

M2M solution that keeps ATMs running without a breakdown

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Withdrawing money from a bank is a quick and easy experience today, thanks to the number of ATMs that are conveniently located across the length and breadth of the towns and cities we live in. However, most of us, at some point in our lives, have been frustrated with the frequent breakdown of ATMs around our homes and offices. Is there a way to ensure that the 1,00,000 lakh plus, ATM network in the country is up and running efficiently every day of the year?

"Yes, there is" says Prabhu Ramachandran, Director - WebNMS, the Telecom Software Division of Zoho Corporation. "We have designed and developed a Machine to Machine (M2M) solution called the ATM Site Manager - a combination of hardware and software that enables assets from individual ATM centres to communicate with a centralised control system, thereby allowing assets such as lights and air-conditioners to be managed remotely."

Elaborating on the need for a solution like the ATM Site Manager, Prabhu said, banks are outsourcing ATMs to third party operators to widen their reach not just in metros but in small towns and rural areas as mandated by the Government. While Banks pay ATM operators a commission for every transaction made, the onus of setting up a nice looking ATM and see that it is up and running perfectly every day, lies solely with the ATM operator. And herein lies the problem, he said.

"ATM boxes need controlled temperature and humidity levels in order to count and dispense currency notes properly. However, operators do not have any control over what is happening in each one of their ATMs across the country, as their ATM centres are managed and monitored manually by security guards, who are in charge of switching on and off the lights and air-conditioners, ensuring that the door does not remain open for too long in order to maintain the indoor temperature, etc." Most often, careless security guards, fail to do their job, resulting in excess usage of power and loss of revenue for the operator. Then there are other problems, such as, handling break-ins by



Prabhu Ramachandran, Director - WebNMS, the Telecom Software Division of Zoho Corporation
—OMPRAKASH

crooks, he said.

The ATM Site Manager consists of a Remote Telemetry Unit - a small rectangular box equipped with a SIM card and an internet connection - which is placed inside an ATM centre.

It is an electronic switch that connects through wires or wirelessly to all the sensors in the ATM centre, such as the humidity sensor, door sensor, temperature sensor; records information from the sensors and transmits the information via internet connection to a software (WebNMS) which resides in the central control system at the customer location. The software translates the information into meaningful, actionable inputs which ATM operators can log into and access on their PCs and tablets, to see exactly what is happening in each

of their ATMs across the country. This allows for preventive maintenance in many routine service operations. Operators also receive email alerts and sms notifications in case of a break-in or malfunctioning of lights, air-conditioners, generators and other assets in the ATM centre.

"We launched ATM Site Manager in December 2012 and it is currently under trial with 3 ATM operators who have a pan-India footprint" said Prabhu. Priced at a one-time payment of ₹30,000, and 20 per cent of that amount every year thereafter, for annual maintenance and support; the solution is helping operators save on electricity costs.

"For instance, operators can now remotely ensure that during winter lights are switched on early at 5pm in Delhi, whereas, in

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Chennai it is switched on an hour later at 6pm. If someone leaves the door open for more than 2 minutes, our solution which connects to the door sensor sends out an alarm via sms and email notifications to alert the ATM operator in real time.

Similarly, inputs from vibration sensors can be monitored to send out alarms if someone is pilfering or thieving from the ATM. Our solution can shuffle between air-conditioners to operate each of them on alternate days to maintain the load, thereby, increasing its shelf life and raise an alarm if one is down too" said Prabhu.

From providing network management software solutions to Telecom Operators, Government, Defence and Telecom equipment companies, how did Prabhu and his team hit upon the idea to develop M2M solutions? "It has been a natural evolution for us, from monitoring telecom devices for the last 15 years to monitoring machines.

Just like in Telecom where there are a lot of standard protocols, similarly in machines there are standardized protocols like ₹232, ₹485, Smart-Bus, Zigbee, Wifi etc. We took our WebNMS (network management system) framework and added support for all these protocols to it, to enable M2M communication. It took 18 months of study and work to come up with our first customer demo" said Prabhu.

What next? "We are working on a second product that will help to monitor and manage the 300,000 mobile cell towers across the country, which is scheduled for launch in March" said Prabhu.