

# Successfully Deploying Mobile and Wireless Broadband Services in the Arab World



In cooperation with



The Broadband landscape has changed in many developed markets over the last two years. The Arab Advisors Group and FirstPartner believe that change provides a major opportunity in the Arab World. A new category – Mobile Broadband – has seen significant customer uptake in major European markets and has come of age. WiMAX could offer similar opportunities to a number of recent entrants who have been granted spectrum allocations in Arab markets and are launching or trialling services.



Mobile Broadband is the term being adopted by the cellular industry to describe High Speed PC Internet access services over cellular networks. In many markets Mobile Broadband is offering higher bandwidth and lower prices than DSL based services. As a result (and aided by aggressive marketing) mobile operators are not only able to provide high speed services to business users on the move but are also capturing consumers and small business and challenging the market share of fixed broadband ISPs.

Arab countries have comparatively low levels of Internet penetration. This is driven by a combination of factors including fixed infrastructure limitations, relatively high prices and low PC penetration. Mobile penetration is however high and operators have deployed or are deploying HSPA). Others are also deploying WiMAX. Mobile Broadband products have been introduced by a number of mobile operators including Etisalat, Du, Saudi Telecom Company (Al Jawal) and Vodafone. Regulators are also opening markets to increased competition by allocating WiMAX spectrum for fixed voice and data services to new entrants such as Mena Telecom, Zain and Orascom Telecom WiMAX. Could these products kick start the Broadband markets in these territories? If so what should operators consider to ensure Wireless Broadband products are successful in the market?

This joint paper between Arab Advisors Group and FirstPartner draws on our experience from Europe and highlights some of the key lessons that will also be important for Arab operators and service providers seeking to deliver successful services.

## Wireless Broadband and Mobile Broadband

Wireless Broadband and Mobile Broadband both describe the provision of Broadband Internet services to computers using wireless technologies. Wireless Broadband normally refers to a fixed or nomadic service (typically now using WiMAX technology). The Nomadic capability allows a user to access the data service wherever they are within WiMAX coverage but doesn't support true mobility. Mobile Broadband describes Broadband services delivered via HSPA (High Speed Packet Access, sometimes referred to as 3.5G) technologies. Mobile Broadband is truly mobile, allowing connection while moving, and typically offers download speeds of up to 3.2MBit/sec or 7.6Mbit/s. Commercial services and connectivity devices are currently more widely available than for WiMAX. Of course Mobile Internet is also available on an increasing number of mobile handsets meaning that customers in markets with low PC penetration can get access to Internet services without the need for a PC.

## The Emergence of Mobile Broadband

Mobile Broadband has been the surprise success story of Mobile data over the last 2 years, successfully addressing consumer and small business markets and establishing itself as a new product category in its own right. It has flourished in highly competitive mobile markets that also have well established and highly penetrated fixed broadband infrastructure, delivering both a convenient solution for high speed connectivity on the move and a viable DSL or Fibre replacement service for mobile only customers.

This growth has been driven by four factors working together:

- The widespread deployment of HSPA technology that allows peak speeds that are comparable to DSL based broadband
- Attractive and convenient Mobile Broadband devices and connectivity
- High profile marketing and promotional campaigns
- High levels of competition between operators that has driven increasingly competitive, often flat rate tariffs.

In many western European markets, including the UK, Germany and Spain, Mobile Broadband packages can be as attractive as fixed DSL packages, especially for less frequent users. . Carriers such as Three and T-Mobile have led the market with low cost flat rate and pay as you use tariffs.

## Wireless Broadband

Wireless Broadband has established itself mainly in developing markets where fixed infrastructure is limited. WiMAX currently lags cellular technologies in terms of mobility but could offer similar capabilities for service providers as low cost consumer devices emerge. Licenses have currently been granted for basic data and voice services but media rich services could follow.

## Know Your Customer

To successfully deploy a Mobile or Wireless Broadband solution it is important to understand and profile your target customer base. This should guide your decisions on the choice of technology, network deployment, pricing, devices and packages, marketing and sales channel partnering. It is also critical to development of a viable business case. Key factors include:

- Geographic location,

- Degree of mobility,
- Current PC and internet penetration and usage patterns,
- Desired PC and internet usage patterns,
- Mobile phone adoption and usage and
- Price sensitivity.

The opportunity that Mobile Broadband opens may mean reviewing and extending any existing customer Segmentation and profiling to ensure that packages can be offered that will suit both the international business traveller requiring affordable connectivity anywhere in the world or the small business or home customer who cannot currently get affordable broadband access.

### **Choosing the Right Technology**

Both Wireless and Mobile Broadband are dependent on network infrastructure investment. The choice to deploy Cellular (3G, HSPA, LTE or CDMA WLL) or WiMAX based technology is to a large extent governed by existing infrastructure investment, spectrum availability and regulatory constraints. Some operators are in a position to offer both and are trialling both. Hybrid solutions utilising Wi-Fi or 3G Femtocells with DSL, Fibre or WiMAX backhaul should also be considered especially in geographical areas where there is existing fixed or wireless infrastructure.

A successful Mobile Broadband service can have unwelcome load and cost impacts on the network. Flat rate tariffs make the service attractive to customers, unrestricted data usage, such as downloading and uploading of film and music content will create network loading issues that will impair performance and increase operator costs. Careful network planning and correct design of end customer packages and pricing are essential to ensure a financially viable service.

### **Making Connectivity Easy**

The customer proposition includes the way the customer connects, the data package that is offered, the pricing and level of customer service offered. One of the most important aspects is however the way that the service is marketed and promoted – especially where it is addressing currently unconnected customers.

