

Facilitating & Protecting Global Commerce

CommerceGuard™
Gothenburg, April 11 2005

Eric Sandberg, CTO
ALL SET Marine Security AB



Cho Jung-Ho / AP

Agenda

1. Introduction of All Set Sweden – Technology Provider
2. General Electric (GE) – Stakeholder & Solutions Provider
3. Multi-Generation Commitment
 - CSD for Legacy Fleet
 - TESC for New Containers
 - ACSD for Expandability
 - ATESC Future Containers
4. Questions

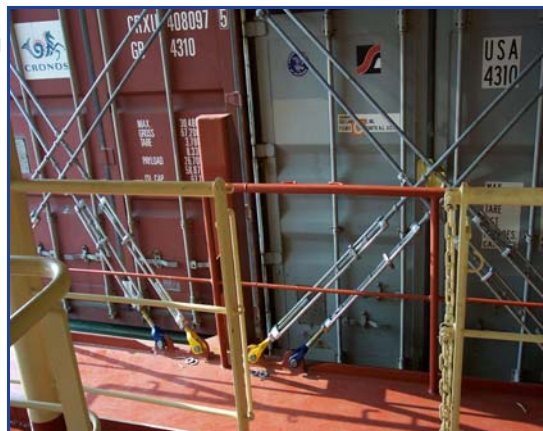


All Set Marine Security

• All Set Marine Lashing is Swedish-based leading provider of container lashing & twist locks to major container shipping lines

• Technology platform based on Bluetooth derivative initially developed at Ericsson 1999-2001.

• Ericsson Spin-out in 2002: All Set Marine Security AB was founded



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GE / All Set Partnership

GE Recognized an Ingenious Solution that is:

- Economical – Low cost, “productive security”
- Effective – CBP* Smart Box and OSC* tests
- Extensible
 - Addresses both Legacy Fleets and New Containers
 - Bus design allows for additional applications
- Easy to Use – RF for handheld and fixed reader



GE Holds Exclusive Technology License

GE partnered with All Set to:

- Complete System Development
- Produce Quality Hardware and Software
- Deploy Global Infrastructure & 24x7x365 Operations



*)CBP-Custom s Border and Protection ,OSC - Operation Safe Commerce

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GE Is A Large Stakeholder....

Global Business

- More than 300,000 employees; Ops in 100+ Countries;
- \$175 Billion annual revenue rate

Leading Shipper

- Over 140,000 transoceanic TEUs per year

Leading Facilitator Of Trade

- GE SEACO: UK-based Lessor of 1 Million TEU
- GE Capital : Ships & Maritime Insurance

C-TPAT* Participant

- Member since March 2003; completed validation visits
- Chairman, International Chamber of Commerce Commission on Customs and Trade Regulations



*) C-TPAT - Customs Trade Partnership Against Terrorism

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....And Leader In Security Technology

Help protect people, property and communities

Recognized as advanced technology and innovation leaders

Global operations > 30 countries

3,400 employees worldwide

\$2B annual revenues

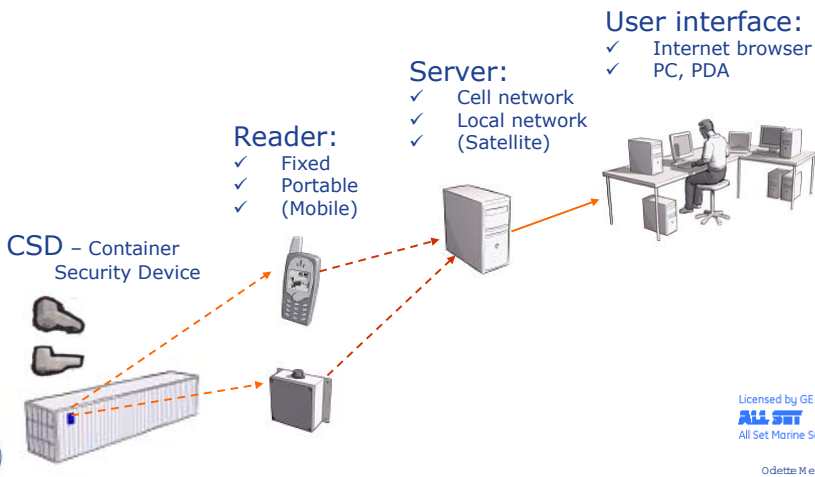


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Marine Security

System architecture - overview



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CSD (Container Security Device)

