

CX-Cargo Inspection Solutions



A comprehensive portfolio of X-ray screening systems and unparalleled integration services that keeps commerce flowing smoothly—everywhere cargo travels.

More efficient, effective cargo inspection

With threats and contraband on the rise and regulations growing in response, high-energy cargo inspection systems from L-3 Security & Detection Systems take security and enforcement to the next level. Whether your priority is stopping contraband traffic, strengthening customs enforcement or detecting explosives and weapons, L-3 will work with you to define, configure and install a cargo inspection solution that keeps commerce flowing—and meets your goals for security and compliance.

L-3 delivers the industry's most advanced cargo imaging and detection capability the ClearView[™] Imaging System—in a complete set of platforms that include mobile, portal, gantry, pallet and rail systems. These solutions can incorporate powerful features such as integrated radiation detection, optical character recognition, manifest verification, automated or remote operation, centralized image analysis and site-to-site networking, which enable facilities to maintain rigorous screening standards while maximizing the efficiency of customs and security operations. The result is higher throughput, lower cost of ownership and confidence in inspection decisions.

Recognizing diverse cargo inspection needs, L-3 solutions range from off-theshelf products to tailored systems with custom-developed capabilities that address unique, cutting-edge requirements. The architecture underlying L-3 cargo inspection systems is designed to be upgraded and enhanced to meet future customer needs.





Leading the Way in Cargo Innovation

Renowned as a leader in advanced security technologies, L-3 has a long-standing heritage in successful screening solutions and a continuous investment in innovation. Regulatory agencies and governments around the globe regularly turn to L-3 for specialized research and development assistance. This collaboration yields new products and enhancements to existing products that address customers' ever-evolving cargo screening needs. To keep cargo moving while detecting threats, contraband and misrepresented goods, inspectors need a clear view of contents-no matter how dense the cargo. They must execute multi-tier inspection protocols guickly, and be prepared for the most serious threats and violations without impacting the flow of commerce.



The Expertise and Integration Experience You Need

L-3 is a flexible, full-service system integrator that can address the most complex cargo challenges. With more than a decade of in-depth cargo experience, L-3 has become the preferred integration partner for some of the most advanced cargo inspection facilities in the world.

Our broad array of services enables us to define and deliver the solution best suited to a customer's environment and needs. Dedicated to customer success before, during and after deployment, L-3 offers needs analysis, site planning, project management, customization, installation and testing, training, maintenance and global 24/7 support in more than 80 countries.

Whether the project involves a single system or a multi-site, cross-platform integration, L-3 starts with a thorough understanding of the customer's challenges and requirements and works collaboratively to resolve tradeoffs between system capabilities, application requirements, operational necessities and cost. We recommend solutions that integrate smoothly with the customer's existing operations and infrastructure. After installation, customers count on our continuing relationship to drive system development that complies with new requirements and emerging regulations.

ClearView: best-in-class imaging

Through years of research and product development for the most demanding inspection requirements in the world hold baggage and checkpoint screening—L-3 has developed industry-leading imaging technology. ClearView leverages this experience with advanced image processing algorithms that help operators confidently assess and clear cargo rapidly. With the **ClearView Imaging System,** L-3 cargo inspection solutions optimize image clarity while maximizing analyst efficiency. An advanced X-ray scanning and image processing technology, ClearView presents the most relevant information automatically, enabling analysts to see more while manipulating less. Flexible architecture makes ClearView extensible, combining input from multiple sensors into a single display. Integrated networking facilitates sharing of data across workstations, locations and platforms, while built-in training tools help keep analysts focused and proficient.

ClearView is configurable with a range of X-ray energy levels up to 9 MeV, ensuring that customers can deploy cargo inspection systems with the ideal power and penetration for their applications. At the same time, all L-3 cargo systems ensure radiation safety while minimizing exclusion zones.



Clear Images, Faster Decisions

• Dual-Energy Material Discrimination. Operators' ability to quickly distinguish among different types of materials—organic, inorganic and metal—can streamline identification of suspicious materials. Powered by dual-energy scanning, L-3's material discrimination technology detects these differences and then provides visual information to help operators quickly spot materials that don't belong.



 DeepScan[™]. Because X-ray scans generate more information than can be seen by the human eye, operators typically make many manual adjustments to view areas of different cargo density more clearly. DeepScan image processing algorithms dramatically reduce manual steps for operators by automatically adjusting images so cargo contents are more apparent to the human eye regardless of their density. Analysts identify suspect areas and suspicious cargo more quickly and clear cargo more efficiently.

Multiple Sensors, Unified View

• Integrated Custom Workstation. L-3's cargo inspection is enhanced with additional sensors that connect using our standard interface. Common examples include radiation detection, optical character recognition, undercarriage imaging and beyond. ClearView's flexible design integrates these sensors and incorporates their input into a single customized display that enables more efficient, effective decision making. Our system capabilities can expand easily over time to support new requirements.