Mobile and Wireless Broadband connectivity can be delivered through:

1. The USB modem. This is a small, plug and play device of similar form factor to a USB flash memory drive housing the cellular modem and SIM Card. The first dual technology modem supporting both 3G and WiMAX was deployed in the US by Sprint in early 2009. USB modems can be branded by the operator or service provider and allow the consumer to connect using any PC, Laptop or Netbook computer. The advantage of the USB modem is its convenience, familiar form factor and the ability of the user to share it amongst multiple computers or users if required.
2. The Mobile Phone. Mobile Phones with 3G or HSPA connectivity may be used as a Mobile Broadband Modem. The advantage of the using the mobile phone is that the customer does not need to be provided with a separate device – however the user experience varies between phones and can be complex and confusing.
3. Laptop with Built In Modem. Over the last two or three years operators have been working with leading computer vendors to offer laptop computers with a high speed cellular modem and SIM card built in. This offers a convenient solution for the user

with no extra devices to carry. Intel launched a combined Wi-Fi and WiMAX chipset for Centrino 2 in July 2008, supporting laptops with embedded WiMAX capabilities for Nomadic working.

4. Fixed WiMAX Customer Premises Equipment (CPE). The standard way of delivering fixed data and voice services to a building. The CPE includes the WiMAX antenna and terminating equipment.
5. 3G Connected Router. Offered in developed markets as a niche product for mobile workgroups, the Mobile Broadband router provides offers connectivity for multiple computers via a standard Wi-Fi local network and a Mobile Broadband connection.

Wireless Broadband currently requires a base station deployed at the customer's building however with commercial deployment of mobile WiMAX and availability of low cost chipsets, similar connectivity options to Mobile Broadband will emerge over the next 2 or 3 years.

Choice and presentation of connectivity device is important to establishing a successful proposition. To deploy effectively, the operator or service provider needs to take account of:

- Device costs, the need for subsidisation and the impact on customer uptake and the business case
- Simplicity of user experience
- Usage patterns of end users
- How the service is to be marketed

USB Modems provide a simple, flexible consumer device that if marketed carefully provides the basis for a strong retail package, and promotional campaign. Component costs are still relatively high however and this has implications for pricing strategy, especially of the device is to be subsidised. Use of the mobile phone overcomes this potential cost issue but has a number of deployment complications around connectivity with the computer and driver software and it is important that the customer purchases the right data tariff if they are going to use their phone to connect their computer. Built-in Laptops deliver the simplest customer experience and also provide new distribution and co marketing opportunities with PC vendors and retailers. These have been launched by Vodafone in Egypt in conjunction with leading vendors including Dell, HP and Lenovo. Perhaps the most interesting opportunity here for the Middle Eastern market is the connected Netbook. This new category of low cost ultraportable PCs provides a real opportunity to address low PC penetration with Network operators and service providers playing a key role in delivery.

In addition to choosing the right hardware the connectivity software needs to be got right. This is at the heart of the plug and play user experience, providing not just connectivity but also information on and control over usage.

It is likely that an operator or service will offer more than one connectivity solution; the challenge is in successfully matching the choice to the needs of different customer groups.

### **Pricing to Drive Demand *and* Deliver the Business Case**

Flat rate and unmetered mobile data pricing has been one of the main factors that has stimulated the massive growth seen in Mobile Broadband adoption in Europe. It has allowed the product to move beyond high value business customers and to compete as an attractive alternative to fixed broadband offerings for small businesses and consumers. The competitive situation in several Middle Eastern Countries is slightly different. Fixed broadband prices are high and adoption is low. The challenge for Wireless Broadband is to develop tariffs that are affordable enough to drive Broadband adoption, while shaping data demand to ensure that

services are financially viable and bringing sufficient return on investment to operators deploying the infrastructure.

Bundling with other services, including mobile voice, fixed Internet and Wi-Fi access and for Cellular Operators the policy towards support of Voice over IP services should also be considered.

The emergence of Laptops and Netbooks with Mobile Broadband built in has resulted in the development of interesting bundled subsidised models in developed markets. Similar models could potentially help to drive PC and Broadband adoption in Middle Eastern Markets. They also provide interesting opportunities for co-marketing initiatives with PC vendors and sales channels, potentially increasing and operator's marketing reach and sales effectiveness.

### **Convergence and Media Services**

The development of competition means that mobile network operators and new entrants need to ensure they have a clear strategy for the longer term deployment of richer bundles of services beyond basic data and voice. This can include Fixed Mobile Convergence, Unified Communications, Video on Demand and other content services. Strategies need to address competitive differentiation, customer propositions, business models and regulatory enablers.

### **Get the Marketing Right**

Our research has shown that there are still a number of barriers to adoption of mobile data, especially associated with customer perceptions of cost, complexity and poor coverage. The most effective Mobile Broadband campaigns from operators such as Vodafone, T-Mobile and 3 (Hutchison) have addressed these barriers head on by focussing on speed, simplicity and value. Effective co-marketing is critical when it comes to Laptops or Netbooks with built in Mobile or Wireless Broadband. Here it is necessary to work closely with the PC Vendor partner to design and execute campaigns and ensure that a clear and compelling message is delivered to the customers.

### **Is there a Business Case?**

Delivery of Wireless or Mobile Broadband does have a high potential capital cost attached to it due to the network and marketing investment required but the returns are potentially high, especially when considering the role it can play in opening up broadband markets in the Middle East.

If operators and service providers work through a structured proposition development process, taking full account of the issues outlined here, Wireless and Mobile Broadband can be offered competitively and profitably. It is critical to properly test the business case by modelling pricing, demand, network loading, support and marketing costs to ensure that the packages being designed will deliver the required return.