

# WIREPAS SPOILER ALERT!

Do you ship valuable goods that spoil easily? Do your goods need to be stored in the right temperature, humidity or avoid shock to stay in mint condition for your customers? Do you have the need to know the conditions of your goods in transit or in storage? Do you need to track your goods on-route and on-site?



## CUSTOMERS EXPECT QUALITY PRODUCTS

Making sure that you are delivering your promises to your customers on the condition of the goods is vital. It will ensure a long-lasting customer relationship and keep your costs down when you don't have to compensate for spoiled goods, either in money or new products. Materials such as wood, paper, cardboard, foods, pharmaceuticals, fabrics and consumer goods are very fragile for different reasons. All the goods mentioned are easily spoiled due to bad transit or storage conditions, such as wrong temperatures, humidity and shocks. Each of these products require specific conditions to be delivered to customers in their original condition. If the goods spoil, there will be both material and financial losses. Sometimes it just means that you need to reimburse the customer with new products, but sometimes it means that your delivery will be delayed and that can cause late fees on top of the loss.

Transit, warehousing and haulage companies might have a need to prove that they have stored and transported the goods in right conditions, to show no negligence and avoid covering the costs for the spoiled goods. The manufacturer or vendor of goods might also want to show that they have delivered everything in perfect condition and the good have spoiled afterwards. The need for time stamped sensor data is growing, since showing the timeline of the exposure to poor conditions to resolves the responsible party and prevents such from happening in the future. This will ensure that the customer receives only good quality products and stays as a happy customer.

#### HOW TO GET THE ALL-IMPORTANT SENSOR DATA?

You can connect all the goods to each other and create an internet of things network of them all. After connecting all the goods, you can use this network to collect the sensor data and send the data to a cloud to be processed into reports and alarms. This is easily achieved with a wide area mesh network, such as Wirepas Connectivity. It does not suffer from data collisions, can scale up to connecting millions of goods, and does not have density or interference problems. All the goods can send sensor data through the network to a gateway. The gateway then is connected via cellular. WiFi or Ethernet to the cloud from where the data gets forwarded to a backend system. Once the backend system is done with the numbers crunching, the customers can get information on the dashboard as reports, graphs and alarms to make business critical decisions. The time stamped sensor data can be collected in different ways, and here we have a couple of examples.

## 1. GATHERING DATA THROUGHOUT THE SUPPLY CHAIN, SENDING THE DATA AT DISTRIBUTION CENTERS

— Sensors are attached to goods and gather the data throughout the supply chain. They connect to each other and form a network that collects the data.

— Once the goods arrive at DC, or the store, the data is sent to cloud through a gateway placed in the premises.



All data will be shown in the right chronological order, since it is time stamped and no data will go missing.

# 2. GATHERING AND SENDING DATA THROUGHOUT THE ENTIRE SUPPLY CHAIN

- Sensors are attached to goods and gather the data throughout the supply chain and there is also a gateway device in every transportation vehicle connected to a cloud via e.g. a cellular connection and the data is sent on-route.
- Distribution centers and stores also have gateways and therefore the information is sent from there as well. The backend gets the data in the right chronological order, since it is time stamped and no data will go missing.



All the locations can be in the network and the data can be sent as frequently as needed, since the connectivity between the goods is free of charge. The data can be sent via an Ethernet connection on-site to keep the total cost of ownership as low as possible. If the data is needed to be sent on-route, the costs will appear only when the gateway sends the data to the cloud.



## WHAT IF THERE IS A NEED TO KNOW THE LOCATION OF THE GOODS?

Sometimes it's not enough to only know the condition of the goods. To be able to streamline the operations, there is an additional need to know the location of the goods as well. The same Wirepas Connectivity paired with a positioning engine can be used to collect also location data of the goods. All you need to do is add similar devices, used on the goods, as anchor devices with fixed locations and then use that as an infrastructure to track the location of the goods in the specified area. The same system can then locate the goods and show the condition of them in one glance. Naturally, the backend system can be used for adding other information on the goods as well, if needed.



## SPOIL YOUR CUSTOMERS NOT YOUR GOODS

Excellent service and immaculate products keep customers coming back to you. By ensuring the right transport and storage conditions the goods stay in good condition and not scrapped, reimbursed or maintained. This will ensure your customers happiness with the goods they receive. Offering the customers on-site location data and tracking data along the route of the delivery as an additional service, will be appreciated and valued in today's high paced society. Spoil your customers, not your goods!

## CONTACT

sales@wirepas.com

## WIREPAS

We're changing the face of IoT. To set a new standard. To skip the bullshit. To get infinitely scalable connectivity. Gentle on your wallet and way better than cellular 5G. In a network that never fails. Without middlemen or infrastructure. Totally self-managing. Tailored for commercial and industrial applications. Just more than you need. For less. We give you very very good IoT.