Connected Systems, Optimized Workflow

• Built-In Networking. Information displayed and stored by each system is available to other systems in the network, in real time. Enabling exchange of data across cargo platforms and locations, L-3's network interfaces with existing network infrastructure or works in a stand-alone capacity. With intelligent routing capabilities, these networking solutions provide maximum flexibility to support the customer's cargo inspection workflow. By configuring systems for remote and/or centralized image analysis, inspection facilities make optimal use of staff, especially for low traffic or highly variable traffic.

Continuous Training, Maximum Proficiency

• Threat Image Projection (TIP). Optimal cargo inspection decisions require cargo analysts to maintain an intense level of focus. Random projection of threat images provides on-the-job training and promotes proficiency, ensuring that cargo inspectors are ready for real threats and violations.

Configurable platforms for all applications

L-3 provides a core set of configurable platforms designed to address a wide array of cargo inspection applications. Each platform incorporates the ClearView Imaging System, maximizes space efficiency and ergonomics, withstands harsh environmental conditions and meets the most stringent radiation safety standards. By deploying multiple systems of different types, customers can optimize capacity to process cargo cost effectively.

Ports

- Customs/Borders
- Airports
- Railyards
- Military bases
- Critical infrastructure
- Event sites

L-3 cargo inspection solutions help customs and security personnel detect misrepresented and stolen goods, contraband, weapons, stowaways and other threats in cargo passing through every point of entry.



CX-Mobile





CX-Gantry



CX-Pallet



CX-Rail



Delivering high-energy cargo inspection wherever you need it, L-3's

self-contained mobile X-ray unit provides ultimate flexibility for a broad range of security and enforcement applications. CX-Mobile is ready for operation in minutes, making it the perfect solution for cargo inspection at ports, borders, military bases, events or temporary installations—wherever permanent inspection facilities are impractical or operational flexibility is critical. Designed for travel on public roads and highways, the system is available with a choice of truck options.

CX-Portal provides the highest level of

throughput, delivering high-energy cargo screening for security and customs applications while minimizing impact on operations. Enabling drive-through convenience, our CX-Portal features a multi-tier safety system that allows drivers to safely remain in the cab during scans. With a space-efficient design and adjustable scan speed, CX-Portal eliminates bottlenecks at ports, airports and other high-volume cargo inspection locations.

The most powerful cargo inspection system available, L-3's CX-Gantry sets a new performance standard. Combining full coverage and high penetration while maintaining high resolution for ultimate image quality, CX-Gantry enables maximum confidence in security and customs inspections of vehicles and cargo containers at borders, ports and highthreat facilities. CX-Gantry is also relocatable to protect your investment and works as a second-tier inspection facility in combination with CX-Portal systems.

Step up to new levels of security and efficiency with our highly configurable

CX-Pallet cargo inspection system. CX-Pallet enables airports and other shipping centers to accelerate screening of consolidated cargo in pallets, crates and ULDs by eliminating the need to unpack cargo for inspection. With powerful X-ray systems, a choice of single-view or dual-view imaging and multiple door and tunnel size options, the flexible CX-Pallet can be configured to suit a wide range of cargo inspection requirements.

L-3's CX-Rail enables safe and effective inspection of rail-based

freight in transit at ports, borders, military facilities or any other location receiving freight by rail. Built to your speed requirements and able to penetrate even the densest cargo, CX-Rail facilitates thorough inspection of fully loaded boxcars, stacked (doubleheight) cars, tankers and auto carriers. CX-Rail distinguishes among car types, even at high speeds, and scans freight cars only, keeping train crews in the locomotive safe. The relocatable system is fully automated for maximum efficiency and eliminates the need for an on-site operator.

The L-3 Advantage

A division of L-3 Communications, L-3 Security & Detection Systems is the world's leading supplier and integrator of advanced screening systems and technology. For more than 30 years, we have delivered cutting-edge systems with the flexibility, accuracy, speed and reliability needed across the spectrum of today's complex, demanding inspection applications.

With more than 20,000 systems deployed around the globe, L-3 develops and manufactures products used by the aviation and transportation industries, government and law enforcement agencies, commercial and other high-security facilities to screen people, vehicles, baggage, cargo and packages. Designed to detect explosives, firearms, drugs and other contraband, our screening products incorporate a variety of proven technologies such as 3-D computed tomography; automated, conventional and high-energy X-ray; active millimeter wave imaging; metal detection; and energetic materials detection for trace explosives.

As a flexible, full-service system integrator, we are globally recognized for exceptional commitment to customer care. L-3 leverages the strength and experience of one of the industry's largest service organizations to provide unrivaled 24/7 support of our systems and products throughout the world. From needs analysis, site survey planning, project management and financing to installation, customization, training, compliance and preventive maintenance, L-3 provides unsurpassed support at every step.



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