

Cold Chain Management

Uninterrupted Monitoring of Temperature-Controlled Supply Chain

SRP-CCM700



Solution Ready Package



- Ensures food safety
- Secures pharmaceutical quality
- Reduces food loss by 30%
- Improves brand integrity



◆ Application Story

A Supermarket Chain Strives to Deliver Food Quality and Safety

A global supermarket chain's Taiwanese branch has implemented Advantech's cold chain solution in its distribution centers, warehouses, refrigerator trucks, and retail stores closely monitor the transportation and storage of food products.

Through sensors installed in refrigerator trucks, Mr. Yang, who runs a store of the supermarket chain in northern Taiwan, can monitor the temperatures at which his food orders are delivered in the trucks to the store. To maintain the quality and safety of these food products upon their arrival and before sold to customers, he uses Advantech's temperature and humidity sensors to ensure they are stored at proper temperatures in fridges and freezers.

Through the cold chain management dashboard, Mr. Yang can have real-time access to all the data collected by the sensors and get notifications when something goes wrong in the supply chain, warehouses and his store. Advantech's cold chain solution enables store owners to efficiently and effectively control the quality of food products and minimize risks due to poor maintenance of the storage environment.

• Quick proof of concept

• Cableless setup

• Easy installation

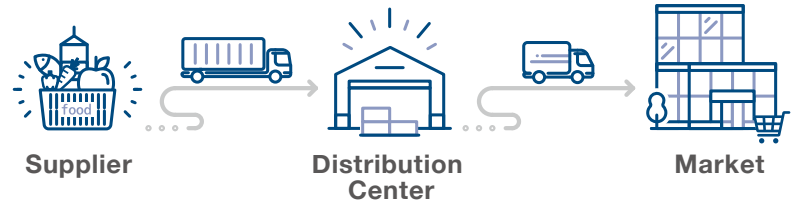
• No damage to wall/equipment/vehicle



■ Immediate data collection from temperature sensor.

❖ Cold Chain

The cold chain is a supply chain in which goods are maintained in a temperature-controlled environment. It is common in pharmaceutical and food industries. A poorly controlled supply chain can lead to contaminated foods or drugs, which can cause serious illnesses or even death.



❖ Cold Chain Management Solution

Advantech's cold chain management solution spans temperature and humidity sensors, gateways, an Android APP for configuring the sensors and a backend dashboard that displays the data collected along the cold chain and presents a map indicating where the temperature is poorly controlled, leaving stocks at risk of being damaged.

The temperature and humidity sensors pass data to a gateway, and the gateway uploads the data to the cloud. The manager can use Advantech's cold chain management platform to monitor cold-chain logistics in different stores simultaneously in real time.



- ▶ Installation within seconds.
- ▶ Battery lasts for years.
- ▶ Signal through walls.

❖ Storage Temperature Management

TREK-120 can be installed in storage units (e.g., warehouses, refrigerators, and freezers) where the temperature needs to be recorded and monitored. It collects temperature and humidity data and sends them to a gateway, thus allowing a store manager to conveniently oversee multiple stores and keeps them informed if something goes wrong.



The dashboard indicates the locations and status of all TREK-120 units for efficient management.

❖ Refrigerator Truck Temperature Management

When used in refrigerators tracks, TREK-120 keeps the driver alerted if anything goes wrong and allows the recipients of freight to track temperature changes in the truck's refrigeration unit and thus better manage logistics.



TREK-120 presents temperature changes in refrigerator trucks, allowing store managers to better control the supply chain.

❖ Cold Chain Management Situation Room

1

Focal Point:

Displays details about the real-time status of all sensors installed in the store, highlighting those that report unusual events.