1. Intrusion Detection
2. Container Location Tracking
3. Connection to other sensors



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CSD: Retrofit installation

Installed in seconds

Requires no tools

Permanent or temporary mounting

No recycling

No tampering

Does not either rely on "weak" door hasp mechanism nor interfere with traditional indicative seal use by shippers

CSD: technical spec

Frequency	2.44 GHz (ISM worldwide license free)
Modulation	Direct Sequence Spread Spectrum
Bandwidth	23 MHz broadband
Reading range	100 ft. (tuneable up to 300 ft.)
Duty cycle	0.03%
Power supply	1 AA Li battery (10 years)
Data bit rate	1 Mbps
Data memory	2 KB read/write
Sensor interface	RS232 (standard), RS485 (option)
Environmental	ISO 10374 compliant



What are the **criteria** for universal use of maritime container security devices?

- **Global applicability** without radio regulatory problems
- **Permanent feature** of either new or legacy containers, not an add-on accessory—no recycling
- **Economical** enough for everyday, ordinary commercial use for **both loaded and empty containers**
- **Easy** to apply & integrate in business processes while respecting need for **business data privacy**
- **Both physically and electronically secure**
- **Non-proprietary expandability** to accommodate internal sensors and other future technologies



Are there any truly global and license-free frequencies today?

	433.92 MHz	862-928 MHz	915 MHz	2.4 GHz
Europe + South Africa	Yes	Yes	No	Yes
USA	Yes	No	Yes	Yes
China	No	No	No	Yes
Japan	No	No	No	Yes
Malaysia	No	No	No	Yes
Hongkong	Yes*	No	No	Yes
Singapore	No	No	No	Yes
Korea	No	No	No	Yes
Other Asia	No	New Zealand	Australia	Yes



imagination at work

*) Pending and limited

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CommerceGuard™ Objective: Security With Productivity

Leveraging GE Strengths...

- High Volume Manufacturing
- Global Deployment and Support
- Commercializing Innovation
- Integrating Proprietary Technologies

... To simultaneously ensure supply chain integrity, enhance efficiency and meet forthcoming US Customs Green Lane incentive guidelines



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Commercialization: Legacy CSD

Features

- 99%++ Reliability
- Easy to install and use
- Low Cost Solution
- Extensible platform for future expansion

Ongoing

- Design for high volume manufacturing with configuration management and Six Sigma
- Ensure system reliability by testing CSDs in GE trade lanes



Commercialization: Integrated CSD

Features

- 99%++ Reliability
- OEM availability in new containers through CIMC
- Low Cost Solution
- TESC platform for future sensors
- Ensure infrastructure compatibility with legacy CSD's



Commercialization: Handheld readers

Features

- Ruggedized handhelds with intuitive software
- Economic solutions for supply chain
- Uninterrupted business flow



Commercialization: Fixed readers

Features

- Com Unit enable automated processing without human intervention
- PC-client enable manual processing replacing handheld readers
- Economic solutions for supply chain
- Uninterrupted business flow
- Provide Container Location Data



Commercialization: Fixed readers

Installation requirements

- Fixed reader installed within 30 m from container path
- Line of sight between fixed reader and CSD

Com Unit:

- Power requirement 100-240 VAC
- Power consumption less than 10 W
- GSM/GPRS coverage

PC client:

- Readers connected to LAN or local PC
- Internet connection through LAN or GPRS PC card



Commercialization: Fixed readers



Events for CSD with id: "010000000000346"

Container Id	Date and Time	Reader Id	Reader Location	Status	Door	Alarm
MSKU1234567	2004-10-23 04:55:29	01000224	Distribution Center	Armed	Closed	No
MSKU1234567	2004-10-18 02:46:09	01000223	Newark Terminal Exit Gate	Armed	Closed	No
MSKU1234567	2004-10-06 10:23:33	01000222	Rotterdam Terminal Entry Gate	Armed	Closed	No
MSKU1234567	2004-10-06 08:03:23	01000221	Factory Exit Gate	Armed	Closed	No
MSKU1234567	2004-10-06 07:37:03	01000220	Loading Dock	Armed	Closed	No

Commercialization: System Backbone

Features

- 24 x 7, secure, redundant, data center
- Scalable to millions of transactions with distributed architecture
- User friendly online interface and reports

