

FOSTERING INTERNET USAGE IN AFGHANISTAN VIA REGULATORY MEASURES

Background

Afghanistan is a developing country in Asia with unique characteristics that pose particular challenges to Internet usage development. Some of them are:

- Very difficult conditions for network deployment, such as rough and mountainous terrain;
- Lack of basic services in many regions, particularly electricity;
- About two-thirds of the total population live in rural areas;
- Landlocked country with expensive access to international gateways;
- Lack of Internet content in local languages (Pashto and Dari);
- High levels of digital illiteracy.

Another factor that ought to be accounted for is the fact that the country has been subjected to turmoil and civil unrest for a long time, and the sequels have profound long-lasting effects in society and institutions. One of the consequences is perceived instability by potential investors, which has delayed the introduction of new technologies and the use of Internet as a development tool.

Objective

The primary objective of this Open Forum discussion is to describe and analyze the effects of regulatory measures implemented to improve and foster Internet usage in Afghanistan, particularly the implementation of Open Access policies.

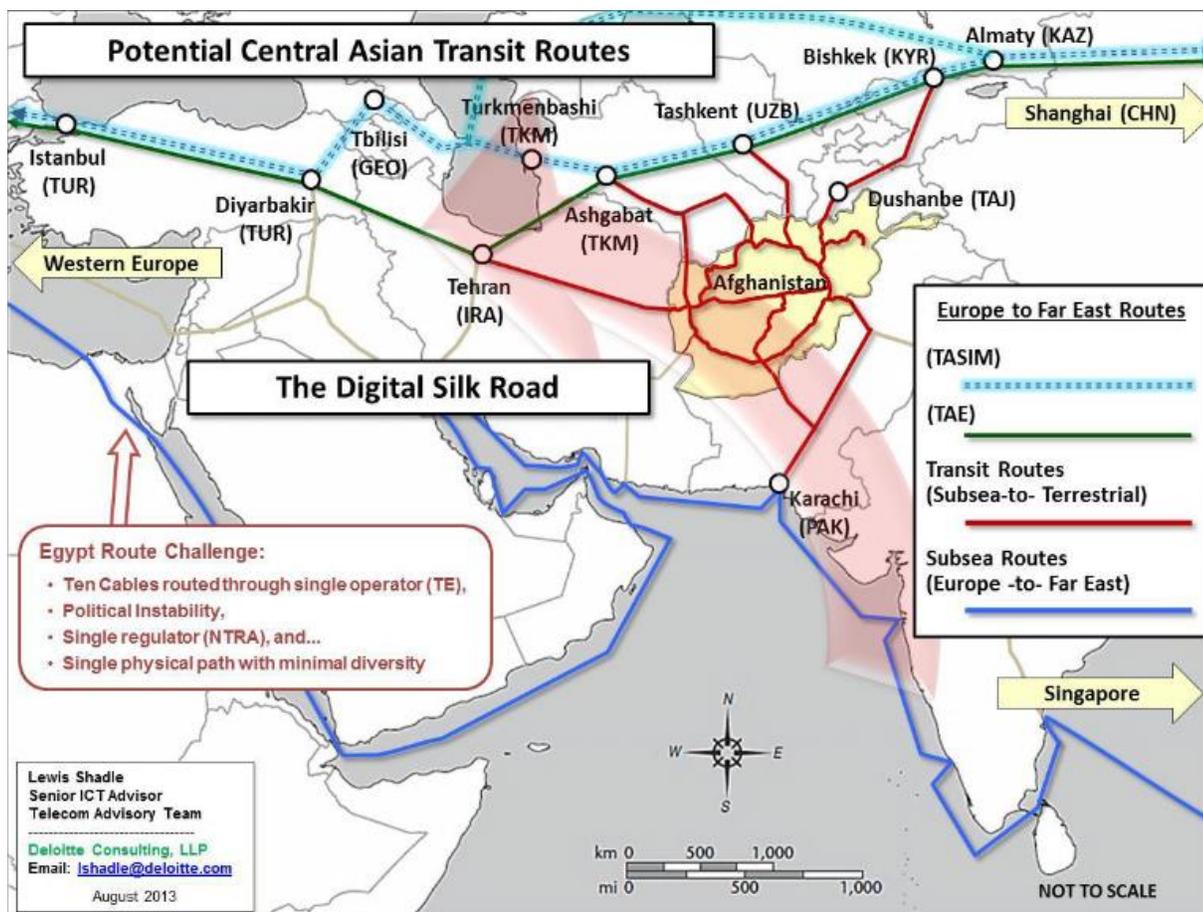
Discussion

Open Access is “the possibility for third parties to use an existing network infrastructure”, according to the Best Practice Guidelines for Enabling Open Access, adopted by the 2010 Global Symposium for Regulators. Other definitions exist, each implying a different extent of openness. But there seems to be agreement that open access applies to infrastructure, and means that all suppliers are able to obtain access to network facilities on equal terms. The regulatory model and the conditions of access will vary, but open access is paramount if the new digital economy is not to fall back into monopoly.