1



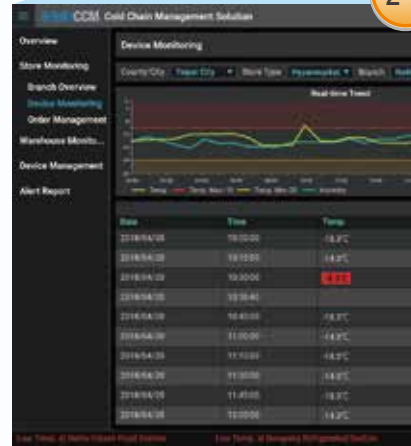
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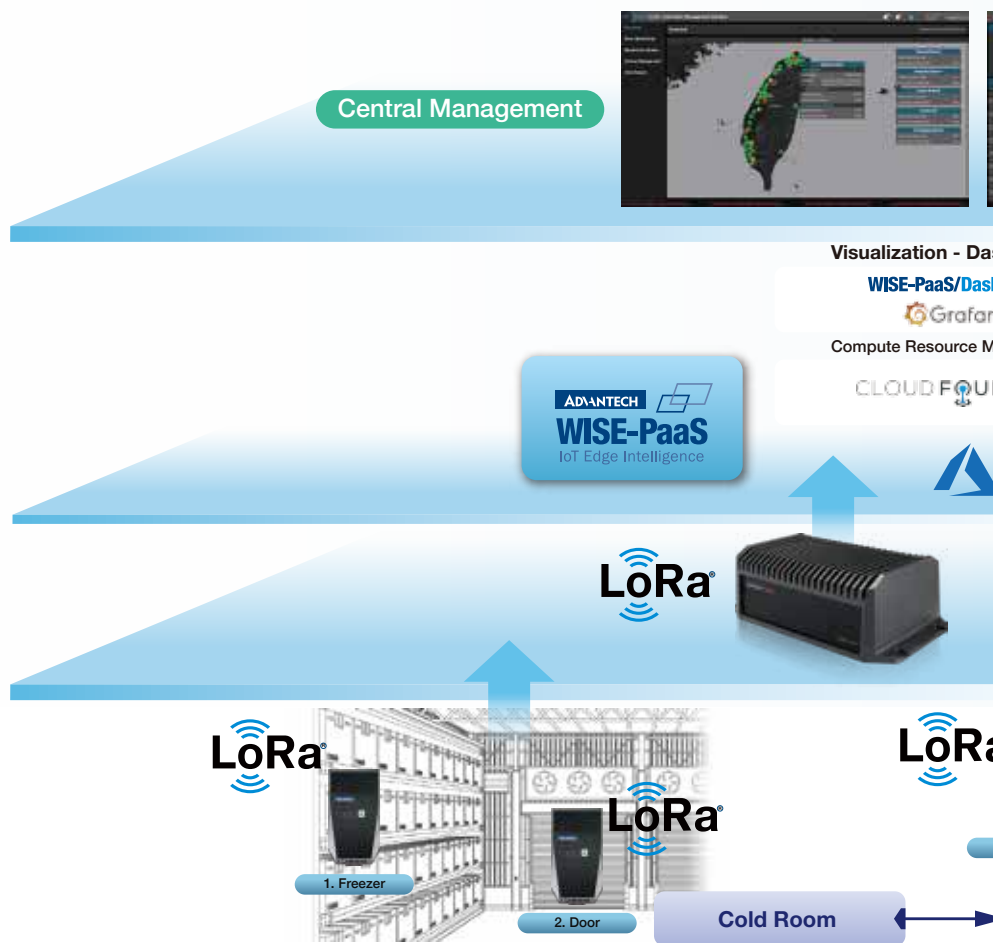
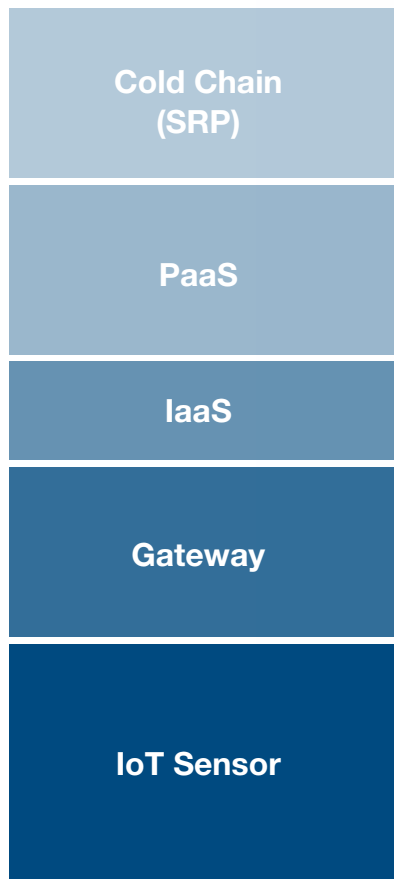
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2-