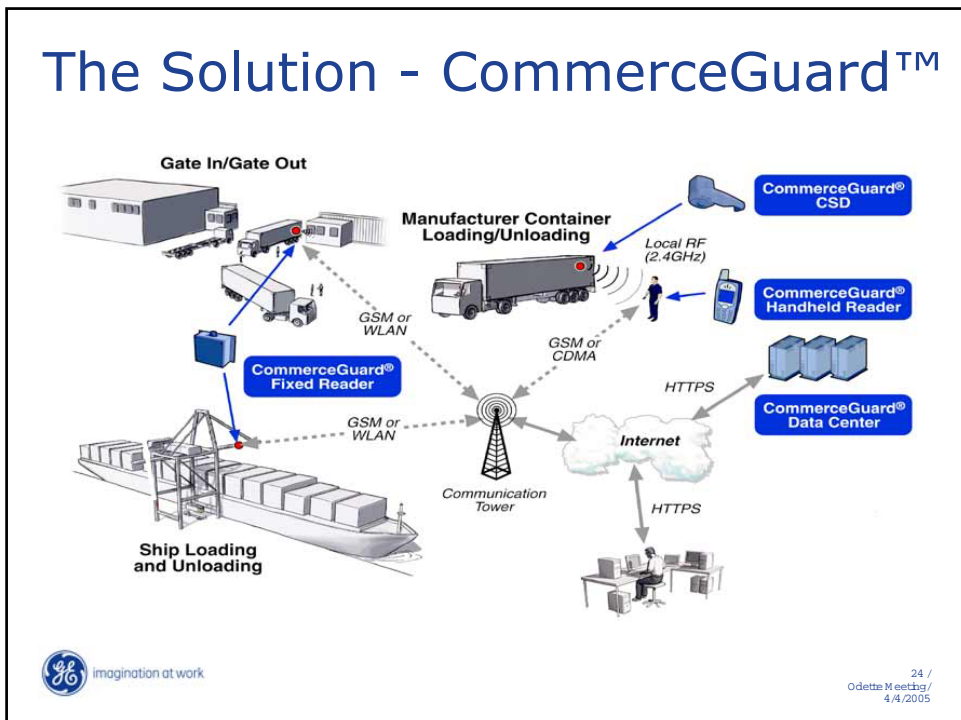


Commercialization: Deployment

Features

- Large scale deployment
- Rapidly deploy and install reader infrastructure
- Build high volume CSD manufacturing capacity
- 24 x 7 x 365 Support
- Uninterrupted supply of products and services





Tamper Evident Secure Container (TESC)

- Joint development between GE / All Set and China International Marine Container (CIMC)
 - CIMC is largest new container manufacturer with >50% global market share
- Introduction of new CommerceGuard TESC product line
 - Integrated CSD
 - Mechanical design security enhancements
 - Integrated sensor bus
- UNISYS provided systems integration services and oversaw the deployment of the first field test project, Jan 2005.
 - Greg Baroni, president, Unisys Global Public Sector:
 - *"We've tested many container security technologies and the container security device is the current gold standard."*



CIMC

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UNISYS

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CIMC

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CBP "Smart Box" - 4 elements

1. C-TPAT shipper/carrier
2. CSI* port of embarkation (preferred)
3. Mechanical seal per ISO PAS 17712 in approved location:
 - SecureCam
 - "Pardo hole"
 - "P&O lock",
 - Cable seal / "hand cuff" seal through locking bars
4. Container Security Device (CSD)



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*)CSI- Container Security Initiative

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Emerging New C-TPAT guidelines

IF a shipment meets 4 requirements:

1. Parties in supply chain are C-TPAT members, *and*
2. Embarkation port is a CSI* port, *and*
3. "High security" mechanical bolt seal meeting ISO PAS 17712 is applied in approved location, *and*
4. Qualified container security device (CSD) is in use,

