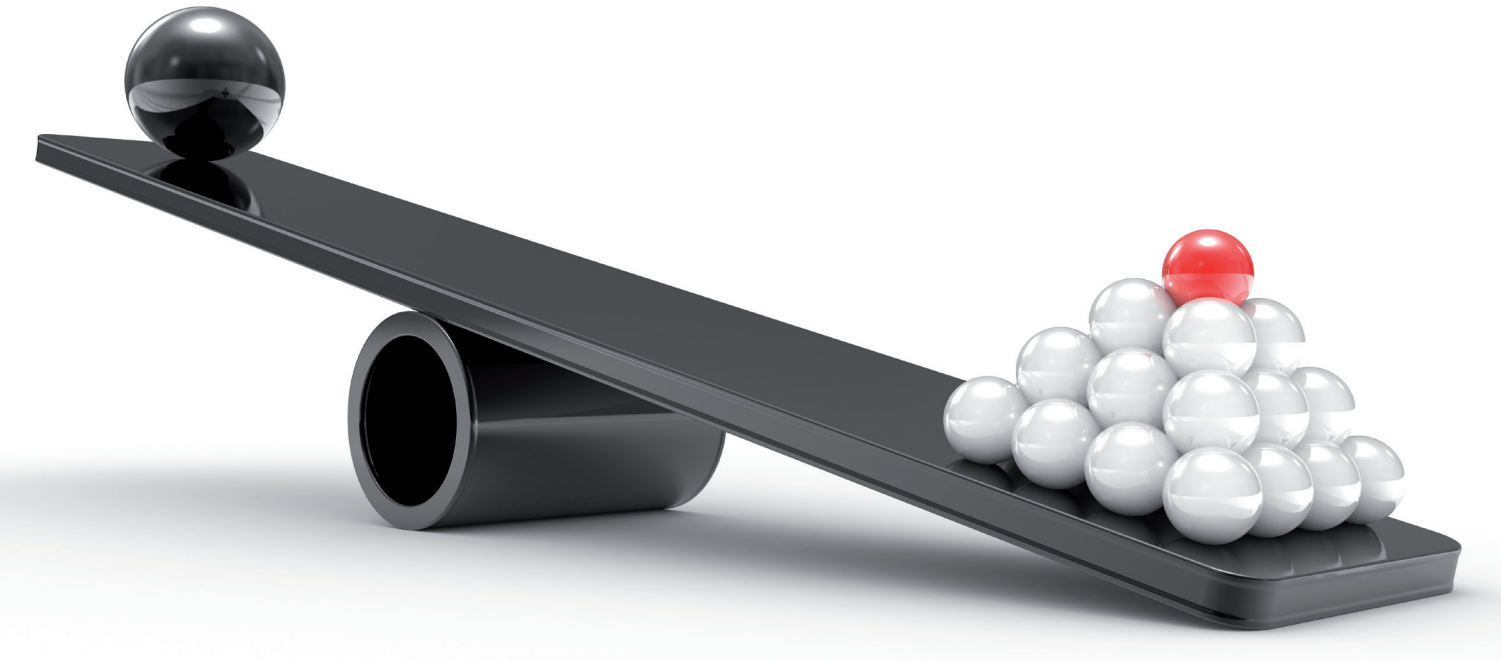


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## Leadership Article No. 3

3Billion



By Adnan Yaqub, Chief Technical Advisor, Orga Systems, Oktober 2008

An often asked question is, "What are the current challenges faced by the mobile telecoms industry and what opportunities exist in light of these challenges?" In April 2008 the GSMA announced that the total connections to GSM mobile communications networks had passed the three billion mark globally. Based on this number, three billion, I would like to list what I see to be three major challenges and opportunities currently faced by network operators.

### How to Make Money on the Fourth Screen

Three billion connections mean three billion handsets. This is the fourth screen (after cinema, TV and the PC screen) and the platform for the seventh mass media – mobile communications - (after print, recordings, radio, cinema, TV and the internet). This fourth screen has several unique characteristics. It is personal, always on and within arm's reach. In addition to consumption, it allows for the creation of content at the source of inspiration. Its use can be tracked down to the individual consumer and it has a built in payment channel. A comparison between the second, third and fourth screen is given in the following table.

Characteristic	TV - Second Screen	PC - Third Screen	Mobile handset - Forth Screen
Number of devices world-wide	1.6 billion	1 billion	3 billion
Personal	No	No	Yes
Hours in use per day	4 hours	2 hours	24 hours
Content production	No	Yes	Yes
Usage tracking	1%	10%	90%
Built in payment channel	No	No	Yes

The big challenge is how to continue to make money on this fourth screen.

