



“Emerging Technology Trends in Theft Protection”

Transported Asset Protection Association – Americas

2022 T1 National Cargo Theft Conference

Presenter

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“Emerging Technology Trends in Theft Protection”

Topics for Discussion

- Enhanced Metals & Resisting Common Breach Methods
- Tracking & Monitoring Solutions Resistant to GPS Jamming Technology
- Digitizing Bills of Lading, Proof of Delivery, Gate Activity & Other Key Data
- Related Impacts on Security, Investigation & Compliance



Emerging Technology Trends in Theft Protection (Pilferage is on the Rise)



'Pilfering' now the crime of choice among cargo thieves!!!

Fleet Owner Magazine, June 10, 2022

- Data shows that “pilferage” (**stealing of portions of a load vs entire trailer loads**) is trending upwards, especially in the “**last mile**”.
- Pilferage theft is often not reported and there is no record of where or when it happened.
- Drivers may not know a pallet may be missing from a full truckload until unloaded / counted.
- Integrated tracking, monitoring, hardened access systems, shipment tampering verification tools and cooperation with law enforcement can mitigate these issues.

<https://www.fleetowner.com/safety/cargo-securement/article/21243973/pilfering-now-the-crime-of-choice-among-cargo-thieves>

Emerging Technology Trends in Theft Protection

Asset & Cargo Security Models Need to Change! *“Reaction is Not Prevention”*



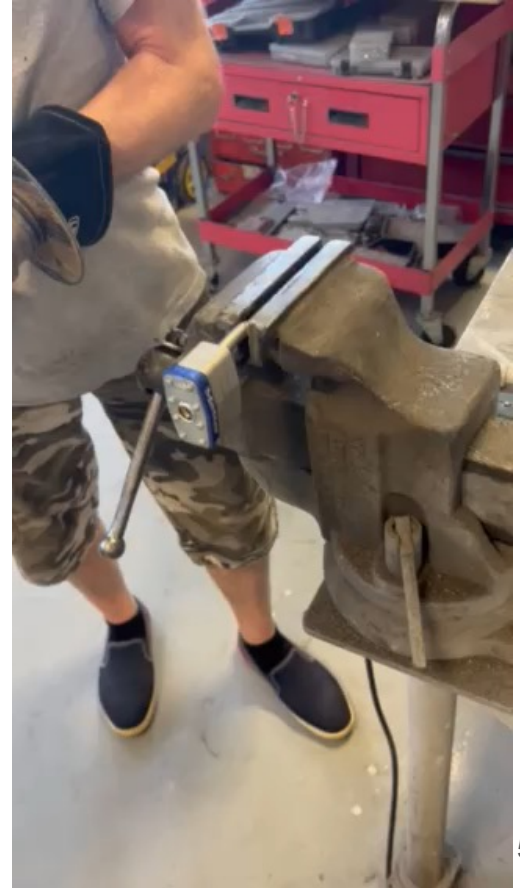
Excerpts from December 2021 Union Pacific Railroad letter to LA County District Attorney:

- Over 160% increase in rail cargo theft in LA county since December 2020
- On average, more than 90 containers compromised each day
- In months during that period, increases over prior year surpassed 200%
- For October 2021, estimated an increase of over 356% compared to the year before

Emerging Technology Trends in Theft Protection (Mixed Metals & Resisting Common Breach Methods)



- Cutting a Hardened Padlock in Seconds



Emerging Technology Trends in Theft Protection (Mixed Metals & Resisting Common Breach Methods)



- Grinder Not Cutting Mixed Metals



Emerging Technology Trends in Theft Protection (Mixed Metals & Resisting Common Breach Methods)



- Defeating Commonly Used Breach Methods



Emerging Technology Trends in Theft Protection (Solutions to Defeat GPS Jamming & Detection)



- GPS Jamming & Signal Detection Tools

The Federal Communications Commission fined a Readington man nearly \$32,000 after concluding he interfered with Newark Liberty International Airport's satellite-based tracking system when he used an illegal GPS jamming device in his pickup truck to hide his whereabouts from his employer. He was fired.

Disrupting satellite signals can hinder air traffic controllers' ability to receive accurate information about a plane's location in the air and on the runway.



<https://www.scientificamerican.com/article/truck-driver-has-gps-jammer-accident-2013-08/#:~:text=As%20the%20New%20Jersey%20Star,also%20fired%20for%20his%20misdirection>

Emerging Technology Trends in Theft Protection (Solutions to Defeat GPS Jamming & Detection)



- Industry Blog Comments for Defeating GPS Jammers

GPS Jamming Detection

The GPS module in newer units have a jamming detection function that will trigger the device to report a debug log. Fleet managers can see this in the log details.

