Electronic Freight Security (EFS)—What to Expect
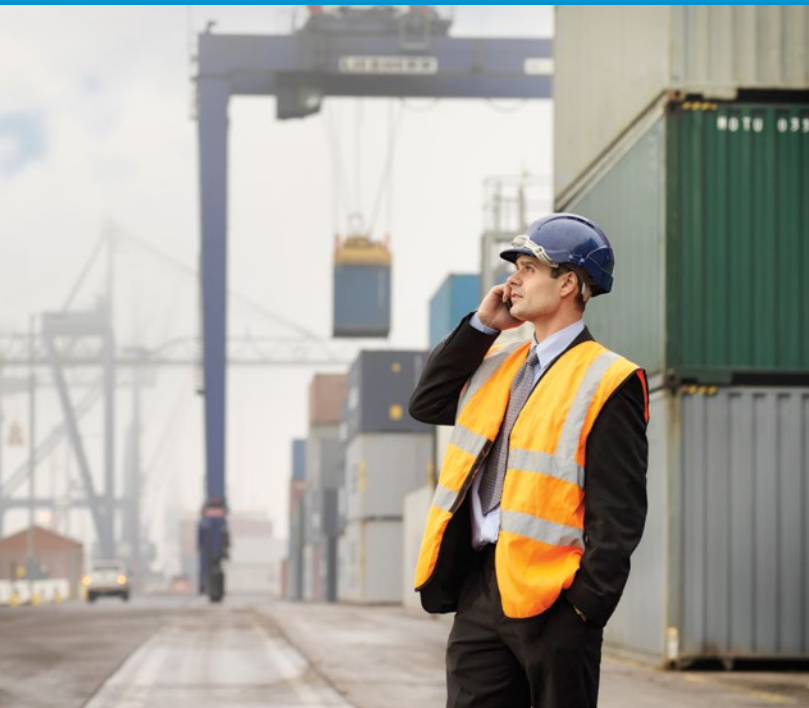
A Primer for the Set Up and Implementation of an EFS Program

As cargo criminals become more sophisticated and daring, global manufacturers, logistics companies, and supply chain stakeholders continually look for ways to securely protect their supply chains and cargo.

For many, Electronic Freight Security (EFS) programs are the answer, as they provide real-time, end-to-end monitoring of cargo shipments through embedded tracking technology.

This document will inform stakeholders of the evolving risks of cargo theft, the benefits of an EFS program, and what such a program encompasses.
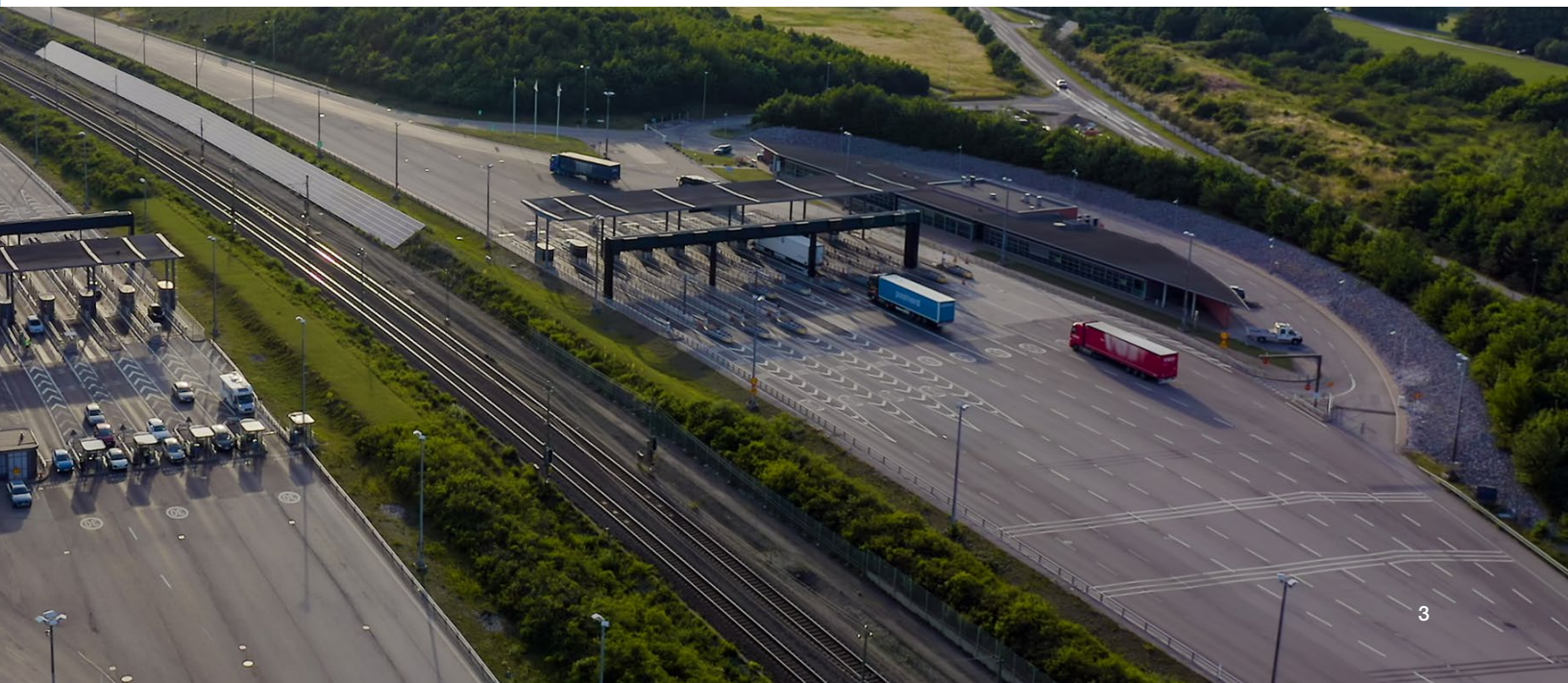
Why Implement a Risk-Based EFS Program?

