

MOBILY/ARUBA CELLULAR-TO-WI-FI OFFLOAD



OVERVIEW

Mobily (Arabic: موبيلي) is the trade name of Saudi Arabia's second Telecommunications company, Etihad-Etisalat consortium (Arabic: اتصالات اداختا). The company, as the winning bidder for Saudi Arabia's second GSM licence, provides mobile telecom services nationwide and is the second largest mobile operator in Saudi Arabia. Mobily's strategy has always been to pursue broadband services. The company has pioneered cellular broadband technology in the Middle East, launching 3.5G services in June 2006 and LTE services in September 2011.

Mobily has recently begun offering a new broadband service using Wi-Fi. Mobily has around 350-400 public hotspots with each Hotspot comprising of multiple Wi-Fi Access Points covering multiple business verticals including cafes, hotels, hospitals, outdoor, and some challenging venues such as stadiums and Holy Hajj areas.

In 2010 Mobily began to see a massive increase in data usage, fuelled by offering unlimited data subscriptions. Moreover, many Mobily subscribers have multiple broadband subscriptions across different technologies, eg WiMAX/ 3G/LTE. In July, 2011 Mobily launched the first TD-LTE commercial network in the world

Against this backdrop of increasing data usage, Mobily sees Wi-Fi as an efficient way to reduce the cellular capex investment in broadband infrastructure needed to match this spike in data usage. The operator is pursuing a pioneering cellular-to-Wi-Fi offload strategy to efficiently manage cellular and mobile traffic in terms of opex/ capex and offering the best mobile broadband experience possible. Mobily is working with Wi-Fi vendor Aruba Networks to implement its cellular-to-Wi-Fi offload strategy.

BUSINESS MODEL

There are two main strands to Mobily's Wi-Fi Hotspot strategy:

1. A hotspot portal based Wi-Fi virtual network with multiple service monetization models for both Mobily and non Mobily subscribers.
2. A cellular-to-Wi-Fi offloading virtual network, offering seamless and secure user experience with the use of EAP-SIM protocol and WISPr clients. This virtual network targets smart phones and smart pads.

KEY POINTS:

- Mobily sees Wi-Fi as an efficient way to reduce cellular capex requirements and improve quality of experience. The operator is pursuing a pioneering cellular-to-Wi-Fi offload strategy.
- Mobily sees Wi-Fi as the next big broadband communication service as the technology is becoming more mature.
- Mobily believes that Wi-Fi can offer a carrier grade broadband level of service.
- Mobily is undertaking a Hotspot 2.0 trial with Aruba Networks and aims to be the first operator in the Middle East to launch Hotspot 2.0-based services. Hotspot 2.0 opens the door for inbound roamers to connect seamlessly and securely to the Mobily Wi-Fi network while their usage is being charged back to their home operator.

Mobily will capitalize on a packaging approach that will allow its subscribers to connect to any of the available broadband network services on site, or to choose between multiple available ones, without being driven into complex cost choices. The offload services will be soft-launched by end-Sept and hard-launched 1Q13.

Mobily has completed an embedded configuration for RIM BlackBerry devices and Apple iPhone/iPad devices that was seamlessly pushed. The configuration challenge was mainly the Android based devices that did not support EAP-SIM. The solution was to use WISPr clients that were uploaded to Google Play market.

When to offload from cellular-to- Wi-Fi is a key consideration facing Mobily as it seeks to best implement its cellular-to-Wi-Fi offload strategy. The operator is working on this using different criteria, namely: location and number of users on the cell site. Mobily will use a radio planning solution to monitor the quality of the connection on the devices to ensure users are receive the best quality connection.



Mobily is currently building this infrastructure using the managed 3G offload architecture, with the existing 3G backend systems being reused for authentication and policy enforcement, while the user traffic is being dropped off to the Internet over a parallel dedicated Internet core. This architecture is designed to ensure the fastest and easiest deployment method, hence the fastest and least costly relief to its subscribers, and at the same time will increase reliability for those mobile users accessing 3G or Wi-Fi in case there is an outage of one of the networks.

RESULTS

Mobily has only recently soft launched the cellular-to-Wi-Fi offload service for smartphone users. Initial results have been very encouraging with 18,000 unique users on the first day of the soft service launch with 31GB of data consumed.

OUTLOOK

Mobily intends to “offload” at least 20% of current mobile broadband traffic onto Wi-Fi networks and is designing the Wi-Fi network to meet this key performance objective. Mobily is looking to put in place robust and accurate KPIs for the cellular-to-Wi-Fi offload service.

The following are two key KPIs that are being examined:

- Cellular-to-Wi-Fi offload rate.
- Average volume usage per month of Wi-Fi vs. cellular.

As Mobily wants to differentiate by offering the best mobile broadband experience possible, these two common KPIs are by itself not considered sufficient to measure the performance of the offload, and therefore KPIs related to the measurement of the user experience will be adopted as well.

Mobily will test with Hotspot 2.0 (WFA Passpoint) devices as it becomes more widely available in equipment.

CONCLUSIONS

- Mobily is pioneering cellular-to-Wi-Fi offload to offer the best mobile broadband experience while at the same time optimising opex and capex.
- End-users can be expected to perceive a tangible end-user benefit as the cellular-to-Wi-Fi offload service is rolled out.
- After deployment, Mobily is looking to optimise performance of the offload solution to further improve performance, something which could enable to further differentiate from rivals’ mobile broadband services.
- By integrating Wi-Fi so tightly into its mobile broadband offering, Mobily will need to ensure it offers as widespread Wi-Fi footprint as possible, including through partnerships.
- As Mobily end users become accustomed to Wi-Fi in their home market the operator should develop Wi-Fi roaming agreements to ensure users experience comparable access while travelling.



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