Set up Alerts for GPS Jamming

Users can automate detection by creating a Log Data & Collisions report and setting it to be sent only when at least one event is detected. When GPS jamming occurs, these reports can be sent via email as an alert, prompting further investigation.

It is important to note that even when a GPS jammer disrupts GPS receiver functionality, all other functions are unaffected. Despite the lost GPS connection, newer device will continue to gather and send critical vehicle-related data such as engine data, error codes and auxiliaries.



Emerging Technology Trends in Theft Protection

“On – Demand Locator 1” (ODL1)

(GPS Jammer & Detection Resistant Tracking / Monitoring Technology)



Track & Locate Assets & Cargo
Resists GPS Jamming & Detection!!!



Small / Easily Concealed
3” L x 2.9” W x 0.9” H

Whenever you want ...

Only tracker on market with 'on demand' location

- Finds your asset whenever you want
- No waiting for device check-in
- Replaces hours or days to report location

Wherever it is...

Multiple technologies result in reliable locations

- Unlimited use cases
- Inside or outside
- Wi-Fi, Polte, GPS, BLE
- Overcomes GPS Jamming & Detection

Guaranteed...

2+ year battery life per battery

- Power optimization for long life battery
- Low battery alerts & configured sensors
- Motion, temperature, humidity & more
- Multiple battery options

Emerging Technology Trends in Theft Protection (Easy to Use Interface – ODL1 Device Location Steps)



- Highlight the device you want to locate.
- Selector buttons provide a more precise location and or a quicker response
- Highlight the device you want to locate press the appropriate 'locate' button.
- You will see a 'command sent' notification at bottom right of the screen.
- When device found, device row indicates status, and you can see the location on the map.
- Capability to zoom in and out, change the map type with various functionality buttons
- "Device State Block"

Emerging Technology Trends in Theft Protection (Easy to Use Interface – ODL1 Device Location & Status)



Devices

Name	Last Update
Babaco-160245	4 minutes
Babaco-158234	

State

Attribute	Value
Time	2022-01-25 17:14:53
Latitude	40.673073°
Longitude	-73.982967°
Valid	Yes
Accuracy	16.00 m
Altitude	0
Speed	0.0 km/h

Map

Locate Buttons

Device State Block

Emerging Technology Trends in Theft Protection

(Device State Block – Last Report Status Characteristics)



The Device State Block:

- This block displays the attribute values for the selected device which was located

Longitude	-73.982967°
Speed	0.0 km/h
Accuracy	16.00 m
Time	2022-01-25 17:14:53
Device Temperature	24.4 °C
Battery	3.48 V
Address	305 5 Avenue, New York, New York, US
Latitude	40.673073°
Battery Level	86.2 %
Course	N
Valid	Yes
Altitude	0
Location Source	wifi

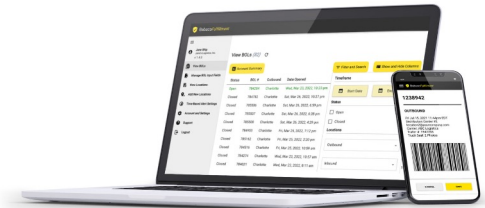
Emerging Technology Trends in Theft Protection

(Digitizing Supply Chain Data – Supports Security & Compliance)



Mobile applications with the ability to support iOS, Android & modern web browsers, powerful & easy-to-use digital enterprise shipment management platform:

- Digitizes “**Bills of Lading**” at your terminal, gatehouse, or distribution center
- Provides real-time & historical insight into your inbound & outbound process
- Verifies that assets get to their destinations on time with matching documentation
- Notifications to your administrators of unexpected changes or possible loss while in transit
- Supports internal & governmental regulatory compliance
- Maintains critical historical data for analysis as needed
- Easily configured to match your specific needs



Emerging Technology Trends in Theft Protection (Digitize Bills of Lading & Proof of Delivery)



 Quickly digitize the delivery information you care about & retrieve your records for any purpose!!!

- Legal
- Insurance
- Compliance
- Investigations
- Chain of custody verification
- Early identification of fraudulent activities
- Or simply real-time awareness of in-field variances

