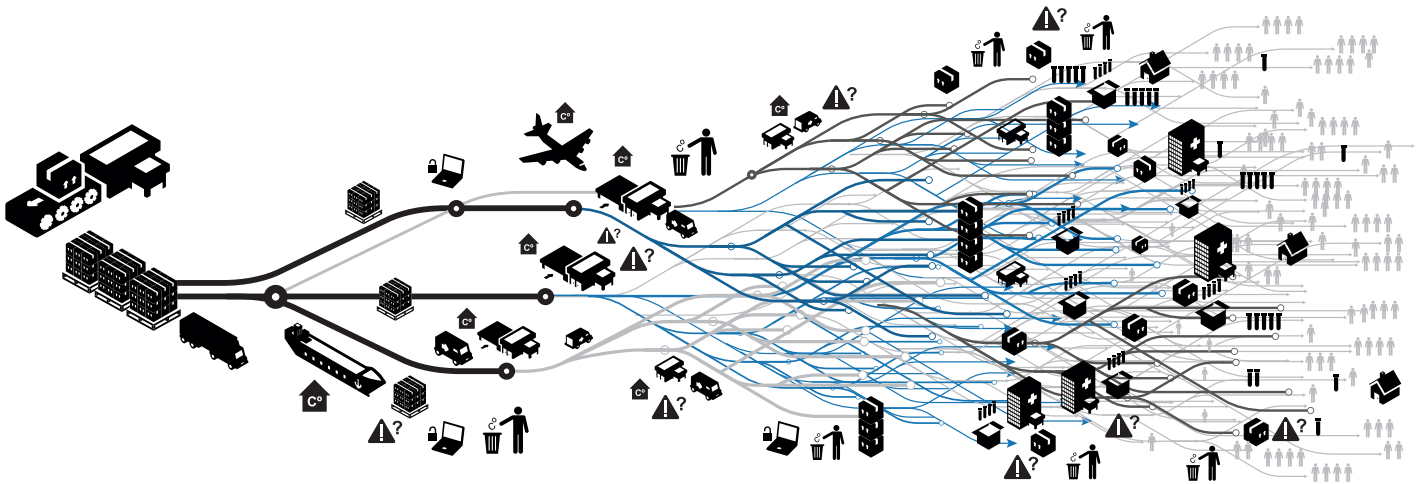# From sensor to service

AntTail

Pharmaceutical supply chains are long and fragmented and vulnerable to temperature variation. This affects the quality of medicines that pharmaceutical companies have spent millions on to develop and distribute in order to cure patients.

That is why every shipment needs to be monitored. AntTail helps Pharmaceutical companies to stay ahead of the game with the advanced cloud-based services and state-of-the-art sensors.

The AntTail supply chain solution consists of different sensors for every part of the chain – addressing specific needs for transport in boxes, pallets, trucks, warehouse and even patient home solutions. All sensors work together seamlessly and are an integral part of the service, which allows transporters to monitor temperature in each phase of transport: real time and online. As a secure cloud computing solution, companies need not invest in complicated infrastructure and software solutions. AntTail provides both the sensors and the software as a service.