There are many reasons why a company may opt to implement a risk-based EFS program. Here are some of the major trends that make these kinds of programs a vital and an integral facet of cargo security.

Cargo Theft on the Rise

Since 2015, Sensitech's Supply Chain Intelligence Center (SCIC) has documented increases in both the global volume and the value of cargo theft year-over-year with no known slowdown on the horizon.

New Threats Require New Actions

As cargo criminals become more sophisticated, new kinds of threats arise. For instance, fictitious pickups (FPUs) are on the rise. In these events, cargo thieves arm drivers with fake IDs or devise fictitious businesses to pick up cargo as a way to divert and steal goods. These criminals know how to navigate load boards and effectively target high-value loads.

Signal Jamming is Becoming More Prevalent Throughout the Cargo Theft World

The use of jamming technology by cargo thieves to interfere with telematics systems and tracking devices has become common in high-risk areas of the world, such as Brazil and South Africa. The Sensitech SCIC monitors globally for suspected jamming events, and has seen an increase in the use of jammers in Mexico and areas within Europe over the past several years.

While jamming technology could affect the performance of telematics systems and some tracking devices used in EFS programs, there are countermeasures available that dramatically reduce the impact of a jammer. Effective EFS programs use a combination of technology countermeasures and operational procedures to mitigate the risk of effective jamming events.

High-Risk Products

Any commodity that has value on the black or grey market is a target today. Within sophisticated, organized-crime networks, these highly targeted products are easily resold locally, regionally and internationally.

Dangerous Routes and Hot Spots

Companies that ship through known "hot spots" or via dangerous routes are more prone to cargo theft. If these high-risk areas are not avoidable, companies should employ the best security option that will protect the cargo and assist in the rapid recovery of stolen shipments.

Insurance Compliance

Depending on the nature of the cargo, some insurance policies require that EFS practices be utilized on high-value products to better protect cargo.

The High Cost of Stolen Products

For an industry like pharmaceuticals, there are many costs associated with the theft of product, such as replacement costs, higher security, and public relations efforts to control a damaged brand. Research shows, for instance, that the total costs associated with a theft could cost a pharmaceutical company up to five times the value of the product itself.

These are just a few of the reasons that manufacturers are increasingly turning to EFS programs to secure their cargo. EFS programs are considered to be industry best practice, and are also common practice among companies that want to drive a competitive advantage and reduce risk, while increasing visibility and security within their supply chains.

Considering an EFS Program?

Use this self-assessment questionnaire to determine if your company is at risk and could benefit from an EFS program.

If you...

- Ship cargo that is desirable to cargo thieves.

- Ship cargo that is valued at more than $100,000.

- Have highly publicized new product introductions where cargo theft would be detrimental to your public image.

- Ship to destinations that are high risk, or via routes that are in high-risk areas.

- Ship cargo on Fridays or holidays and stage it before delivering.

- Ship internationally from your site.

- Broker loads to third parties.

