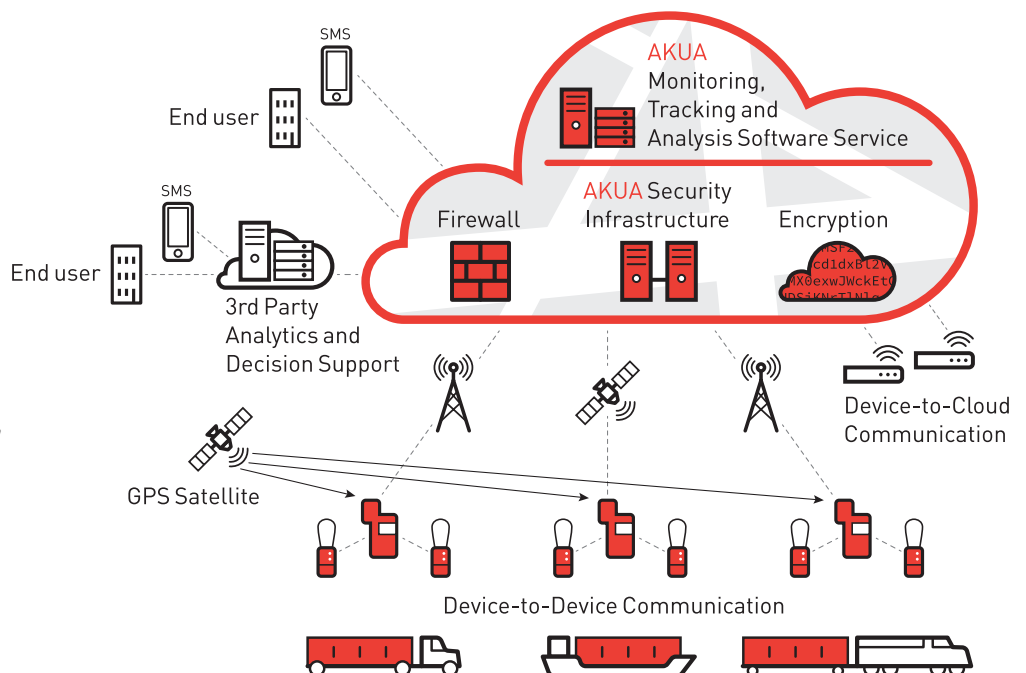# AKUA

Cold Chain Solutions for Growers and Producers

The AKUA solution enables growers and producers to reduce spoilage related loss, maximize product quality, and optimize the value of their shipments.   AKUA's secure, persistent environmental monitoring and tracking services deliver actionable information regarding the location and condition of perishable and environmentally sensitive products. In-transit visibility – without disturbing pallets, opening containers, or unloading trailers – enables product quality and shelf live to be maximized.

For fresh produce, chilled or frozen protein, and other perishable foods, proper handling and environmental control throughout the entire cold chain is critical. Even relatively small variations in temperature can significantly impact the shelf life of fresh produce – and its value. Throughout the cold chain, products can be mishandled, left exposed to the elements for extended periods of time, and subjected to transportation delays – any of which can affect quality and shelf life.

In-Transit Viability

AKUA continuously tracks location and monitors temperature, humidity, shock, and light as goods move over the roads, rails, or seas and during the hand-offs between storage, trucks, trains, and containers. This enables AKUA to provide real-time information about the current condition and location of goods, as well as information about their present environment. This information can be used to alter handling, environmental conditions, or routing to protect product quality or optimize value at the time of arrival. In-transit visibility additionally enables:

Prevention of irreparable harm.
If temperature, humidity or other variables trend toward unacceptable limits, real-time alerts enable corrective action.

Predicting the condition of goods at time of arrival.
Environmental monitoring data and established ripening and deterioration profiles can be used to provide ripening knowledge. This enables decisions to be made ahead of arrival to optimize the value of goods.

The AKUA Solution

The AKUA solution GPS tracks and continuously monitors goods at the palette, trailer, boxcar, or container level from the first to last mile of the cold chain. Environmental sensors and Secure Logistics Masters (SLM) provide real-time tracking and environmental sensing, transmitting data over GSM or Iridium to the AKUA cloud. Using AKUA's web services or a 3rd party application, end users are aware of their shipments location and condition, and are alerted in the event of incursion or threshold violation.

Identifying Violations of SOPs and SLAs

The transport and delivery of perishable goods involves many steps and handoffs. Standard Operating Procedures (SOPs) and Service Level Agreements (SLAs) are established with carriers and 3PLs to insure proper handling. But SOPs, such as precooling, and SLAs are sometimes violated, either as a result of unforeseen circumstances, like weather, or as a result of poor performance. Environmental monitoring and location tracking data can be analyzed to determine if and where SOP and SLA violations have occurred. This enables responsibility for any product damage to be established, and for corrective measures to be put into place to avoid future reoccurrences.

Why AKUA

AKUA brings together a strong heritage in cyber-security, supply chain logistics, and big data analytics. Our principals and founders are recognized as leaders in creating smart supply chain technology and solutions, and bringing security to the Internet-of-Things for supply chain logistics. By combing our legacy in cyber security and supply chain logistics, AKUA has created the industry's first global, end-to-end physical and cyber secure logistics solution

AKUA

Learn more at akua.us.