

Meeting : Internet of Things

Committee : Raising awareness of IOT

Country : South Africa

Technology advancement has resulted in the creation of new paradigms such as the Internet of Things (IoT). The IoT is defined as the interconnectedness of devices or things through a path or network. The IoT is powered by Radio Frequency Identifiers (RFIDs), sensors, actuators, and the internet to enable an anytime, anyplace, with anything and anyone connection. The IoT is perceived as a major technological advancement in history, even though its enabling devices have been in existence for many years.

The IoT is predicted to change business processes by the year 2020 while 33% of South African businesses are set to invest in the IoT in the next 2 years. Businesses that will invest in the devices or things that make up IoT are expected to gain more and grow exceptionally well when compared to other businesses in that same market that are not using the IoT.

Mr. Ran van Niekerk the Managing Director of Pan African technology company Metacom says that IoT began in South Africa over a decade ago, and has been shaping the country for the last ten years even without many people noticing it, he says the influence of IoT will continue to grow greatly in the coming few years as the real impact of the technology is felt across most industries, whereas the terminology is new, South Africa has been building the technology for many years, he goes on to say that some notable activities includes building of nationwide network of sensors to connect everything among others electricity grids, traffic controls, etc. building of both public and private cloud infrastructures, industrial and commercial architectures among others.

At the beginning of 2012, The South African National Roads Agency Limited (SANRAL) introduced an e-tolling system in Gauteng highway. The e-toll system called the Open Road tolling is meant to collect tolls electronically without human intervention since there is no physical booths that have been erected on the highway, the system charges all vehicles using the highway without them slowing down or stopping. Simple overhead gantries are fitted with toll collection devices; the device has capability to recognize e-tag attached to the vehicles or the number plate as it passes through the gantries. The vehicle owners are supposed to purchase e-tags and fit in their vehicles, the e-tags can also be loaded whenever the credit is over.

South Africa seems to be getting ready for IoT compared to other countries in Africa; a number of South African corporates are responding fast to IoT projects, just earlier this month MTN business announced that it was launching an IoT platforms to support IoT applications within the continent. South Africa utility firm ESKOM implemented a utility management Application based on IoT, now people can tell where there will be black out and at what time and which municipality. This information is available online. In the year 2010, Meraka Institute of Technology, a higher learning technology institution in South Africa constructed a panel to specifically spearhead research on IoT.

In South Africa, IoT presents a huge opportunity in key sectors, but the penetration level is still much lower compared to other world regions. Uptake and development of IoT-driven solutions is still low outside of security, vehicle and asset tracking, and point of sale applications. In addition, the capacity to implement change is lacking – simple solutions, such as tracking of dustbin collection and emptying, is slow to happen because organisations battle to put in place the skills and technology processes needed. Clearly, more knowledge and awareness is needed in sectors to keep pace with opportunity – along with a sense of urgency.

The slow pace of change in South Africa is likely to change quickly in the next few years as communication capabilities are built into more and more devices, the IoT cloud grows exponentially, and disruptive solutions with better value propositions begin to emerge to oust incumbents in various sectors. Quite simply, customers want better services and cost efficiencies, and IoT-driven applications and solutions offer exactly this.

First movers are already preparing for this future, but they need to focus on more than the development of the IoT solution and the integration of IoT to existing or new processes; they need to now take a careful look at the long-term implications of making use of IoT.