention, at a later stage, to access their network in roaming. However, by anticipating that, *all* network operators would have the same incentive to wait. This would result in a classical market failure, caused by the hope to free-ride on competitors' investments and risk.

Although aimed at addressing a problem, national roaming may fail to address the concerns of the policy marker: a regulatory intervention designed to resolve an alleged "partial market failure" could end up causing a "full market failure".

The proposal of imposing mast and site sharing, while likely to enhance the supply of voice and SMSs service of those operators that currently do not cover certain areas, appears less distorting and intrusive than national roaming. In fact, it would require operators to undertake some investment (e.g., in transmission equipment) to provide coverage in areas that they do not currently serve. It would also preserve operators' ability to differentiate their services, as they will be able to decide what technology standard to deploy and what capacity to offer on the basis of the preferences of their customer base.

CONTACT

Dante Quaglione | Managing Director
+44.20.3725.8359 | dquaglione@thinkbrg.com