



CARGOPOINT

T™

Automated Trace Detection of
Explosives and WMD Threats

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ICx Technologies



DETECTION

SURVEILLANCE

SOLUTIONS

- **Advanced technology innovator, ~800 employee multidisciplinary workforce**
- **Founded in 2003 headquartered in in US, with operations in Canada and Germany**

**NEW THREATS.
NEW THINKING..**

Product portfolio

CHEMICAL

BIOLOGICAL

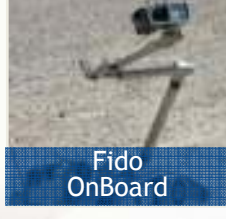
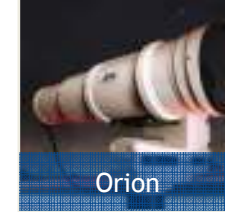
RADIATION & NUCLEAR

EXPLOSIVES

RADARS

THERMAL IMAGERS

TACTICAL PLATFORMS



Solutions

WIDE AREA



BORDERS

CRITICAL INFRASTRUCTURE



MAIL

SCREENING



FORCE PROTECTION

TRANSPORTATION



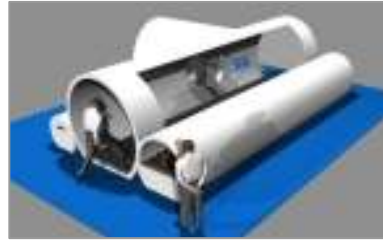
TRAFFIC MANAGEMENT



PIPELINES



AIRPORTS



CHECKPOINTS



511



BASES



PORTS



LAW ENFORCEMENT & FIRST RESPONDERS



DEPT OF TRANSPORTATION

ThreatSense™

Comprehensive Building Protection from CBRN Threats

BIOLOGICAL
AGENT
MONITORING



CHEMICAL AGENT &
CONTAMINANTS MONITORING



COMMON OPERATING
PICTURE (COP)



