

HONEYWELL AND VODACOM COOPERATE TO UTILISE NB-IOT FOR SMART UTILITY METERING IN AFRICA

The City of Matlosana proves use cases, and delivers benefits for utilising NB-IoT as a communication technology for smart water and electricity metering deployments.

“Vodacom, together with its partners is committed to accelerating the roll-out of Narrowband-Internet of Things (NB-IoT) across the African continent. Our partnership with Honeywell has proven the use cases for AMI in both water and electricity metering providing numerous benefits to utility customers.”

– Lawrence Juku, Executive Head Utilities of Vodacom South Africa

Case Study





On average 37% of South Africa’s water supply is being lost before it reaches users due to leaks. Water conservation has become a critical issue for the region.

Honeywell Driving Connected Utilities

African utilities are today looking beyond the meter. They require innovative end-to-end connected solutions that enable utility operations to run more efficiently, reliably, safely, and cost-effectively, whilst tackling the key issues of non-technical losses (NTL) due to electricity theft and non-revenue water (NRW) that has been lost before it reaches the customer.

Together, Honeywell Smart Energy, its partners Vodacom, and its customers, are redefining the way the world uses energy. Honeywell is moving forward with connected strategies across a variety of markets, and is actively transforming and delivering expanded capabilities for utility businesses.

Scope

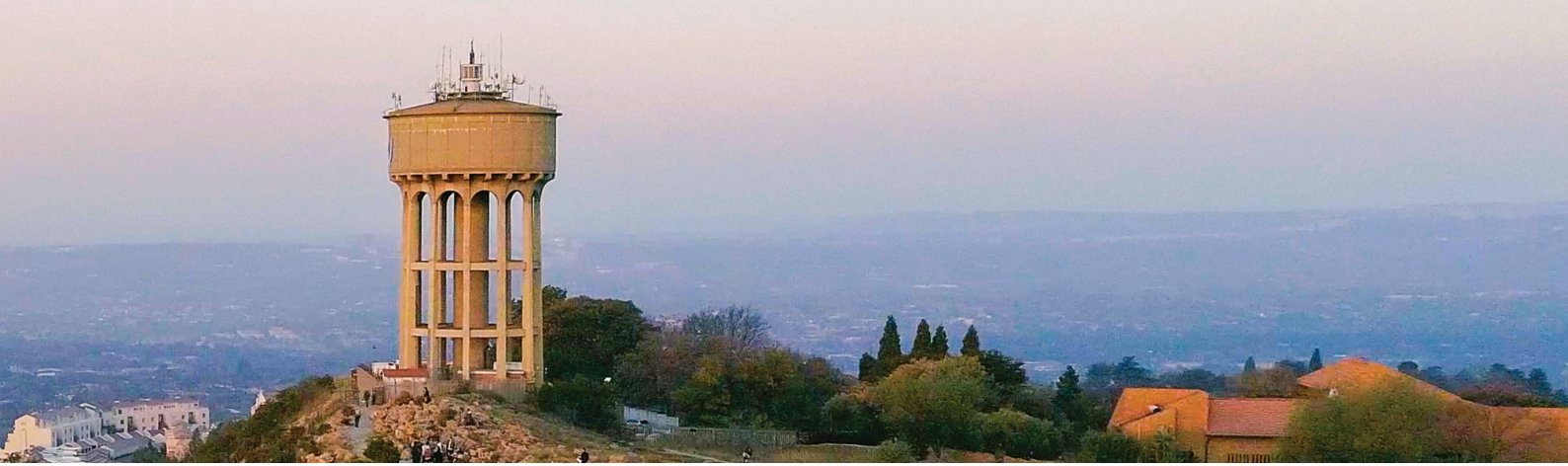
Honeywell and Vodacom are cooperating in the pilot at Matlosana Municipality, to prove use cases and underline the benefits for utilising NB-IoT for smart utility metering applications covering water and electricity metering.

For water metering, the main aim is to identify water leaks and losses, and conduct water balancing. For electricity metering, the objective is to prove bi-directional communications and provide benefits for future smart metering applications, such as pre-payment.

Technology

Utility metering requires cost-effective, reliable and robust two-way communications for advanced metering infrastructure (AMI) and automated meter reading (AMR) applications. There are emerging communication technologies that offer the potential to change the communications landscape.

One of these technologies, Narrowband-Internet of Things (NB-IoT), is a low-power Wide Area Network (LPWAN) technology developed to enable efficient communication. For water metering where there is no power source from the meter, Honeywell are providing an NB-IoT modem. This supports a long battery life and operates with a pulse output from the meter most commonly used in Africa today. This combination provides an ideal platform for use in the African region.



City of Matlosana

The City of Matlosana is a local municipality in Dr Kenneth Kaunda District Municipality, North West Province, South Africa.

The Solution

Honeywell Smart Energy's partnership with Vodacom promotes NB-IoT for water and electricity smart metering AMI solutions. Vodacom's NB-IoT infrastructure can be used in conjunction with Honeywell's smart metering technology. This modem-driven, market-leading end-to-end software solution, enables customers to implement advanced state-of-the-art analytics, revenue assurance and protection, and smart pre-payment to improve utilities' operational performance.

Conclusion

Through the pilot at the City of Matlosana Municipality, Honeywell and Vodacom have proven the use cases and the benefits for utilising NB-IoT as a communication technology for smart utility metering applications in water and electricity metering.

The solution offered has identified water leaks and enabled timely water balancing. The electricity meter communications have also been successful, and highlighted that smart pre-payment can be implemented with the use of NB-IoT.

"Vodacom working together with Honeywell are showing how the benefits of NB-IoT, long battery life of remote devices and deep signal penetration, assists in actively monitoring service delivery points that are not easily attainable with other existing communication technologies. We are specifically looking at the water use case for accurate metering of bulk meters and supply points, which are typically located in non-powered, underground chambers, to enable utility managers to get an accurate view of the water supply network by balancing the system and detecting losses in real-time." *Lawrence Juku*

Currently this project is on-going. As the project develops further, Honeywell and Vodacom will share future updates on this important initiative, which is changing the communications landscape in Africa.

For more information

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