Compliance delivered
CFR21 part 11, GAMP5,
EU directive 2013/C343/01

Advantages for Third Party Logistic provider

+ Independent monitoring services on all transport units: trucks, reefers, planes
+ Off-line and on-line is both supported
+ Data is available to integrate in back-office
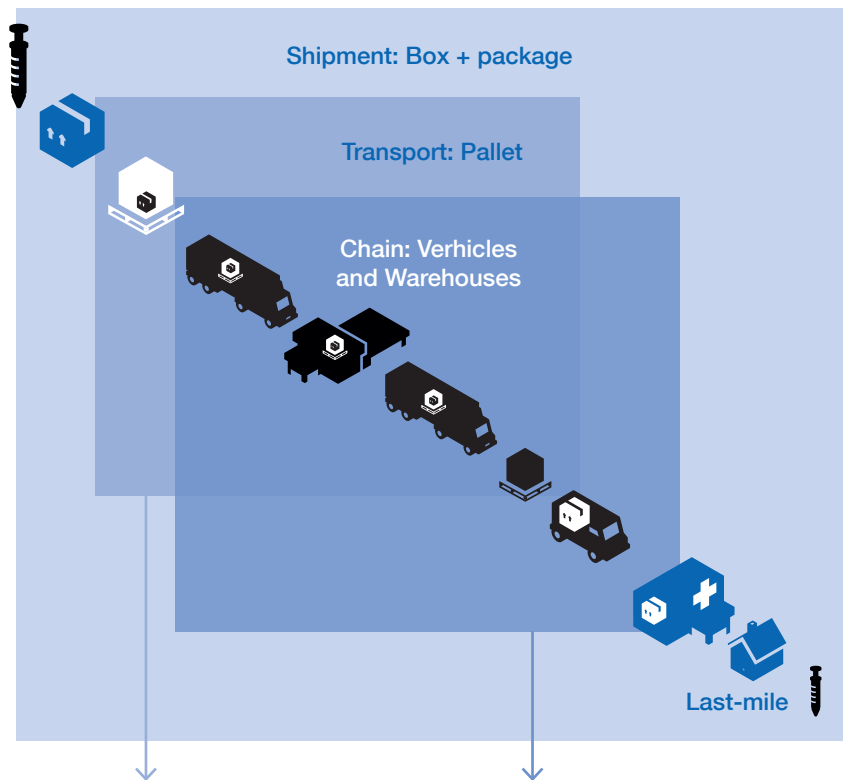+ Cargo monitoring per box, pallet or packaging available

Advantages for Pharma industry

+ Warehouse monitoring available on the same platform
+ Cargo monitoring per box, pallet or packaging available
+ No manual actions to harvest data
+ Data is freely available to integrate in quality systems or back-office

AntTail provides transparancy in the supply chain. AntTail designs and delivers products and services that monitor the temperature of medicine during transport and storage from manufacturer to end user. Smart sensors allow pharmaceutical companies, health providers and logistic service providers to monitor the temperature of shipments online and assure product quality. AntTails cloud based secure SaaS-solution works with existing cold chain solutions, avoiding investments and complex implementations.

For more information visit www.anttail.com
or contact us at info@anttail.com or +31 35 69 221 71

Shipment: Box + package

Transport: Pallet

Chain: Verhicles and Warehouses

Last-mile

For box and package

ANT

+ Temperature tag
+ Battery Life is 16 months.
+ Dimensions: 68 x 38 x 7 mm
+ Measurement interval 300 seconds
+ Memory 210.000 samples
+ Wireless AntTail Pheromone network

ANT Lux

+ Temperature and box opening tag
+ Battery Life is 16 months.
+ Dimensions: 68 x 38 x 7 mm
+ Measurement interval 300 seconds
+ Memory 210.000 samples
+ Wireless AntTail Pheromone network

RAT
for transport and pallet

+ Rugged tag
+ Battery Life is 60 months.
+ Dimensions: 93 x 67 x 23 mm
+ Temp. measurement interval 300 sec.
+ Memory 525.000 samples
+ Wireless AntTail Pheromone network

RAT Ex
for verhicles and Warehouses

+ Fixed with tag with external sensor
+ Battery Life is 60 months.
+ Dimensions: 93 x 67 x 23 mm
+ Temp. measurement interval 300 sec.
+ Memory 525.000 samples
+ Wireless AntTail Pheromone network

Hardware common features

+ Very accurate temperature sensor +0.3/-0.2 °C for 99% and +0.5/-0.5 °C for 100% of the sensor population.
+ Low float during lifespan of a sensor, less then 0.0625 °C in 10 years.
+ Less calibration effort saves time and money. (€ 100 per sensor per year)
+ ZERO tolerance sample loss policy. The entire battery life is matched by the memory in the sensor.
+ Avoid human error and labour costs.
+ Very advanced low-power wireless network, scalable to 1.000 sensors in a single location.
+ Quick catch-up if a shipment with a sensor arrives at a location with an AntTail network.

Backoffice and portal

+ Cloud based and secure database for all samples and events generated by the AntTail sensors and Gateways.
+ On arrival of each sample, a complex event processing process evaluates if an alarm needs to be raised.
+ Customer specific portals securely hosted in the AntTail customer cloud. For Warehouse, Logistics and Last Mile separate modules are available.
+ Integration with customer systems are available through web services.
+ Encrypted wireless network protocol, to keep data safe.
+ Data is hosted in the secure AntTail cloud.
+ Data collection is wireless, automatic (no humans) and complete.