The opportunity here is not in voice. Voice is becoming a commodity and is less and less under the control of the network operator. At one industry gathering, it was estimated that in ten years only about 50% of all voice traffic will be under network operator control. The remaining traffic will be either routed through private voice apps like Skype or embedded as an add-on in applications and games. The money is not going to be in voice.

Neither is the opportunity in data. At the recent CeBIT it was pointed out by one large network operator group that data revenues are being decoupled from traffic volumes in the market. Thus as traffic continues to rise, and with it cost, the revenues are remaining flat or even falling due to the abundance of flat rate plans and competition in the market. The introduction of services like iPlayer in the UK market certainly aggravates the situation. The money is not going to be in piping data.

The opportunity lies in leveraging key operator assets along with information only the network operators possess. These key assets are billing, bandwidth, messaging and call / conferencing. The key information network operators have includes who is the customer, who does he know, where is he, is he available and how much can he pay. Third parties such as mashup developers, governments, retailers, enterprises, service and repair companies, content owners and brand advertisers are interested in these services and information.

The network operators can seize this opportunity by providing these third party partners with identity, authentication, billing, collections, location and presence services along with efficient distribution of voice and data across a wide range of bearers and devices. To do this, interfaces to service delivery platforms offering the required services along with interfaces to distribution platforms need to be deployed by the network operator. However these third parties own the business relationship with the end user. Here they are asking the network operator not to interfere.

## How to Reach the Bottom of the Pyramid

Three billion mobile subscribers also mean that there are three billion people without mobile services. The challenge here is how to reach the bottom of the pyramid. This market is largely rural, agricultural, isolated and illiterate. Income is between one USD and five USD per day. Goods are purchased in small amounts, usually just enough to last one or two days. Communication patterns are mostly local, with less than 1% of calls being international.

There is an opportunity in this challenge. This market is large and can be lucrative. For more than a billion people per capita income is less than 1 USD per day. The 20 biggest emerging economies include more than 700 million such households, with a total annual income estimated at some 1.7 trillion USD. Providing mobile services to this market also helps improve the standard of living. The poor see mobile services as a way to save money. A call to a nearby market to inquire about current crop prices can help a farmer determine the correct time to sell a harvest.

To reach the bottom of the pyramid, however, requires special efforts. Network operators can look to fast moving consumer goods manufacturers for guidance on how to do this. These manufactures have focused on the four As - availability, affordability, acceptability and awareness - to reach these markets.

A focus on availability considers different distribution technologies and channels as well as the identification of inefficiencies and rejection points. It is possible the most difficult hurdle to overcome due to the rural nature of the market and the poor infrastructure usually found there. An example of how availability can be increased is the introduction of electronic top-up technology, such as the Orga Systems Virtual Voucher System.

To increase affordability, operators should take into account sachets, community purchasing schemes, financing and alternative product configurations. Micro top-ups for example are important to have, since in this market consumers are used to buying a little product each day. Payment schemes taking into account agricultural cycles can also be considered.

Acceptability can be increased by adapting products to local language, taste and culture. For example, a handset with a radio maybe be more accepted than a handset with a camera. Also careful considerations should be made regarding power requirements.

Finally awareness is achieved by marketing at culturally relevant events and the use of a local direct sales force. For instance local street performers and wandering entertainers can be hired to build "product placement" into their performances.

## How to Get Ahead of the Field

Three billion mobile subscribers mean a lot of energy and a lot of waste. For instance Intel predicts that around 2016 the required energy to run networks world-wide based on 2004 processor technology will exceed the available global power grid.

The challenge here is how to make the mobile telecommunications market sustainable. Network operators meeting this challenge have the opportunity to reduce costs, improve the brand image and create a sustainable industry, and this is done by reducing, reusing and recycling.

Reductions can be made in energy consumption (especially electricity) and packaging. Introducing technologies such as electronic top-up can reduce waste due to scratch card production and distribution. Partnering with companies which refurbish mobile handsets can increase reuse. Recycling can be promoted by offering airtime bonuses to customers turning in old equipment such as batteries or handsets.

The current size of the mobile telecommunications market presents network operators with new challenges and new opportunities. These challenges include making money on the fourth screen, serving the bottom of the pyramid, and creating an environmentally sustainable industry. Those operators rising to these challenges and seizing the opportunities shall find themselves at the head of the field.

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