There is an emerging regulatory consensus that there should be open access to national broadband infrastructure. Even in highly developed markets, the scale and scope of investment required for broadband networks tends to create a dominant provider. Fiber access pipes represent an essential utility, and – except in densely populated areas – duplicating that infrastructure is neither commercially nor economically viable. A monopoly on infrastructure, particularly in rural areas and developing countries, seems sensible. Regulatory action for broadband networks should therefore focus on ensuring access on fair, reasonable and non-discriminatory terms, rather than on encouraging infrastructure competition.

A detailed study was conducted in 2014 that analyzed the opportunity for attracting international transit traffic over Afghanistan’s fiber optic network, the value it could represent for the Government of Afghanistan, the impact it could have on Afghanistan, and measures required to realize the opportunity. Areas of this study were updated to reflect current market assumptions. Overall findings indicated that there is a market for carrying significant traffic from Europe to Asia through Afghanistan. The particular geographic conditions of Afghanistan are very attractive for the establishment of transit routes for Internet access via fiber optic networks. Figure 1 shows the potential for Afghanistan acting as a hub for Central Asia communications. The possibility of establishing an additional route via the Northeast province of Badakhshan (not shown in the map) is also presently being explored.

Figure 1 - Potential Central Asia Transit Routes through Afghanistan

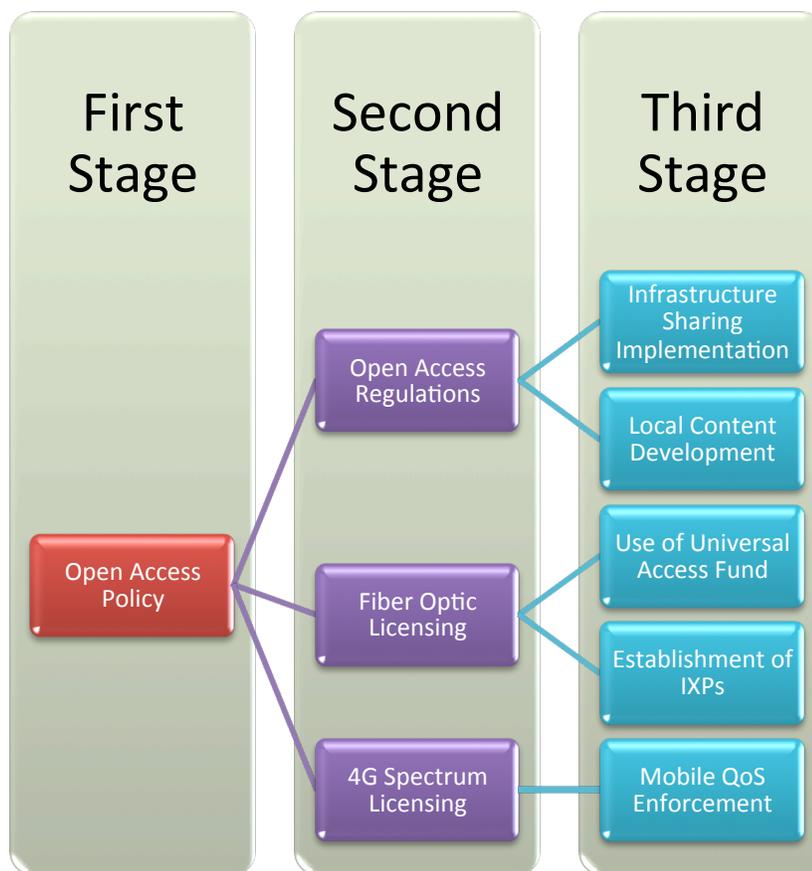


Open Access Policy was enacted in Afghanistan on September 27, 2016 via Ministerial Decree, with the following objectives:

