Internet of Things Case Studies

LEADING THE WORLD OF INNOVATION IN ASIA-PACIFIC
ENABLING SMARTER MANAGEMENT OF STAFF ATTENDANCE - GRAMEENPHONE

Operator: Grameenphone  ●  Technologies: 3G, 4G & NB-IoT  ●  Country: Bangladesh

OPTIMISING WORKFORCE UTILISATION

The effective utilisation of employees is imperative for the success of any organisation. In particular, organisations need to plan efficiently to ensure they have the right number of employees in the right locations to deliver business results. Often, employers also need to monitor attendance of contractors or employees to determine their remuneration, as well as manage authorised vacation time and performance reviews.

To meet this burgeoning demand, Grameenphone Ltd., a mobile operator in Bangladesh, partnered with Inovace Technologies to launch the Grameenphone Smart Attendance IoT solution. The cloud-based system uses fingerprint authentication to identify employees when they enter the work site. The information is uploaded via Grameenphone’s cellular network to a secure cloud server in real-time and can be integrated into the Organisation’s enterprise resource planning (ERP) system via application programming interfaces (API). Currently, the solution uses GSM connectivity, but Grameenphone plans to use the low power wide area technology NB-IoT in the future.
Grameenphone says the attendance management solution is scalable and can be tailored according to the needs and structures of any type of organisation, including banks, enterprises, government departments and schools. The cloud-based software can be configured to generate various types of reports that can be easily accessed by managers via a web portal or smartphone app, according to the operator. The entire solution is designed to be plug-and-play, removing the need for any special installation support. In the event of a device fault, Grameenphone will replace the device and then load the previous configuration and user data from the cloud backup through the GSM/NB-IoT network.

**REAL-WORLD DEPLOYMENT – MINISTRY OF PRIMARY EDUCATION IN BANGLADESH**

In Bangladesh, Grameenphone has deployed the smart attendance solution for clients in both the public and private sectors. For example, the Ministry of Primary Education, which is working on a 22 project to digitise all 65,000 primary schools in Bangladesh, has already adopted the smart attendance solution across 1,000 primary schools.

Grameenphone says the solution has enabled the Ministry to monitor the regular presence of teachers in distant locations, ensuring that the students get access to the relevant teachers and a quality education. Furthermore, easy access to the hierarchy-based attendance reports has made the decision-making process more effective and faster, according to the operator. The headmaster of a particular school can now easily track the attendance of its teachers, while the district education officer can monitor the status of all the schools within that district. Moreover, the solution uses artificial intelligence to provide a critical analysis of class performance.