The Computerworld Honors Program

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Final Copy of Case Study

Status:
Laureate

Year:
2013

Organization Name:
Gemalto

Organization URL:
http://www.gemalto.com/

Project Name:
Conservation of the Amazon Rainforest in Brazil by Gemalto M2M Technology

Please select the category in which you are submitting your entry:
World Good

Please provide an overview of the nominated project. Describe the problem it was intended to solve, the technology or approach used, how it was innovative and any technical or other challenges that had to be overcome for successful implementation and adoption. (In 300 words or less.)

The Amazon rainforest in Brazil is vital to stabilizing the earth's environment and provide natural habitat for 30% of the world's plant and animal species. However, strong global demand for rainforest wood combined with the enormous profitability of illegal logging operations is fueling decimation of this precious global resource at an alarming rate. More than 4,000 square miles of Brazilian rainforest has been destroyed in the last two years alone with 224,000 square miles decimated since record keeping began in 1980. With current lumber prices at an eight-year high, lumber gangs unlawfully felling trees for profit have become increasingly pervasive – and with devastating environmental consequences. Traditionally, satellite and radio monitoring were effective at policing the massive Amazon rainforest, which is roughly half the size of the United States. But as sophisticated thieves abandoned clear cutting for stealthy new logging strategies that target small tracks of the most prized trees, new monitoring methods and strengthened protection were needed. IBAMA, Brazil's environmental protection agency, enlisted the

help of Cargo Tracck to develop new technology to help locate and identify thieves so they can be brought to justice. In June 2012, with international attention tuned to Brazil and the United Nations' Rio+20 Conference on Sustainable Development, Cargo Tracck and Gemalto devised and executed a successful pilot program and sting operation that demonstrated how powerful Machine-to-Machine (M2M) technology can be used to catch thieves in action and stop deforestation. Designed by Cargo Tracck, the discreet tracking solution uses Gemalto's tiny and powerful Cinterion® BGS2 M2M module to enable cellular communications between trees and law enforcement. New Radiation Data Exchange (RED) technology boosts the range of wireless communications, extending the reach to extremely remote areas that lack mobile network coverage.

When was this project implemented or last updated? (Please specify month and year.) Has it incorporated new technologies and/or other innovations since its initial deployment? (In 300 words or less.)

June 2012. The project mantains the same technology since its deployment.

Is implementation of the project complete? If no, please describe the project's phases and which phase the project is now in. (In 300 words or less.)

At present, this is a pilot program. Depending on the results, this project could expand its scope.

Please provide at least one example of how the technology project has benefited a specific individual or organization. Feel free to include personal quotes from individuals who have directly benefited from the work. (In 300 words or less.)

Deforestation of the Amazon causes significant environmental and global economic damage. Environmental consequences include soil erosion and climate change estimated by the Skoll Foundation to cause roughly one-fifth of global carbon emissions, so this technology could generate global benefits in the medium term. Also, to adequately fight illicit logging trade and make criminals accountable, it is vital to catch thieves in the act, and this device provides a new, cost-effective solution for real-time "asset" tracking in a harsh environment.

Would this project be considered an innovation, a best practice or other notable advancement that could be adopted by or tailored for other organizations and uses? If yes, please describe that here. (In 300 words or less.)

Gemalto's Cinterion M2M technology is integrated in a variety of innovative solutions that enable machines, devices and even trees to communicate on mobile networks to improve processes, productivity and efficiency. The Cargo Tracck solution highlights how Gemalto M2M technology can be applied to help deter crime and protect the environment. It is also used to enable secure POS transactions; remotely manage assets, buildings and industrial operations; improve productivity of fleet operations; as well as power specialized industrial PDAs for workforces.