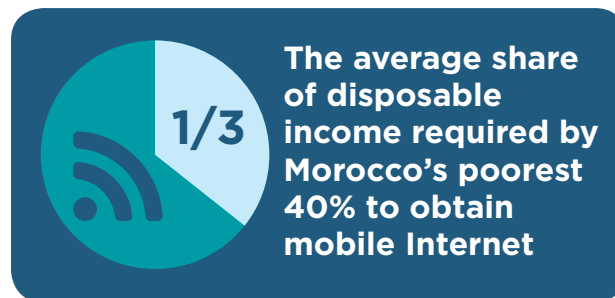


## Key Pathways to High-Speed Internet in the Middle East and North Africa

Spurring Competition and Building New Networks

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Most countries of the Middle East and North Africa (MENA) region are falling behind in their quest to develop high-speed Internet for rapid socioeconomic development. Despite young adults' rising use of social networking tools and solid progress in a few countries, most of the region's Internet remains hobbled by monopolized, inadequate infrastructure; weak investment incentives; and high costs. High-speed (broadband) Internet can drive economic and social transformations. To realize that potential, a recent World Bank study finds that MENA countries must pursue a three-pronged approach: (1) Reduce costs by fully liberalizing access to the existing Internet infrastructure. (2) Support the resulting competition with independent national regulators working within a harmonized regional framework of regulation. (3) Promote investments in new fiber-optic networks and other ultrafast broadband infrastructure (including Long-Term Evolution or LTE) alongside existing technologies.<sup>1</sup> With these measures, plus aggressive strategies for sharing public works infrastructure and subsidies for rural access, MENA can leapfrog its current information and communication bottlenecks.



### Bottled-Up Broadband

Three sets of factors are blocking the development of broadband service in the MENA region: (1) a lack of competition, (2) a fragmented regional market, and (3) a lack of incentives to both fully employ existing networks and build new ones that allow faster service. The consequence is generally slow Internet service with patchy coverage, high prices, and consequently low penetration of usage.

Competition to build networks (facilities-based competition) has been the decisive force in countries with advanced telecommunications markets. Thus, developing economies with competition in mobile Internet facilities and service have quickly reached usage levels similar to those of the advanced economies. Besides triggering private investment, competition boosts quality and lowers prices. Indeed, the most competitive mobile broadband markets in the MENA region have the lowest prices. Nonetheless, in most MENA countries, one-half or less of the population uses mobile broadband, and less than one-fourth uses wired (fixed) broadband.

<sup>1</sup> The region encompasses 19 countries: Algeria, Bahrain, Egypt, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Palestine (West Bank and Gaza Strip), Qatar, Saudi Arabia, Syria, Tunisia, United Arab Emirates, and Yemen. The World Bank is conducting similar reviews for two other regions in the world (South Asia, and Central and Eastern Europe).

## Competing in a Unified Market

The region overall has lagged in opening up its telecommunications markets. In contrast, the European Union accomplished that in 1998, and newer members of the EU have had to comply. Lithuania, for example, now has more than 100 facilities-based Internet service providers (ISPs). In contrast, in the MENA region, only Bahrain and Jordan have implemented full liberalization, and most countries do not allow their ISPs to be facilities-based (to reach the final client with their own infrastructure). Other reforms must accompany the removal of barriers to entry: Independent national regulatory authorities must be strengthened, or established where they do not exist; and countries should collaborate on creating a harmonized regulatory framework that would allow investors to consider the MENA region as a single market.

## Leapfrogging Existing Networks

These regulatory reforms are critical for a well-functioning telecommunications market. But in the MENA countries in the emerging and developing phase of broadband development, regulatory liberalization will support a second core objective—promoting investment in new infrastructure.

These countries have a great opportunity to quickly deploy new broadband Internet networks, leapfrogging their legacy infrastructure with fiber-optic and other high-speed technologies. Romania, Latvia, and Lithuania are examples of this breakthrough phenomenon. They inherited decrepit, obsolete networks from the Soviet era. But in just a few years under market liberalization, they have surpassed the western European countries in some performance indicators, including deployment of high-speed broadband Internet. Today, for example, the ultra-fast “fiber to the home” technology reaches more households in Lithuania than in Germany.

## Bringing in Fiber

In many instances, fiber-optic technology will be indispensable to widening high-speed Internet access, as it is most effective for aggregating increasing data traffic and thereby reducing average costs. Without it, broadband services are unlikely to be viable outside of major cities.

Broadband plans in MENA countries generally do not take a systematic approach to reducing the costs of infrastructure deployment. Deployment strategies involving utilities, railways, and public works projects—for example, laying fiber cables alongside oil pipelines and railways, on power lines, and while digging new roads—can significantly reduce costs and accelerate rollout, as can work in conjunction with real estate development. These options introduce a much-needed alternative or complement to the infrastructure provided by incumbent telecom operators.

## Mixing Fixed and Mobile Connections

Markets for mobile broadband are much more competitive than those for fixed broadband. Hence, mobile phone users constitute the majority of broadband customers in the MENA region, and mobile access is generally considered to promise the quickest expansion of service. Nonetheless, even by 2017, data traffic generated from mobile networks is expected to represent only about one-fourth of the traffic from fixed broadband connections.

A significant increase in rural access can be expected by simply letting market forces develop, albeit with coverage obligations for operators and subsidies for broadband development and use.

With the liberalization of competition and innovative strategies for adding infrastructure, fixed and mobile broadband technologies will ultimately complement each other, with the latter more dominant in rural areas.

► For more information on this topic:  
<http://hdl.handle.net/10986/16680>

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