

SOURCE: Telecommunications Regulatory Authority of Lebanon

TITLE: Challenges of Open Access Networks

With the current global discussions on open access networks, in the context of next generation networks, the TRA has identified several economic and regulatory issues to be considered in finetuning the applications of open access on national broadband networks. These issues are being debated by regulators and economists around the world. However little consensus has been reached concerning the best regulatory practices that would achieve the intended policy objectives. These issues can be summarized as follows:

1. The right balance between service competition and infrastructure competition
2. The Challenge of access to public and private properties
3. The Challenge of regulating public funded operations
4. Network Neutrality

In this paper, the TRA will summarize some of the current discussions and will document its opinion related to the current debate in order to help in reaching a preliminary consensus on best practices.

1. The right balance between Service competition and Infrastructure competition

Public policies in the last two decades aimed at transitioning the telecommunications market from a monopoly to increasing levels of service and infrastructure competition. This policy vision is currently being reassessed given the economic benefits of the next generation broadband networks and the high costs incurred in building such networks.

Policy makers therefore would like to achieve infrastructure competition but are restricted by the economic feasibility of multiple ultra broadband national infrastructures. Mandating the national broadband network provider to provide open access of its network for competitors at different levels within the network is a solution to overcome the shortcomings of the limited number of players in the national infrastructure market.

However policy makers and regulators have to acknowledge that open access models can lead to a wide range of possible outcomes related to the service-based competition or to the infrastructure-based competition. Similar to the unbundling of the local loop policies, the level of open access of the network to competing providers determines the level of service competition versus infrastructure competition. The higher the level of open access to the infrastructure layer, the higher the incentives for competitors to invest in their own network which will result in an increased infrastructure competition. The level of openness can be extended from the high level of lambda sharing, to dark fiber leasing, and to duct sharing.

Easy access to the national infrastructure will increase the incentive for investors and operators to compete on a service-level basis and only invest modestly in the necessary complementary facilities. In

addition, it will lead to lower incentives to migrate to facilities investment. This is particularly important for the access part of the network where service and competition in technologies promise to deliver innovation and efficiencies and better consumer experience. However, easy and open access to the core level of the national fiber optic infrastructure may curtail and delay, if not impede, the investment in complementary technologies such as wireless infrastructure technology that is fast-evolving to accommodate more bandwidth in an efficient manner.

Therefore we recommend that policy makers and regulators determine the desired level of competition (level of service or infrastructure competition) and accordingly determine the corresponding level and ease (pricing, procedures, etc...) of competitor's access to the national network.

2. The Challenge of access to public and private properties

The installation of new national broadband networks requires the access to existing private and public properties. This includes access to the ducts, poles, and all other physical elements that can be used to reduce the high sunk costs incurred in digging for, or laying down, the fiber networks in the core and in the access parts of the national broadband networks.

One of the biggest constraints of rights of way is the coordination between service providers and government bodies and among government bodies themselves. Given the lack of incentives of individual government departments and the shortsightedness of some government agencies about the importance of national networks, telecom regulators need to take the lead in ensuring that such coordination is smooth and does not act as barriers to the deployment of national broadband networks.

Coordination and facilitation of access to rights of way can be done through the following initiatives:

- Determining and publishing the terms and conditions of access to public properties, timeframes, rights and obligations, prices, and fees of access services, etc...
- Issuing a list of the different Government Departments and entities administering specific public properties and the types of public property that might be needed for rights of way, preferably through a GIS database that would cover all national infrastructures (water, electricity, sewage, telecommunications, etc...)
- Ensuring through proper regulations that Government Departments offer rights of way on a non-discriminatory, first-come, first-served basis.
- Determining the charges and fees required to recover the administration cost of such rights of way by the government department. It is noteworthy stating that these charges should be based on well justified formulas and be transparent to all investors.

3. The Challenge of regulating public funded operations

The concept of privatization that started in the 1980s with the privatization of fixed incumbent operators was based on the premise that government-owned operators were inefficient, nonresponsive to market demands and requiring substantial inefficient public investments. The current rethinking of the role of the state in funding the national broadband infrastructure is being considered by many governments given the importance of broadband and its infrastructure for the entire economy as well as the difficulty to attract investments for this large scale deployment.

However government funding may risk a misalignment of investment planning, management incentives and results in inefficiencies and distortions of the market and raises significant regulatory challenges. The independency of the regulator and the political control maybe jeopardized given the stakes that the government is acquiring in the market as a major player.

It is therefore, of utmost importance that each country analyzes the best ways to fund and operate such high cost national infrastructure and weighs the pros and cons of public versus private funds. Each country may have its specific conditions and unique economic, regulatory and legal models to attract the needed investments.

4. Network Neutrality

Another dimension of open access requires an open core network infrastructure to accommodate different technologies and widely diverse existing and forecasted services. In addition to the typical broadband and convergent services, the national broadband infrastructure will be the cornerstone to the delivery of services to support the different governmental, economic, and social activities; therefore applications should as separated as possible from the physical infrastructure.

Therefore, in addition to other competitive and economical reasons not mentioned in this paper, it is recommended that the national network provider limit its offers to wholesale and not act as a retailer. This will remove the danger of market domination, unfair market power, and skewing the investments, services, outcomes, and the market.