

Ready to meet the African data boom demand?

Africans like their mobile phones, too. So surely the African continent will simply follow the same telecom development and usage pattern as the rest of the world, just maybe a little later? Well, not quite.

 By [David King](#) 29 Jul 2013

Africa has proven to be somewhat different when it comes to mobile telephony; just look at the unexpected speed with which cellphone usage took off as it substituted for the lack of fixed-line networks and other key infrastructure.

Africa has always had myriad challenges for mobile operators and other telecom companies to overcome: lack of or substandard infrastructure, political uncertainty, regulatory issues, challenging environments, vast and sparsely populated geographical areas to cover, unreliable energy supplies and poorer target groups.

These challenges have been overcome with ingenuity and perseverance. Prepaid cards in small denominations sold in numerous mobile booths have given consumers with little money access to mobile telephony. Off-grid base stations are increasingly using green power solutions almost completely replacing the use of dirty and expensive diesel.

Roaming costs are often lower than in the developed world, enabling communities separated by colonial borders to communicate. M-PESA and other mobile money systems have revolutionised the way money is transferred, making it possible for almost everybody to use basic banking services.

Africa is the next market for a data boom

It is no great secret that the next big step for Africa is the "post-mobile data revolution". The penetration of data in African markets is still low, even in South Africa, and prices are still high. And even if everybody agrees that data will take off in a big way, it is difficult to predict when it will happen and how fast.

There are of course going to be a number of challenges to overcome. How can you best prepare to quickly respond to the anticipated demand without investing too much too early?

The biggest challenge is infrastructure. High quality, efficient data centres are essential. They house and power all the equipment needed for transmission of data and are both the heart and brain of any network. Traditional builds for data centres take a lot of time to plan, co-ordinate (with different suppliers) and construct.

Furthermore, challenging environments add a lot of risk to a data centre project, often resulting in delays and budget over-runs. Buildings for data centres are often not purpose built to be used as technical facilities, often with water leaks and other problems, as well as being over-dimensioned since they cannot be expanded quickly and easily.

Pre-fabricated modular data centres ideal for African networks

The solution is pre-fabricated modular data centres. They are quicker to deploy and will in most cases save

considerable time and money compared to traditional brick and mortar buildings.

The facility will always be the "right" size since its modular structure makes it easy to quickly expand in response to changing needs. More efficient power and cooling will make a pre-fabricated data centre more cost effective to run. And quality, budget and the time plan can more easily be ensured for pre-fabricated purpose built facilities, bringing predictability to the project.

A pre-fabricated solution also makes it much easier to customise the data centre for specific needs and it can be deployed anywhere. Let us take a look at a live example: Vodacom in Mozambique (a subsidiary of Vodafone) recently decided to deploy a modular data centre (the eCentre) on top of a six-storey parking garage next to its corporate headquarters in central Maputo.

The rooftop turn-key deployment is a 126 square meter open space data centre. Vodacom needed to put the facility in place quickly, efficiently, and on time. The pre-fabricated build reduced the project risk significantly because the construction work was all done in ten weeks in a clean environment (in Sweden) and the installation work needed on site was completed in only eight days, in total a fraction of what a similar local brick and mortar project would have taken.

Critical issues in Africa

Speed and predictability in challenging environments are critical issues in Africa considering it is the fastest growing mobile market in the world and the take-off for data could be right around the corner.

Pre-fabricated, modular and custom-designed data centres that can be deployed very quickly, and easily re-deployed if needed, is yet another innovative solution to an African problem (or rather African *situation*, since there is nothing problematic with fast growth).

It is a solution that will allow data centre owners - internet service providers, hosting companies, mobile operators and banks - in Africa to act quickly and confidently towards a demand for data that might be stronger than any of us expect.

ABOUT DAVID KING

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