- Maintain a "just-in-time" supply chain that cannot handle disruption.

- Have suffered from a cargo theft in the past and are concerned it will happen again.

And if you don't...

- Have a large, experienced security team dedicated 24 hours per day, 7 days per week to logistics security.

- Have direct law enforcement relationships to assist with cargo security incidents.

- Conduct frequent background checks for regular, seasonal, and temporary workers.

- Implement cargo security protocols and write them into carrier contracts and service-level agreements.

THEN YOU MAY WANT TO CONSIDER AN EFS PROGRAM TODAY!

To further explore your potential risk: request a Security Assessment to uncover the value an EFS program could bring to your supply chain.

How Risk-Based EFS Works

EFS technology is an integral part of global security programs aimed at maintaining supply chain integrity from one end of the chain to the other. This technology ensures that shippers, carriers, drivers, and distribution teams secure valuable goods using the latest in security best practices. While EFS programs are comprehensive, they specifically focus on the highest risk areas of transportation, where the majority of full-trailer load cargo theft occurs. A risk-based EFS program uses real-time sensor data and analytics to constantly evaluate shipment risk and escalate events before they become critical.

The best-in-class programs provide covert cargo security that combines EFS technology, which is delivered through embedded devices in the cargo, telematics data provided from carriers, along with sophisticated real-time monitoring services. Real-time location, status, and condition data are transmitted via Internet-of-Things (IoT) and assisted-GPS devices, and enable critical activity alerts that protect the supply chain and mitigate the risk of cargo theft. All of this information feeds a real-time analytics engine that is constantly assessing shipment risk and raising alerts when appropriate.

These programs enable cargo monitoring, and also provide tracking, reporting, and recovery of high-value shipments in transit between manufacturing warehouses and delivery sites. All of this is delivered with the highest attention to security compliance and the management of pre-defined security protocols.

The most effective EFS solutions use technology that work in impaired environments where other GPS devices cannot. For instance, aluminum containers and cargo holds are some of the most challenging environments for regular GPS devices, but not for sophisticated EFS solutions

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Who's On an EFS Security Team?

A key part of any EFS solution is the team behind the solution. Cargo security experts employed by logistics security companies work with product and shipping experts on the customer side to ensure the most robust, secure program.

Here are a few of the roles involved in an EFS program and the associated responsibilities.

Implementation

The initial stage of an EFS program involves the building of security best practices based on the type of cargo shipped and typical routes used. The logistics personnel at the security company capture all relevant data, apply best practices, and input key information into a web-based solution. They also develop pre-determined geo-routes designed to utilize low-risk lanes. Escalation protocols are developed to ensure maximum compliance and security of the driver and cargo. Security professionals scrutinize tactics, techniques, and procedures used by cargo thieves and make appropriate adjustments. For instance, risk management officers ensure that processes are in place to communicate security protocols to shipment operators, as well as to capture critical shipment information prior to departure. On the customer side, logistics personnel ensure that before a load leaves the dock, a tracking device is covertly embedded per security protocols. The device is then activated by the security company for monitoring from the point it leaves the dock to when it arrives at its desired destination.

Training

Compliance with security protocols is critical, as immediate response and resolution to noncompliant incidents reduces opportunities for theft. Once the initial parameters of the program are established, the logistics company will set up customer training. Typically, logistics, supply chain, security personnel, and third-party suppliers attend the training.
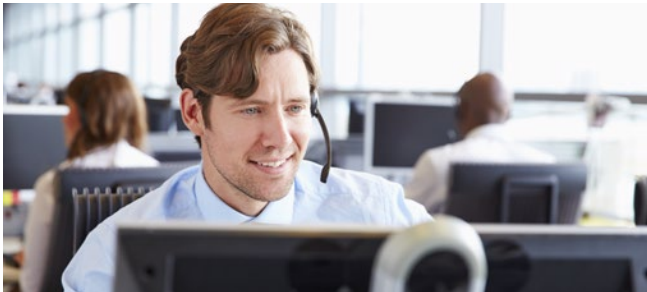

