MAXIS MALAYSIA ON SMART AGRICULTURE – HELPING PLANTATIONS BOOST PRODUCTIVITY

In Malaysia, Maxis, the country's leading communications and internet service provider, and a customer are running a trial of Mobile IoT technologies to connect environmental sensors in a plantation. The sensors capture humidity, temperature and rainfall data, which is relayed to the plantation managers via NB-IoT. They can use this data which can be accessed from a PC or smartphone app, to ascertain the environmental conditions, predict yield and identify the parameters that drive productivity.

The agricultural organisation piloting Maxis' NB-IoT-enabled solution is seeking an efficient way to obtain reliable data from plantations in remote locations. Prior to the deployment of the connected sensors, workers had to physically visit each location to get relevant information about the crops. However, with the NB-IoT connected sensors in place, information can be obtained remotely and precisely, enabling resources to be employed more effectively and efficiently.

Maxis says the extensive coverage provided by Mobile IoT networks enables customers to monitor large geographic areas, including land covered in deep foliage. The technology is also designed to ensure reliable data transmissions. "To date, these pilot projects have validated the benefits of NB-IoT in terms of wider and deep coverage in remote deployments and the NB-IoT network has proven fit for purpose for the applications tested," says Claire Featherstone, Head of Business Solutions, Enterprise, Maxis. "The results demonstrate the benefits of regular, reliable data and the customer is now considering other possible use cases related to the plantation operations as part of the same project."

Plantation in Remote Locations

MAXIS' MOBILE IoT STRATEGY

Maxis anticipates businesses operating in highly competitive markets in the Asia-Pacific region will use IoT to improve operational efficiency, obtain insights from multiple data sources, create new business lines and improve their customer experience, enabling them to stay ahead of competition.

To support selected pilot projects by enterprise clients, Maxis has deployed NB-IoT in parts of its LTE mobile network. The operator says the early adopters are primarily from the utilities and agriculture sectors, but local governments and construction companies have expressed their interest in testing the technology. Utility companies are interested in using Mobile IoT to enable smart metering, while municipalities are exploring smart lighting and smart parking solutions. Although NB-IoT is only live in the locations required for the pilots, Maxis says it is technically ready for a mass deployment. Maxis is also preparing to provide customers with complementary enablers, such as device management and data aggregation, as well as analytics tools.

In 2019, Maxis is focused on building an ecosystem in Malaysia, which will help businesses adopt NB-IoT solutions. To that end, it has established an IoT Innovation Laboratory in Kuala Lumpur that acts as a bridge between Maxis' enterprise customers and device manufacturers and solution providers: the facility serves as an experiential showcase where Maxis' enterprise customers can see demonstrations of fully tested solutions. For customers with the necessary technological capabilities, the Lab provides access to a live NB-IoT network for testing purposes, thereby reducing the time it takes to ready a new solution for commercial deployment. The applications being tested in the Lab include agriculture soil and water measurement, smart utilities (water and electric), asset tracking, and smart parking, among others.

"From our own experience, we are beginning to see the importance of building an ecosystem locally which will help in convincing businesses to take up IoT solutions," says Claire Featherstone. "That is why we set up our IoT Innovation Lab to link our enterprise customers, device manufacturers and solution providers and enable them to conduct tests before going to market with their solutions."

Maxis also plans to certify devices and solutions tested at the Lab as compatible with the Maxis network to make it easier for businesses to adopt the technology. Moreover, the operator hopes developers will leverage the Lab as an incubator for ideas in the longer term. "It is still early days for NB-IoT in Malaysia, however, over time we hope more customers will see the benefits and work with us to create solutions to cater to their business needs," notes Claire Featherstone. "This is important to help catapult the industry and to unlock the significant productivity opportunities that exist as a result of deploying IoT-based technologies."

Maxis says there are numerous commercial IoT launches taking place across the Asia-Pacific region, fuelled by the growing availability of Mobile IoT-enabled equipment, business processes and systems. "Enterprises are beginning to see Mobile IoT as a potential key component of their current and future business. Malaysia is mobilising towards the emergence of NB-IoT and, for our part, Maxis is striving to build an ecosystem that offers more innovative enterprise solutions," concludes Claire Featherstone.

Maxis IoT Lab