THEN your container will receive

green lane Customs administration



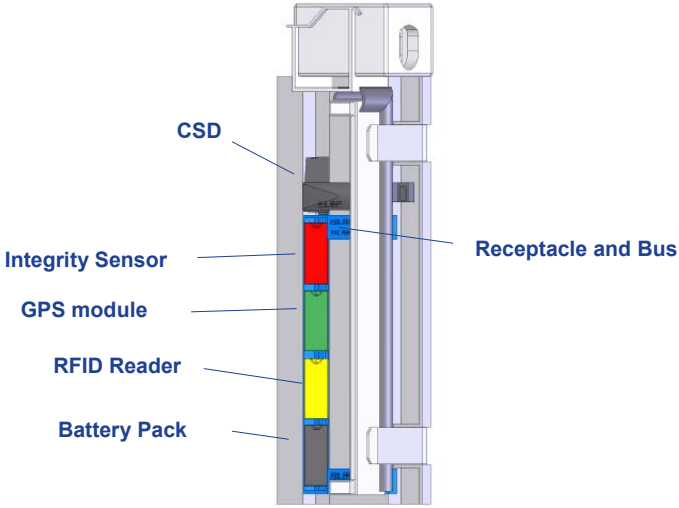
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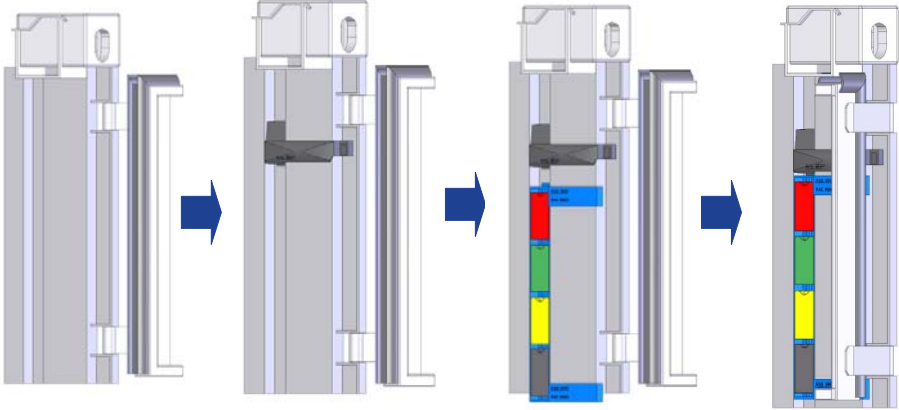


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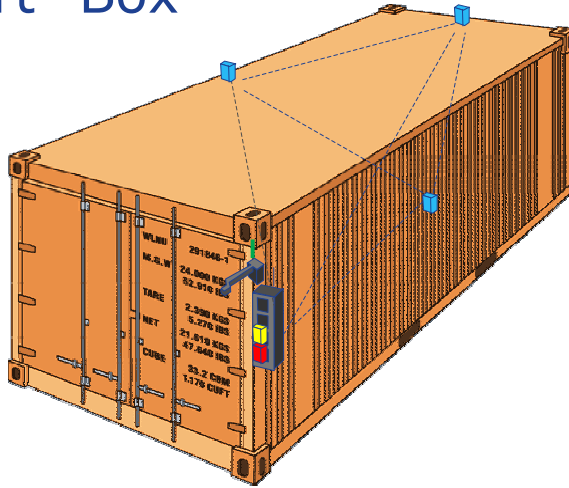
CSD Expandability for the Future



Retrofit Installation

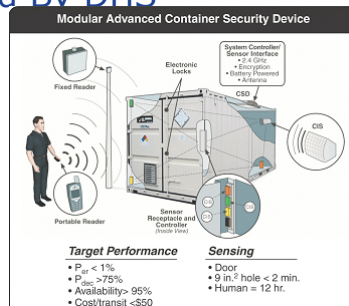
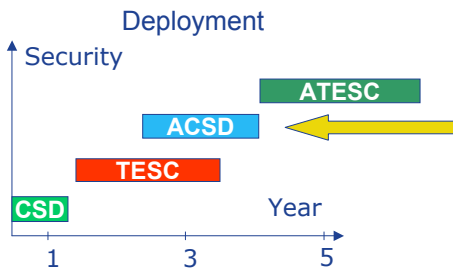


Communication inside the "Smart" Box



Long Term Commitment To Maritime Container Security

- Solutions For Legacy & New Containers
- Global, Scalable, Affordable Solutions That Provide ROI
- Six Sigma Reliability & Tested By DHS*



*)DHS – Department of Homeland Security

Supply chain efficiency – included

- A typical supply chain was mapped;
 - ✓ Preliminary time savings estimated => 36 minutes per move
 - ✓ 2 million moves per year => 75 man-years!



Thank You for your
attention...
Questions?

eric.sandberg@allset.se

www.allset.se/security or
www.gesecurity.com/csd