Monitoring & Tracking

Sensitech's Command & Control Center (C3) representatives provide point-to-point cargo monitoring according to pre-defined security, escalation, and communication procedures. These experts will initiate steps for the resolution of issues encountered with shipments requiring constant surveillance, such as a deviation from a pre-determined route, unauthorized stops, or failure to comply with transport and delivery protocols.
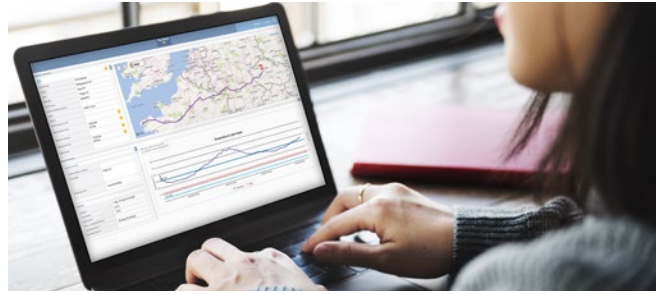
Program Oversight

Typically, there are Program Managers who provide operational and compliance metrics, such as motor carrier behavioral patterns related to risk, and weekly performance evaluation of shipments in transit. Program Managers receive cargo theft intelligence and work with a company's logistics team to assess data and maintain protocol expectations.

On-Going Reporting

Many logistics security companies also have analysts, who generate statistically rich reports, and provide insights for proactive cargo security, recommendations of best practices, overviews of carrier pattern risks, and information for continuous improvement. These reports also help to optimize motor carrier return-on-investment and ensure that carriers are adhering to shipping best-practice standards.

As a complete virtual escort and "eyes-on management," an EFS solution removes the vulnerabilities associated with human-based escorts, such as limited coverage, lack of scalability, and high costs. And most importantly, an EFS program significantly increases the chances of recovery in the unfortunate event of a theft.
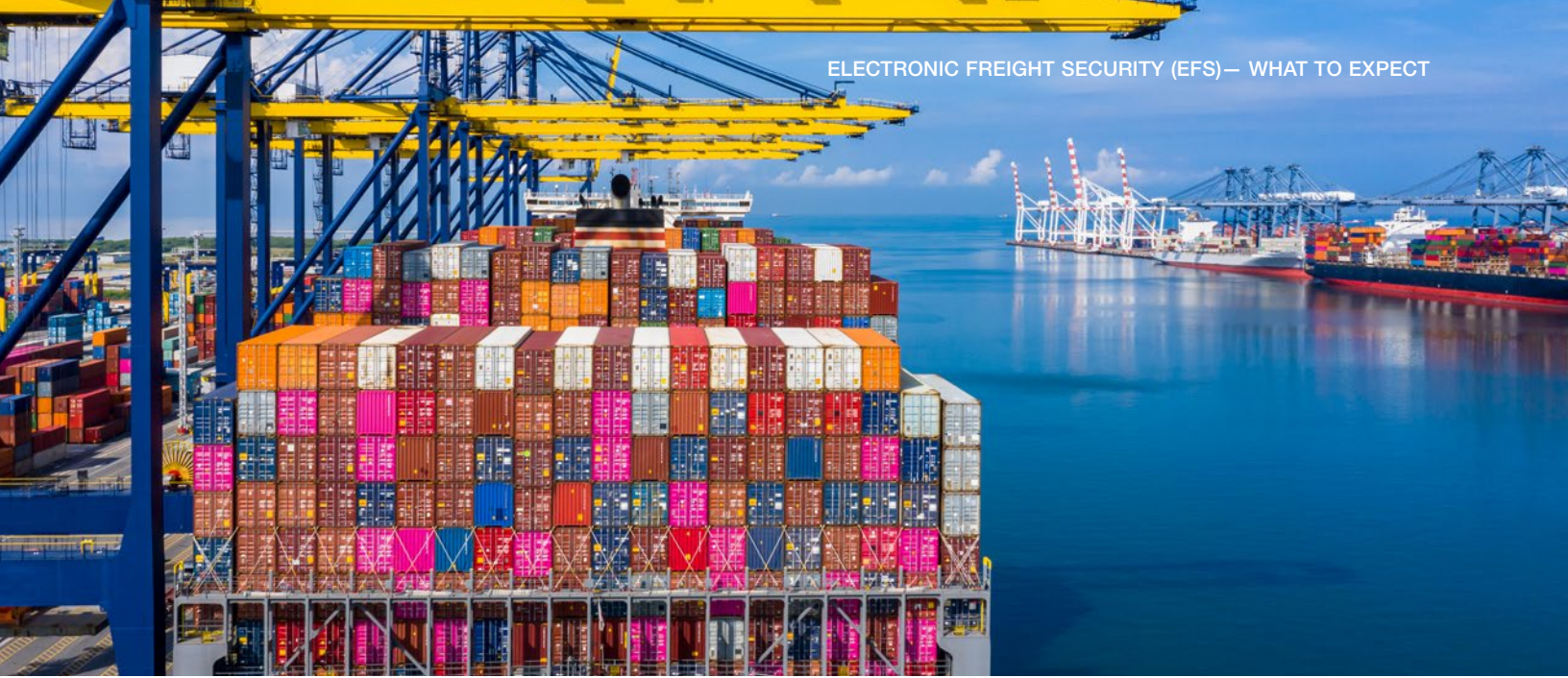
Emergency Response