- Facilitate investment and growth in the ICT sector;
- Encourage provision of broadband services to underserved areas;
- Provide for free and fair competition in the fiber optic and broadband markets;
- Provide Open Access to basic active and basic passive infrastructures in a transparent manner and without discrimination;
- Enable private companies, public entities, or partnerships between the two to build, own, and operate fiber optic and broadband infrastructure;
- Enable new entrants into the market;
- Open international gateways and internet exchange points (IXPs) to private competition, price negotiation, and operation by private and public sector actors;
- Create an ICT sector free of monopolies and cartels; and
- Provide affordable and reliable broadband access to the entire Afghan population.

Implementation of Open Access policy relies almost entirely on regulatory measures that range from issuance of regulations to licensing of new fiber optic and broadband licenses. However, the implementation does not stop there, because other challenges remain such as being able to provide a level-playing field to all operators and attraction of investors to the Afghan market. The truth is: implementation of Open Access policy by the regulator does require a multipronged approach. Figure 2 shows a proposed implementation scheme by stages.

Figure 2 - Open Access Policy Implementation in Afghanistan



The Afghanistan Telecom Regulatory Authority is still developing the activities indicated as belonging to the second stage. However, those that belong to the third stage are probably the ones that will have profound and long-lasting results as far as increasing Internet usage among the population. Reaching the third stage, though, will probably require an active cooperation between the operators, civil society and the regulator. As indicated before, conditions in Afghanistan are not easily replicated in other parts of the world and the application of methods that might seem to work in more developed countries should be closely evaluated before implementing them. There are simply no panacea solutions for the case of Afghanistan.

Open access is especially important where broadband and next-generation access rollout is supported by public funding, as it is in the case of Afghanistan with the universal access fund called Telecommunications Development Fund (TDF). In such circumstances, mandated open access can promote network investment, prevent the uneconomic duplication of facilities, and strengthen competition.

Considering that most of the broadband access in Afghanistan is realized via mobile connections, ATRA is accelerating the licensing of 4G frequency bands. After refarming, the total additional available 4G spectrum would be 540MHz (350MHz FDD and 190MHz TDD), far more than the total mobile spectrum that has been assigned in the last 10 years.

The Way Forward

At the present development stage of Internet connectivity in Afghanistan, regulatory approaches need to be flexible enough to respond to market needs, assessing at the same time the needs of the Internet users. ATRA recognized the need to work in all 3 sub-dimensions of coverage, performance and affordability in order to promote connectivity, as indicated in Table 1.

Table 1 - Regulatory Measures to Increase Connectivity

Level	Sub-Dimension	Coverage	Performance	Affordability
International		Promote cross-border fiber networks; Lift barriers for international investment	Deployment of international Exchange Points (IXPs)	Promote use of Cloud services; Promote regional roaming
National		Foster multi-infrastructure deployment; Enable White Spaces spectrum	Enforce data-driven regulation; Migrate to IPv6 in preparation for Internet of Things	Promote infrastructure sharing; Competitive Telco market; Facilitate MVNOs entrance
Local		Work with local governments to lift restrictions on infrastructure	Migrate copper to fiber	Multiplayer infrastructure competition

ATRA is currently working in most of the sub-dimensions at all levels, but much still remains to be done. It should be considered that a relatively young regulator in an environment such as the one described in the background faces many unforeseen situations that require a quick capacity for reaction. This is where the textbook solutions do not suffice and knowledge of the local market characteristics and players becomes a huge asset.

Most of the activities of the third stage in Figure 2 are still to be developed and ATRA is in the process of working with the service providers in order to gradually implement them. A holistic view is required to both fulfill the Internet user’s needs but at the same time promoting sustainability through participation of all stakeholders. The public consultation process regarding ATRA’s key regulatory decisions have shown a proven record of success in promoting transparency and stakeholder participation. ATRA believes that the Open Forum sessions will provide an excellent opportunity for the discussion of the degree of success of the regulatory measures already being implemented in Afghanistan, but at the same time they will set the stage for a fruitful debate on future regulatory actions to be implemented.