



AVANTE SUPPLY CHAIN SECURITY MONITORING SERVICES

END-TO-END CARGO SECURITY TRACKING AND MONITORING



SECURE YOUR CARGO THROUGHOUT THE SUPPLY CHAIN

AVANTE Supply Chain Security Monitoring Services greatly reduces the following prevalent supply chain risks:

- ❖ Cargo theft from containers and trailers via any of the six sides of the container
- ❖ Potential spoilage from unwanted temperature variations (high or low)
- ❖ Cargo damage due to shock during handling for insurance adjudication
- ❖ Border and Customs concerns of contraband
- ❖ Homeland Security concerns of radioactive devices (optional services)
- ❖ Geo-fencing and route conformance for potential diversion issues
- ❖ Real-time alerts for any exceptions and tampering
- ❖ Web role-based access to the conditions of goods

AVANTE Supply Chain Security Monitoring Services provides a full spectrum of services for cargo container (including cold chain) security monitoring and tracking to shippers, logistics providers and customs authorities throughout the supply chain.



AVANTE Supply Chain Monitoring Services provides 24/7/365 end-to-end tracking and monitoring of the security integrity and conditions of the container from point of origination to point of destination.

AVANTE uses patented technologies that exceed C-TPAT container security requirements. Our system is the only one in the world that provides real-time alerts and notification of any theft or damage to a container's contents and security breaches from any of the six sides of the container.

- A user-friendly web-based interface provides stakeholders the ability to check the **conditions of the goods** including intrusion, tampering, temperature, moisture and other sensor-based status anytime and anywhere in the supply chain.
- Exceptions and/or intrusions are detected by AVANTE patented multi-mode sensors and RFID devices inside the container and reported in real-time to shippers, buyers, authorities including customs, insurance providers and 3PL providers via SMS, email and other communications channels as required.
- AVANTE Supply Chain Security Monitoring Services provides its subscribers with a certificate and documentation of end-to-end tracking and monitoring for each container shipment. This report may be used for insurance rate negotiation, adjudication, and possible "green lane" inspection qualification and compliance.
- In addition, the system provides contraband detection and optional real-time reporting of Homeland Security threats arising from radiological and certain chemical device smuggling by direct sensor detection as well as strategic end-to-end monitoring of stuffing points, transportation and storage.



Electronic Goods



High Value Merchandise



Perishable Goods



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- ❖ The key to supply chain security is end-to-end tracking and monitoring. AVANTE Supply Chain Security Monitoring Services begins with personnel credentialing for packers, drivers and other staff.
- ❖ Throughout the inland transportation of the cargo via truck or train, AVANTE Supply Chain Security Monitoring Services monitors the integrity of container for intrusion and other exceptions.
- ❖ Lighting and traditional physical security systems have proven to be insufficient in protecting containers in storage yards and staging areas. AVANTE Supply Chain Security Monitoring Services includes intrusion and exception monitoring and tracking of the containers until they are loaded onto the ship.

System Configuration

ZONER™-SSID BADGE:

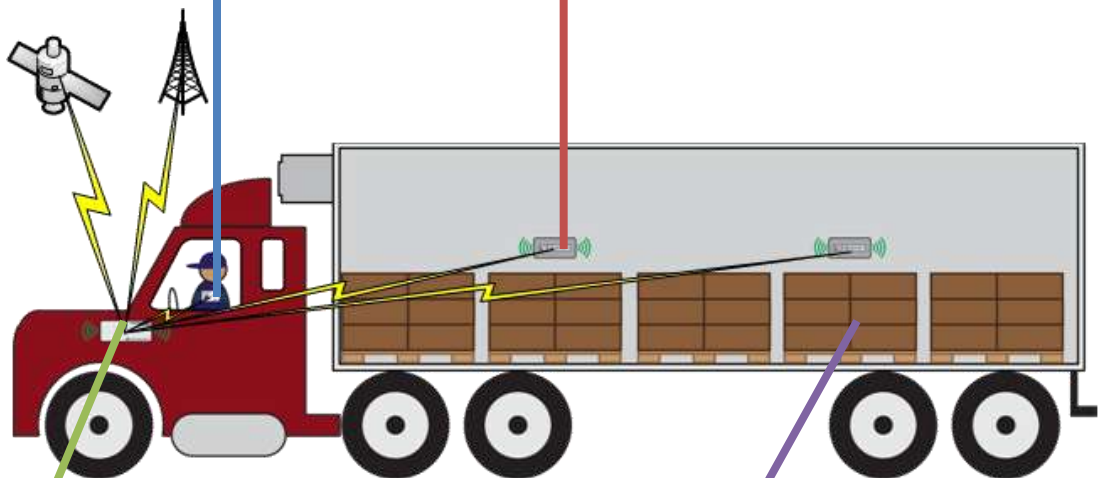
Personnel Security Active RFID Device for packers, staff and drivers (TWIC compatible)

- Detects motion and relative location
- Embedded panic button to call for help
- Reports extended absences during trucking
- Optional configuration to disable vehicle ignition without authorized badge present
- Regularly reports during end-to-end tracking and monitoring for security and safety certification

ZONER™-CTID TAGS:

Multi-Mode Sensor Active RFID Device for containers

- Detects intrusion from all six sides: door, walls, floor and top and reports breaches in real-time
- Detects and reports temperatures exceeding a configurable safety range in real-time
- Detects and reports excessive shock for possible damage to cargo in real-time
- Reports conditions during end-to-end tracking and monitoring for security and safety certification
- Keeps up to 60,000 recorded sensors data in cyclic memory



RELAYER™-RFID COMMUNICATION DEVICE:

Mounted in truck cabs, warehouses and freight yards, port facilities, trains, ship-decks, or on standalone containers

- Communicates with and monitors the ZONER™ tags & badges
- Keeps up to 60,000 data points tagged with GPS location in cyclic memory
- Periodically transmits data to data center servers and monitoring stations via GPRS an/or SATCOM
- Transmits exceptions and intrusions to central data center and monitoring station in real-time
- Relays the exceptions and intrusions to stakeholders via SMS, email and telephone
- Authorized Stakeholders can log-in with unique user names and passwords from anywhere in the world with web access for real-time monitoring of all of their containers
- For **COVERT monitoring configuration**, please call and consult with our sales and engineering staff

Optional Pallet Cover:

Placed over pallets

- “Astro-Cooler” or equivalent RF blind (please talked to our sales staff for this patented solution) pallet covers provides pallet level security monitoring and real-time alerts
- Coupling with the patented ZONER-RELAYER™ intrusion monitoring allows for the highest level of security protection and tamper-alerting available

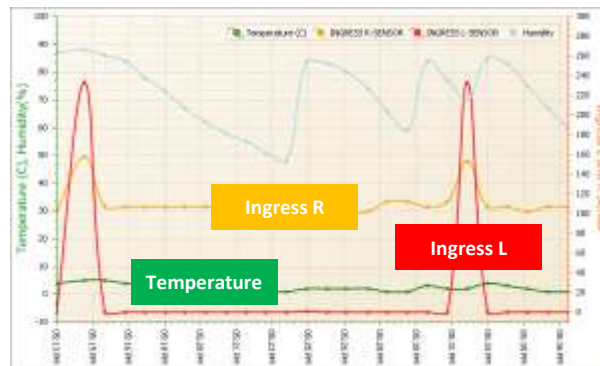


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Web Based User Friendly Solution



Powerful Software

A clean, user friendly yet powerful web-based interface allows for concurrent reporting to authorized stakeholders anywhere in the world. Additional features include:

- ❖ Route geo-fencing
- ❖ Driver and vehicle permissions
- ❖ Extended absence alerts
- ❖ End-to-end transit history
- ❖ Situation and response management through logged alert acknowledgment
- ❖ Step-by-step playback
- ❖ Full historical archives

Customizable Alerts

Alerts are sent via text message, email or phone. Alerts are real-time rather than post-mortem.

Simple Integration

Web-based solution with easy-to-use interface is designed to easily integrate with your existing management systems with web services.

System Components

- **ZONER™-CTID TAGS** with temperature, motion, shock, light, sound, humidity and other optional sensors
 - Detect intrusions through any of the six sides of the cargo area
 - Can be located directly on the goods to provide localized status information or mounted on walls for general conditions.
- **ZONER™-SSID BADGES** with panic button
 - Associates personnel and staff with goods for accountability
 - Active (433MHz ISM) RFID technology
- **RELAYER™-RFID COMMUNICATION DEVICE**
 - Communicates with and monitors the ZONER™ tags and badges
 - All data is stored and sent to a central server via GPRS or SATCOM
 - Relays the exceptions and intrusions to stakeholders via SMS, email and phone





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AVANTE's Supply Chain Security Monitoring Services division works with numerous associated partners throughout the world to help provide our container-based monitoring and tracking services at costs that are not only affordable but will achieve substantial return on investment on the very first container shipment.

AVANTE Supply Chain Security Monitoring Services is a division that is focused on the global supply chain security market. Our mission is to provide shippers and logistics service providers with real-time security monitoring services down to the individual container level at costs that are far less than those associated with shipment insurance and management.

AVANTE's strategy in ensuring supply chain security begins at the packaging and consolidation centers, follows en route trucking and delivery to the port, storage and staging at the port and yard, optional ship deck monitoring, through drayage, de-consolidation and unpacking at the shippers or end users warehouse.

AVANTE is a private company headquartered in Princeton, New Jersey with subsidiary operations in Hong Kong, China and the Philippines and associated operations throughout Asia, South America and Africa.

Since 1995, AVANTE has pioneered and patented many security technologies for protecting personnel and assets. AVANTE's patented technologies and features include:

- "Received signal strength" (RSSI) intrusion monitoring
- Multi-mode sensor intrusion monitoring
- Temperature and optional humidity monitoring
- Shock monitoring
- Optional radioactive, chemical and biological sensors
- Association of packers, staff, drivers and other operators with the shipping operations
- Provide safety protection to drivers with personnel badge panic call button
- RF snooping avoidance
- Each ZONER™ and RELAYER™ device records events every second with more than 60,000 events in cyclic memory in case of communication interruption, while the server permanently stores all data for forensics or future auditing
- Fully compatible with the use of conventional container lock-and-seals (PAS ISO 17712 seal) eliminates the need for training of operators at multiple jurisdictions

Call AVANTE at: 609-799-8896 and speak with John (x 119) or Charlie (x 112) for more information on how to secure your cargo throughout the entire supply chain!