❖ System Diagram



Cold Room

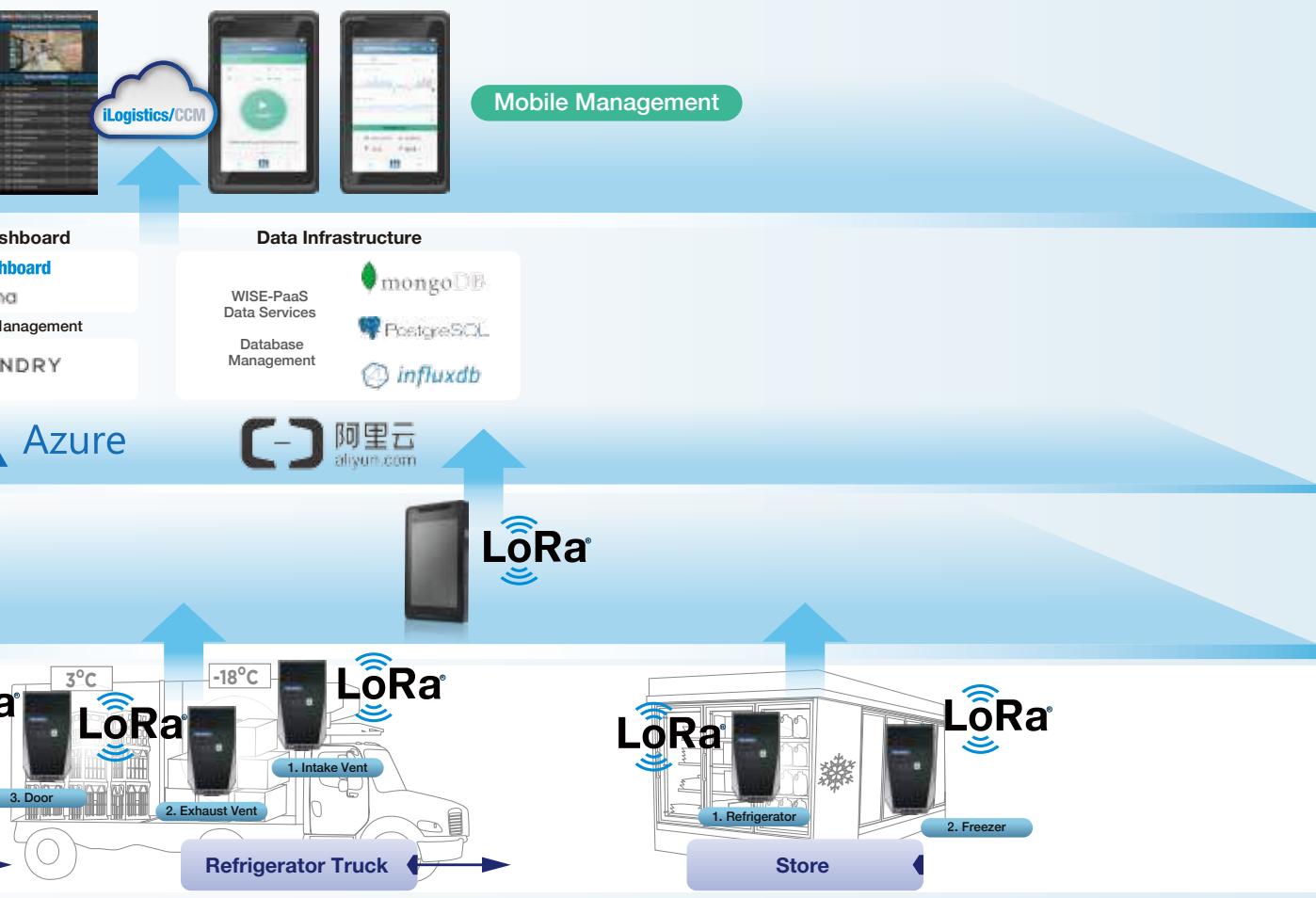


2

Dashboard with Alert Report:
 Enables in-depth monitoring and management of the end-to-end cold chain, including all the sensors deployed in refrigerator trucks, distribution centers, and stores, to help store managers ensure food products are carefully delivered with their quality unimpaired.



3










KPI Score Card:
 Provides store managers with a quick overview of the KPI of different stores, with which store managers can monitor performances of numerous stores within a successive period of time.



Ordering Information

WISE-PaaS Situation Room

Solution Package	
WISE-PaaS Situation Room	<p>[SRP-SR-100-BTO x 1] LCD Wall: 86" x 1 + 55" x 2 Server and Display: DS 980 x 1 Control Panel: UTC 520 x 1 WISE-PaaS/SignageCMS x 1</p> 
WISE-PaaS VIP Membership 98DPWSPA0A	<p>SloT WISE Point: 2,000 points</p> 

Solution Name	Sensor	Mobile Temperature Management Device	Gateway
Warehouse & Store Temperature Management SRP-CCM700-1	TREK-120 LoRa Based Temperature Sensor x 8 	PWS-472 	TREK-530 x 1 
Refrigerator Truck Temperature Management SRP-CCM700-2	TREK-120 LoRa Based Temperature Sensor x 3 	PWS-472 	TREK-530 x 1 SKU A: LoRa,4G LTE, Wi-Fi 
	TREK-120 LoRa Based Temperature Sensor x 3 	PWS-472 	TREK-530 x 1 SKU B: LoRa, Wi-Fi 

Optional Purchase		
IoT.SENSE Training	Basic Training	4 Hours
	Advanced Training	8 Hours
IoT.SENSE Consulting	IoT Solution and On-site Technical Support	4 Hours

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