

Africa on the cusp of M2M explosion

Machine-to-machine (M2M) technology could affect energy, agriculture, asset tracking and retail payments sectors across Africa, where it will not only improve efficiencies but also reduce costs. Thanks to the advancement of ICT on the continent, Africa is in a strong position to capitalise on forecasts that the M2M sector will [generate](#) \$40bn in global services revenue by 2019.



Kees Snijders

[M2M](#) refers to direct communication between devices, using any communications channel, including wired and wireless. Forming part of the Internet of Things (IoT), M2M enables systems to communicate with other devices anywhere in the world.

“Africa has an enviable reputation of using technologically-driven solutions to overcome many of its challenges and, while not all countries share the same priorities, there are sectors that are universally important across the continent. These are agriculture, asset tracking, retail payments and energy,” says Kees Snijders, MD of Flickswitch.

Water and agriculture management

“By implementing M2M to help with flow and pump monitoring, wastage in water can be reduced. We know too well that it has become an incredibly scarce resource on the continent. The rapid detection of leaks and careful monitoring of dam and reservoir levels mean that M2M solutions can notify relevant authorities before water levels are dangerously low.”

Of course, it goes beyond just water monitoring. M2M is also able to track game and livestock through technology, such as tracking systems and drones. This means farmers have a more real-time view of what is going on around them and where specific issues are that need to be addressed.

In South Africa, a solutions provider has developed a livestock collar incorporating GPS and GSM technology that monitors the behaviour of a group of animals and sends an alert to the farmer’s mobile phone if there is abnormal behaviour (normally associated with theft or a predator attack).

Meanwhile, in the US, a law was passed in November last year permitting companies to fly drones commercially on a case-by-case basis. This means that for the first time, agriculture drones will (legally) gather data across an entire growing season. By significantly improving the intelligence they have at their disposal, farmers will now be able to not only test their business models, but also become significantly more efficient. Given the significant water shortages in South Africa, drones could play a similarly critical role in the near future.

More than vehicle tracking

“M2M enables businesses to closely monitor goods that are in transit. Everything from the temperature at the back of the truck and its ambient conditions, to finding the optimum route, can be done using the technology. Perhaps more interesting is the fact that the traditional tracking businesses are not necessarily the ones adopting the most advanced M2M solutions.”

According to Snijders, this has created an opportunity for smaller businesses to come up with innovative use cases for M2M that can appeal to a number of vertical sectors. “The level of sophistication required in keeping up with theft and hijackings, means traditional tracking devices are no longer good enough. M2M enables providers to adapt their solutions to meet changing requirements faster and more cost-effectively

[Research](#) from MarketsandMarkets.com indicates that the fleet management market is certainly a priority for many organisations globally. Rising global concerns around the environment and an increasing need for operational efficiencies in fuel expectations means that the sector will grow from \$8bn in 2015 to \$22.53bn by 2020.

Retail usage

On the retail point of sale (POS) front, there is a lot of movement, thanks to M2M.

“As the capabilities of consumer devices improve, mobile payment solutions, such as SnapScan and M-Pesa, are driving significant growth in retail payments. Different markets are doing the things that suit their specific audiences, forcing retailers to think differently around M2M and adopt technologies in new and exciting ways. The pervasiveness of pay points is adding to this growth.”

Developing countries are in prime position to benefit from the strength of POS in the M2M world. [Brazil](#), the largest M2M market in Latin America, has already seen a compound annual growth rate of 48 percent over the last four years in M2M thanks mainly to POS terminals connected by GSM.

Energy offers significant growth

“As with agriculture and water, energy is a vital sector on the continent. Things such as smart metering and solar are certainly increasing in adoption rates but they are not pervasive yet. With energy presenting such a significant growth sector, we can expect sizeable investment to take place. Additionally, many operators are using M2M as a great way to showcase its potential in the energy sector.”

[Research](#) conducted by Ovum shows that the energy and utilities sector is one of the most important ones in the global M2M market. The consultancy projects the sector to hit \$7bn in global revenue by 2018. Given the critical nature of energy in Africa, it could well be a good one to invest in for the coming years.

Companies across Africa need to be aware that M2M is not only growing but also thriving. Decision-makers need to think outside the box and leverage advances in technologies in innovative ways to capitalise on this