Cargo Tracking Solution & Intermodal Transport Monitoring

AVANTE Cargo Tracking Solution including Real-Time Container Security are covered by one or more of the following US patents:

7,513,425; 7,508,308; 7,501,954;7,423,535; 7,382,255; 7,342,497;7,319,397; 7,158,030; 7,098,793;7,036,729; 6,961,000; 6,943,688;6,883,710; 6,703,935; 6,696,954;6,657,543; and other pending patents.zoner-relayer-gps-gprs-rfid-200

AVANTE Real-Time Container Transport, Supply Chain Security and Monitoring Service offers Embedded RFID-Sensors for Inside Container Monitoring and Security Seal; also available for Trailer Door Intrusion Tracking

AVANTE provides web-based 24/7 end-to-end real-time container tracking security monitoring services using its RFID ZONER™-RELAYER™ container security devices, carrier-based and yard based fixed site communication links, and association of personnel badges to provide cargo container visibility and supply chain security management.

Leasing a set of SMART-TRAKKERS™ consists of:

- One set of RFID ZONER™-RELAYER™ container security device (two ZONER™-CTID tags and one RELAYER™-CTOR).
- Three personnel ZONER™-SSID badges.
- One carrier-based communicator of RELAYER™-CTCR (equipped with GPS, GPRS and SATCOM).
- Optional fix site installation of networks of nodal and real-time locating system of RELAYER™-RTLS readers along the supply chain.
- Flexible service charges based on scheduled regular reporting and real-time exception reporting. This cost effective supply chain security system and visibility solution does not require capital investment.
- Return of investment (ROI) in using this patented transport security system is immediate and can be tailored to your specific requirements.
- Finding out if cargo containers carry any weapons-of-destruction after they arrive at or near our ports will be too late!

The AVANTE container security tracking and monitoring services using RFID technology dramatically minimizes false alarms that have plagued the e-seal technology industry. An RF network of reader-monitors RELAYER™ outside the containers constantly monitors signal strength changes using ZONER™ tags. Quantitative measurements of distinct changes in the RF signals received by the monitoring network are made over a continuous span of time. This is unlike some systems that use a single-event based detection system. All of the common false positives that plagued all existing RFID intermodal container electronic seals due to invariable shocks and movements during transport are eliminated.

AVANTE container security tracking and monitoring services incorporates a secure onboard communication system that automatically reports any in-transit container intrusion or tampering immediately to the destination custom and port authorities. The tampered carrier can be inspected away from the destination port to prevent mass destruction.

AVANTE pioneered the use and patented the first RFID technology for tracking and tracing personnel and assets over multiple locations and IT networks. This Avante capability is strengthened by the issuance of multiple US patents on "Article Tracking System and Method" (US 6,883,710 and 7,036,729) along with multiple pending patents. "The basis of the innovation is gathering RFID tag data in different tracking stations that are distributed over wide areas. The data is shared between stations to users over the Internet and other communication means. This patented solution provides true end-to-end visibility to secure the supply chain," said Dr. Kevin Chung, CEO of AVANTE.

This patented and pending patent active RFID ZONER™ tag and RELAYER™ network technology provides complete coverage of a ship's deck and port terminal yard. The resulting intermodal container security system is dramatically affordable and lower in cost over other current offerings.

The ability to have constant communication of active RFID ZONER™ tags inside the containers with RELAYER™ reader on the outside ensures that the RELAYER™ is actually on top of the intermodal container and not removed and placed on another container. The capability of real-time reporting of any exception and intrusion provides the ultimate intermodal container security management and supply chain security management solution. Monitoring door locks for container security managment is widely acknowledged as hardly effective. There are just too many ways to tamper with an intermodal container without touching or destroying the e-seal on locks during the transit.