

The transformational power of cloud in Africa

In March 2016, IBM opened its first [Cloud Data Centre](#) in South Africa, providing cloud services to enterprise clients. Just a month later, SAP announced that it was partnering with South Africa's Dimension Data to launch SAP HANA Enterprise Cloud, a cloud platform offering a range of business intelligence solutions for its growing African market.

By [Brett Parker](#) 25 Oct 2016



It's only a few years since major cloud providers were wary about investing in Africa due to concerns around connectivity and electrical supply. The fact that companies such as SAP, IBM, Oracle, Huawei and Amazon are now all enthusiastically investing in the continent is a testament to Africa's significant economic and digital progress over the last decade.

Many business and political leaders see cloud technology as having the potential to transform the African technology industry. But can it live up to the hype?

The cloud on the go

According to the International Telecommunication Union (ITU), the penetration rate for mobile broadband in Africa is 17.4% up from just 2% in 2010. If you include all mobile phones, then 38% of all sub-Saharan Africans are connected. In comparison, only 0.5% have a fixed broadband connection.

For this reason, many of the first wave of African cloud services are designed specifically for mobile phones and many of the expectations vested in cloud technologies are for the mobile cloud. Considered together, these are early signs that mobile cloud technology is starting to deliver. But it's on the ground where the impact of the cloud is being felt most profoundly.

In South Africa, for instance, community health workers are using a mobile app to register patients and upload their data to the cloud, cutting admin overheads and helping them treat more people in less time. In Nigeria, pharmacists and patients are using a cloud-based service to verify the authenticity of prescription medicines. And in Kenya, local innovators created a cloud-based market-tracking app for farmers trying to get the best prices for their goods.

The beauty of these apps is that they provide services tailored to available mobile bandwidth on relatively low-powered devices which people already own. The processing overhead is moved into the cloud, so users pay only for what they need.

This, in itself, has the potential to transform how Africa engages with information technology. But now the explosive growth of the mobile cloud is giving African technologists the impetus and demand to pull ahead of the industry and become global

leaders. For that to happen, however, the market needs to support African entrepreneurs both with funding and with a skill digital labour force.

The cloud moves inland

While mobile cloud might be the African cloud story most people are talking about, it's not the only story. In the last five years, several new undersea cables have brought fast data connections to cities in Nigeria, South Africa, Ghana, Kenya and Cameroon.

At the same time, African governments – often with Chinese support and investment – are extending their national data backbones beyond the capitals and coastal cities. In 2015, 19 African countries announced projects that will see 22,000 kilometres of new fibre cable laid in non-metropolitan areas.

The advent of fast broadband in cities such as Lagos, Nairobi, Accra, and Cape Town has already created a demand for fixed-line cloud services that is changing the way those parts of Africa work. And the immediate impact has been much the same as elsewhere in the world. Public and private sector organisations in well-connected areas have used the cloud to rationalise and save costs. The Nigerian government, for instance, saved \$70 million by moving its payroll functions to the cloud.

The cloud changing lives

For many Africans, being able to access services quickly and conveniently through the cloud is demonstrably changing their lives. In Ethiopia, for example, much of the storage and processing of government data has been moved into the cloud. As well as increased efficiency, this has allowed citizens to complete legal and tax applications online, giving them faster access to government services.

But the story in Africa is in fact much bigger than that. The first wave of cloud providers on the continent were predominantly global players such as IBM, Cisco, Oracle, Huawei and SAP – working in partnership with local providers who knew the market.

But often, for African cloud companies, this initial partnership is only the start of their story. Many are now moving beyond simply providing execution and are bringing their own products to the market. In 2015, the African sub-sea cable company SEACOM started Pamoja, a company dedicated to bringing cloud services to African businesses. In Kenya, analytics startup SuperFluid Labs is taking its cloud-service global. And in Cameroon, Koomzo offers cloud-based management systems for the country's schools.

There was a time when so-called experts would say that Africa did not have the infrastructure or market conditions to support cloud technology and the many benefits it could bring to citizens on the continent. But these misconceptions are now being dispelled and it is clear that the opposite is in fact true. We are seeing an explosion of cloud-powered developments in Africa similar to the rapid expansion of high-tech manufacturing in China 20 years ago.

African companies that partner with international players in cloud computing are fast gaining access to expertise, finance and global networks that have the potential to give them the push they need to develop technology products to meet the demands of the African market, and beyond.

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