In the event of a suspected security breach, or theft incident, an EFS solution provides immediate escalation processes. If there is a violation of predefined security protocols, emergency response teams can immediately contact the driver to assess the situation. If escalation is required, these teams will engage with law enforcement to recover the stolen shipment. Sensitech has law enforcement liaisons on-staff who are industry experts in cargo crime, transportation, and logistics security, and typically have extensive law enforcement contacts as well.

EFS in Action

Here are a few U.S. examples of how customers of Sensitech's Security Solutions use embedded covert EFS technology to help recover valuable cargo.

A $1.6 Million Recovery of Pharmaceuticals

Two shipments of pharmaceuticals from the same company were stolen in Georgia, within a two-week span, when drivers briefly stepped away from their trailers. Using real-time location data from embedded covert tracking technology, Sensitech's C3 engaged local law enforcement after identifying the location of the shipments. Law enforcement was able to recover the stolen shipments. After the thefts, the pharmaceutical company engaged Sensitech's cargo theft experts to review operations at one of their distribution centers, and to develop risk mitigation protocols to prevent possible collusion in the future.

Electronics Recovery

A trailer containing a shipment of consumer electronics was reported missing after being left unattended on a public street in Salt Lake City. Thanks to the location coordinates provided by Sensitech's security team, the Salt Lake City Police Department narrowed down the location of the load to a specific storage yard. The Sensitech Emergency Response Team set up a geofence around the yard so that any attempt to move the suspected load beyond the area would send immediate notification to the team. The VizComm™ tracking device reported the geofence breach when one of the two suspected trailers was moved onto a recently arrived truck. Local law enforcement personnel, who had been monitoring the situation, were notified. The police department responded immediately, made an arrest, and recovered the stolen product.

Seafood Recovery

Using tracking technology embedded in a load of seafood routed from Massachusetts to California, the Sensitech C3 team helped track the cargo after it was stolen in Jackson, Mississippi. Once Miami was identified as the location of the cargo, a Sensitech Risk Management Officer located the shipment in-route and kept the authorities up to date. Within two hours, the criminal was apprehended and the shipment recovered—and using data from the tracking device, an accomplice was identified. The Sensitech team continued to monitor the shipment after it was impounded via temperature sensors to ensure that the product kept its integrity until it reached its final destination.

About Sensitech's Security Services

No matter what kind of cargo is being shipped, Sensitech's Security Services can help to ensure that it is delivered to its intended destination safely and securely with the industry's most comprehensive, end-to-end active monitoring service.

Our services help to maintain supply chain integrity by ensuring that the shipper, carrier, driver, and distribution teams secure valuable goods while utilizing the latest security best practices.

All Sensitech active monitoring services are coordinated through our state-of-the-art Global Command & Control Centers. Located in the North America, Europe, and South America, these secure intelligence and logistics centers enable Sensitech to stay in constant contact with cargo from the moment it leaves its point of origin until it is delivered to its final destination.

Other components included in the active monitoring process for each shipment are:

- Implementation, training, software, hardware, and best practices

- Web access for real-time tracking

- Web-based shipment verification and initiation

- 24/7/365 emergency response for cargo theft incidents

- 24/7/365 cargo theft recovery services

- Real-time communication between driver and dispatch

- Red zone monitoring (first 200 miles of transit route)

- Driver initiated end-of-trip notification

- Continuous program reviews

- Weekly performance reports

- Route deviations

- Monitoring and escalation of start and stop events

- Real-time monitoring for entire trip duration

- Point-to-point monitoring

CONTACT US

To learn more, contact us for more information regarding the benefits an EFS program can bring to your company.

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ABOUT SENSITECH

Sensitech Inc. is a global leader in delivering supply chain visibility solutions. Our innovative monitoring products and services help to maintain the quality, integrity and security of our customers' valuable products at every step in their journey, all around the world. For 30 years, leading companies in the food, pharmaceutical, industrial, consumer goods and other industries have relied on Sensitech to help protect their products—and their bottom lines.

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