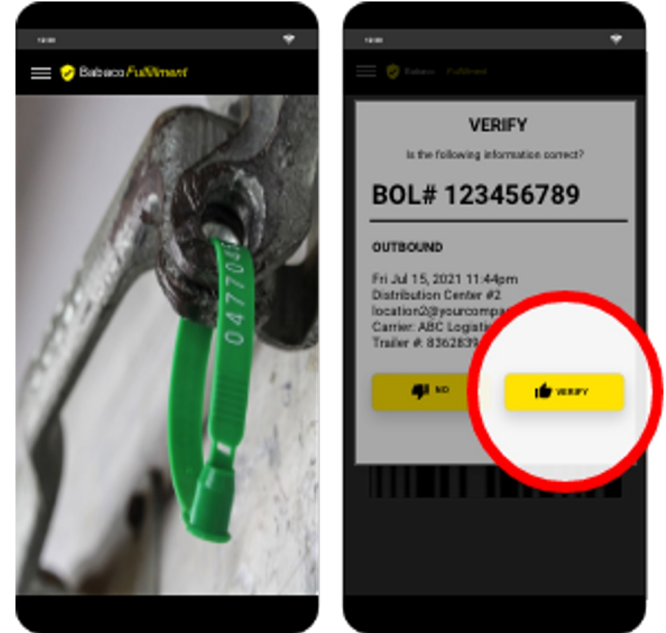


Emerging Technology Trends in Theft Protection (Verify Safe & Secure Delivery & Automated Data Retention)



With one tap, reduce the time it takes to verify your requirements:

- Your assets are intact & untampered with
- Arrived at the correct location with documentation
- On time given route characteristics
- Consolidated view of selected verification data
- Retention of historical data as needed
- Assists in “Fraud Detection”



Emerging Technology Trends in Theft Protection

(Application Elements, Features & Benefits)



Digitize Bills of Lading



Verify Secure Shipment & Delivery



Customize Data Input



Set Time-Based Alerts



Receive Email Notifications & Alerts



End-to-End Team & Asset Oversight



Business Intelligence & Deep Search Capabilities



Easy-to-Use Interface



Secured Data Encryption



Use Your Devices / No Expensive Hardware



Asset & Document Storage



Integrated Cloud Based Web-to-Mobile Platform



Flexible Pay-As-You-Go Payment Plans



Supports internal & regulatory compliance

(Emerging environmental regulations – ISR)

Emerging Technology Trends in Theft Protection

(Mobile Application Digital Conversion – Features & Technology)

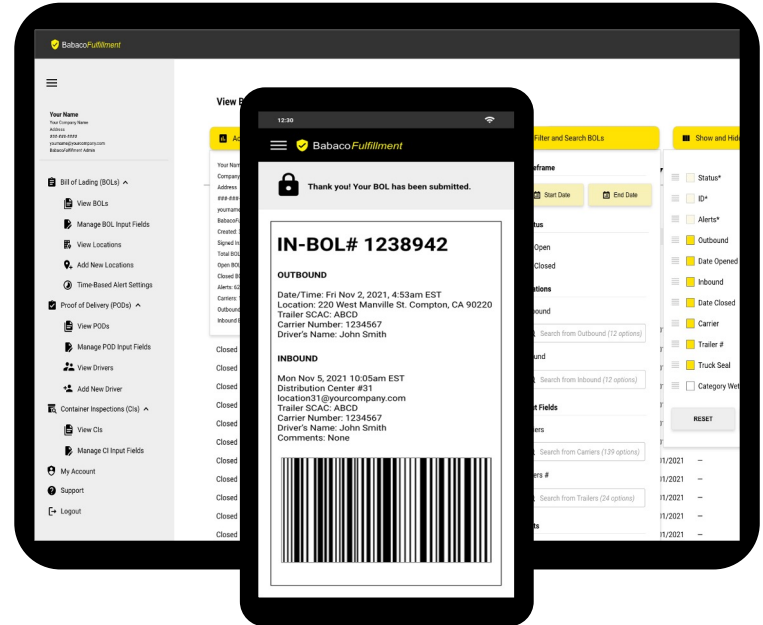


Features

- Trailer, Container & Vehicle Inspection Reports
- Digital Proof of Deliveries (PODs)
- Driver & Contractor Management
- Time-Based Alerts for Issue Tracking
- Distribution Center & Gatehouse Oversight
- Download & Email Reports
- Indirect Source Rule (ISR) Reporting Compliance

Technology

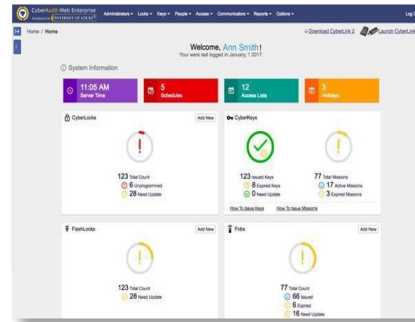
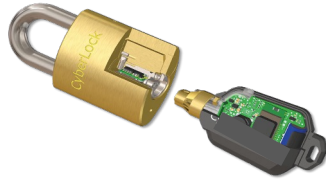
- Deep Search & Data Filtering
- Cross-Platform Syncing with Instant Notifications
- Available on Android, iPhone, Tablet, & All Web Browsers
- Geo-Location
- Photographic Proof of Proper Loading Practices
- Signature Verification
- Barcode Scanning
- Security and Encryption
- 24/7 Availability



Create functionality and reports specific to exact needs.

