

The background of the top half of the page is a photograph. It shows a person from the chest up, wearing a blue long-sleeved shirt and a bright green safety vest. They are holding a silver tablet computer with both hands, looking at the screen. The background of the photo is a blurred industrial scene at sunset or sunrise, with tall metal structures and a warm orange and yellow sky.

CASE STUDY

LoRaWAN Increases Productivity, Improves Operational Efficiency Across Industries

Overview

Traditionally, we think of cellular networks as the solution for the primary mode of wireless connectivity; however, cellular can be ineffective when looking at connectivity solutions for widespread areas or urban locations. Widespread areas, such as buildings, factories, and ports, seek secure connectivity solutions with better power consumption for their unique needs. Allowing for the mix of public and private networks, LoRaWAN answers the need for true flexibility, cost-effectiveness, and security. With a similar process of deploying a wifi network but with fewer gateways, LoRaWAN provides users with a simple network infrastructure that has the ability to connect anywhere.

The Challenges

Outside of looking for a cost-effective, reliable, efficient connectivity solution, powering connectivity can pose a challenge. Utilising the power of LoRaWAN can solve a mix of connectivity challenges for things such as sensors and metering across industries, including Smart Cities, Fleet, Automotive, Agriculture, Industrial, and many more. There are many IoT implementations where energy is unavailable or unreliable, and battery life has historically been too short-lived to work as a solution.

With all the machines, people, and processes required to monitor, there are a lot of sensors to be deployed, and without connectivity, it can be a



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hurdle. For example, in the industrial industry, for safety measures, cranes have a strain gauge sensor that lets operators know their level while carrying heavy objects. These critical sensors for ensuring operational safety are currently read using a wire. The mobile nature of these cranes causes these strain gauges to break often. In order to avoid the negative impact of equipment malfunctions, a more permanent solution was needed to mitigate potential operational disruptions and safety risks.

The Solution

By managing all necessary devices, networks, and sites (public and private networks) anywhere in the globe on the same platform, we allow organisations to grow as the demand grows. With no limits on the number of devices, providing an edge with border options working including cloud options or using the local instance, our hybrid approach syncs all the information, resyncs, and resumes on its own in case of communication failures and supports various types of deployment models.

KORE's LoRaWAN platform, KORE LPHub, presents users with benefits such as safety, environmental compliance, efficiency, and productivity. LPHub has a flexible environment to work with connectivity beyond simply managing the connectivity of applications; it serves as a hub to manage the messages between devices. Unlike cellular connectivity or wifi, which requires devices to be connected to an application, LPHub has devices sending messages to one streamlined platform allowing the customer to manage their data in one place.

KORE brings together a cross of different deployment options from the cloud to on-prem, with a comprehensive end-to-end suite of applications. Whether for government mandates, safety measures, machinery, or personnel to track, there's a flexible environment to manage your deployments across multiple networks and providers. Many industries benefit from these solutions. For example, a leading industrial company needed to leverage a wireless sensor that could easily measure levelness. When the industrial team heard they could use wireless

connectivity to measure in real-time, they rushed to integrate our LoRa solution. In certain locations, utility companies distribute gas canisters or gas cylinders to residents. Making the homeowners responsible for monitoring gas levels, which, if not diligent, can result in a lull of service while waiting for a replacement. Working with a utility provider that proposed uninterrupted gas, LPHub connectivity allowed them to measure the contents of the bottle for the homeowner and service the gas when readings measure low for a monthly fee instead of by the bottle. Needing to manage testing while also deploying two types of necessary communications with their existing devices and legacy systems, a vehicle tracking company leveraged LPHub to manage the data ingestion and adaptation between systems stripping any communication that wasn't compatible with their systems and allowing for communications across a central application as well as peer-to-peer.

The LPHub solution provides customers with the comfort of knowing that projects will not only start but continue to be managed by KORE or a hybrid of KORE and the customer for years to come.

The Result

The use of KORE's LoRaWAN platform, LPHub, was a success in many different ways. Each use case discussed experienced lowered costs, less energy usage, and higher flexibility. The ability to optimize better power consumption by strengthening battery life to last one to two years as opposed to months has given KORE the ability to lower operating costs for clients. Additionally, the use of LPHub has given the utility company the ability to provide the comfort of having pipe gas but with a bottle. The vehicle tracking company is on track to reach 30,000 communication devices by the end of this year.

Connectivity should be reliable and available. The future goal is to have cross-networks or multiple networks available rather than a few small carriers. With more flexibility to aggregate all types of networks and provide customers with access to shared networks, location is no longer an obstacle.

About KORE

KORE is a pioneer, leader, and trusted advisor delivering transformative business performance. KORE empowers organisations of all sizes to improve operational and business results by simplifying the complexity of IoT. KORE has deep IoT knowledge and experience, global reach, purpose-built solutions, and deployment agility to accelerate and materially impact customers' business outcomes.

For more information, [reach out to KORE](#) to learn how we can help you achieve IoT Connectivity with LoRaWAN.