USE CASE STUDY
Manhole Tampering

SqwidNET
A DFA COMPANY

Manhole Closed
When it comes to public utilities, we seldom think about how they appear in our homes and buildings. But water, electricity and sewage all embark on a journey to enter and leave our lives safely and effectively. Most of us don’t consider how people ensure that these services remain operational. For all of that, there is a simple piece of technology that is required. It’s called the manhole.

- Missing manhole covers result in the loss of 1 life every 4 days!
- Utilities economic losses are increasing due to theft of metal manhole covers resold as scrap on the black market
- Open manhole covers are dangerous to pedestrians & vehicles
- Other infrastructure like trains and electricity are at risk when thieves have access to underground cabling
- Technology is a key enabler to detect the movement of manhole covers
- Simple devices connected to the Sigfox IoT global network can be used to automatically detect the status of a manhole

As the smart city evolves through the Internet of Things (IoT), businesses have the ability to radically improve service delivery. A smart city can monitor a variety of things ranging from the quality of the air citizen’s breathe to the movement of a dumpster. Another critical area that can be monitored to improve service delivery is the monitoring of manhole covers.

Open manhole covers are a danger to the public. Pedestrians are often injured by falling into manholes, and sometimes the results could be fatal. Vehicles are also often damaged by open manholes. These result in brand damage, and hefty additional losses through insurance claims. Another important risk that an open manhole creates is that it provides access to other service delivery infrastructure. This can lead to theft of the assets under the ground, resulting in service disruption such as a power outage.
Utilities can rely on sensors to help them manage these valuable public assets. Alerts can be sent as soon as a manhole cover is opened so that the owners are able to discern whether the move was authorized or not. By adding GPS or geolocation capability onto the sensor, utilities can also track and recover the stolen covers.

By connecting manhole covers to the Sigfox network, utilities and businesses can improve service delivery, reduce losses and keep citizens safe.

ENSURE PUBLIC SAFETY
MONITOR MANHOLE OPENING/CLOSING
TRACK & RECOVER STOLEN ASSETS
INFORMED RESOURCE MANAGEMENT THROUGH BETTER DATA