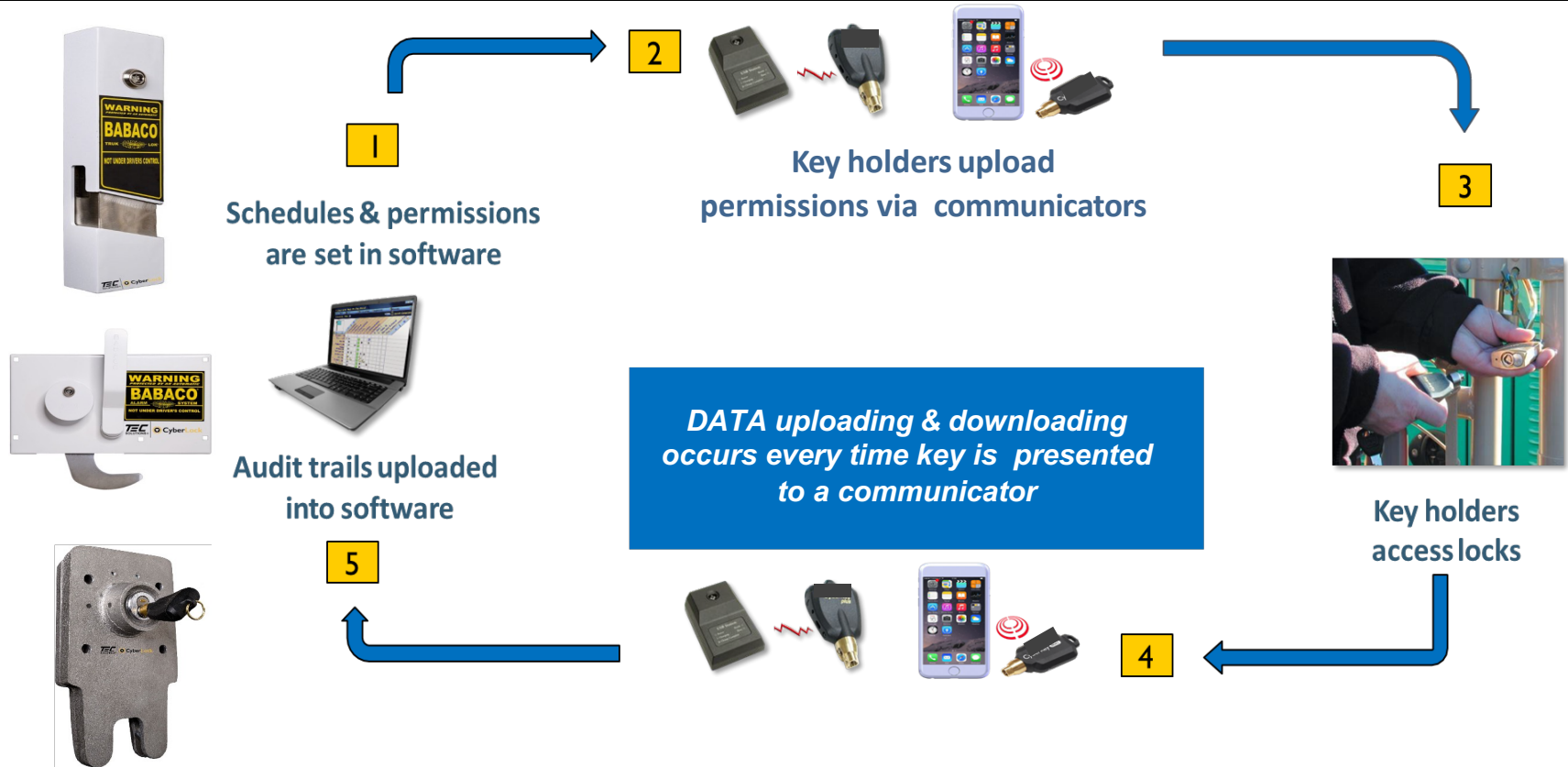
Emerging Technology Trends in Theft Protection

(Electronic Locks & Keys - Functions Like Programmable Access Cards)



- 400 lock designs & growing
- Each Lock & Key has a unique ID
- Decreased risk due to lost keys
- Latest compliance audit trail
- Higher level of security
- Better key control
- Configurable applications & reporting
- Authorization via Bluetooth & USB
- Mobile on demand access programming
- Encrypted access codes
- Android and iOS compatible
- Data integration capabilities
- Programmable controls & security features
- Van, truck, trailer, container, & cargo

Emerging Technology Trends in Theft Protection (Electronic Locks & Keys – “How It Works”)





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THANK YOU

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