RADIOLOGICAL AGENT
MONITORING



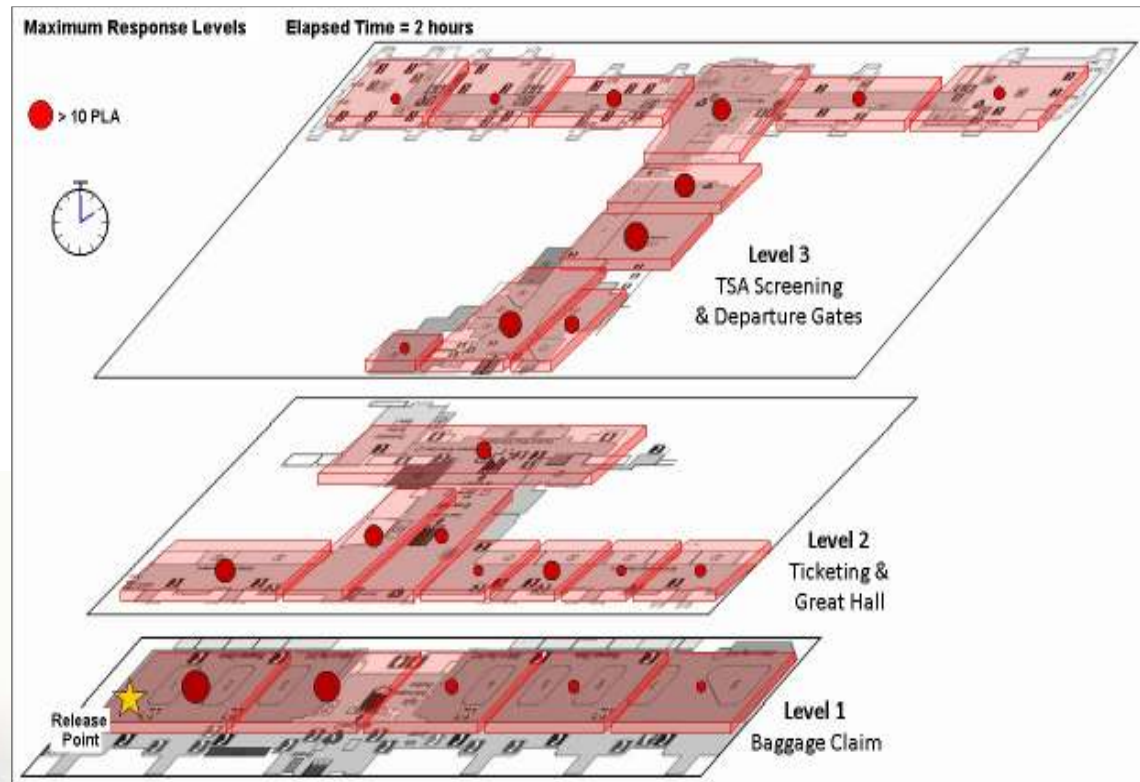
BUILDING AUTOMATION
SYSTEM CONTROL

DETECTION,
CONFIRMATION &
IDENTIFICATION

INDOOR / OUTDOOR
ENVIRONMENT

Application of ThreatSense to Airports

- Tracer particle and detection system results from a mid-sized airport shown below.
 - Completed during normal operation of the airport
 - Non-hazardous materials
- Data shown indicates concentration levels 2 hours after aerosol release



Release: 3 gm

Release: 6 gm

Cargo Screening Challenge

- Ensure all cargo is deemed safe
- Ensure supply chain velocity
 - No clog/choke points
 - Can't miss airline cut-offs
- Requires fully automatic screening of parcels and boxes
- Key to cost control is reducing labor costs



Uniform Security Measures

- Air, land and sea cargo should be subject to the same set of security regulations
- Differing regulations makes the cargo hand-off extremely difficult
 - In US:
 - CSI
 - SFI



Partnership

- **ICx Technologies**

- Leader in chemical, biological, radiological, nuclear and explosives (CBRNE) sensors
- Uniquely positioned to provide an array of field-proven detection equipment for cargo screening

- **Atlas Freight Systems**

- 12-year history providing expeditionary logistics services to the global oil and gas industry
- Developed best-of-breed procedures and practices to support oil and gas industry
- Received CCSF certification from TSA

Integrated Approach

- People
 - knowledgeable logistics personnel working side-by-side with technology developers and customers
- Procedures
 - develop a viable and sustainable business model that does not adversely impact industry and supports the security requirements established by DOD and DHS (TSA and CBP- Customs and Border Patrol)
- Leverage
 - Build off DoD and DHS investment in Fido®
 - Leverage TSA air cargo screening initiatives

- Automated, in-line cargo screening
- Provides fast, sensitive screening for:
 - Explosives
 - Nuclear materials
 - Chemical agents
 - Other threatening compounds
- Low false alarm rates
- Interfaces with industry standard inventory and warehouse management systems
- Capable of weighing, sizing and bar code reading

Predecessor: ParcelPoint System

OVERVIEW

- Parcel screening portal that integrates state-of-the-art CBRNE trace detection
- Initial prototype complete early 2008; supported by US DoD/JPEO-CBD
- Demonstrates innovative sampling technologies for explosives and chemicals



EXPLOSIVES

Fido® XT



CHEMICALS

ChemSense 600



RADIATION & NUCLEAR

Stride™



BIOLOGICALS

Dry filter and/or IBAC



Innovation: Robotic Swipe Technology

Swipe technology adapted from state-of-the-art automated box opening technology that was originally developed to reduce injuries from box cutters.



Explosives Trace Detection Analysis

- Incorporates best sensitivity explosives trace detector (ETD) technology available
 - Fido[®] XT
- Proven device with years of reliable operation
 - Deployed in both Iraq and Afghanistan for trace detection



CBRN Sensors

Griffin 600M mass spectrometer (vapor)

Stride radiation identification system

Smart conveyer system



Puffer-based bio-threat detection located in exit shroud

Optional 2-d x-ray at back end

“Smart” Cargo Screening Process

- Current technology screens up to 300 items per hour
- Automated Information Data Capture (AIDC)
- Interfaces with a number of warehouse or inventory management systems
- Reads bar codes, which can be linked to:
 - Security screening process
 - Container ID
 - Vehicle number
 - GPS antenna number
 - Driver details
 - RFID tag number

ULD Loading Operation





Break Bulk Solution

- ULDs, containers and pallets screened during their formation
- Fully-automated screening for most cargo
- Manual for odd-sized cargo
- Maintain secure chain-of-custody to airline
- Where?
 - Cross-docking operation at FF
 - Manufacturers



Field Testing



Supply Chain Integration

- Air and sea cargo screening
 - Can be used at ports to quickly screen cargo prior to being loaded into containers
 - Reducing the labor cost associated with Tier 1 false alarms
- Initial cargo loading points
 - Help ensure swift movement of cargo to its destination
- Foreign ports
 - Can be used to meet the US mandate for pre-screening of cargo loaded onto US-bound vessels



Questions?