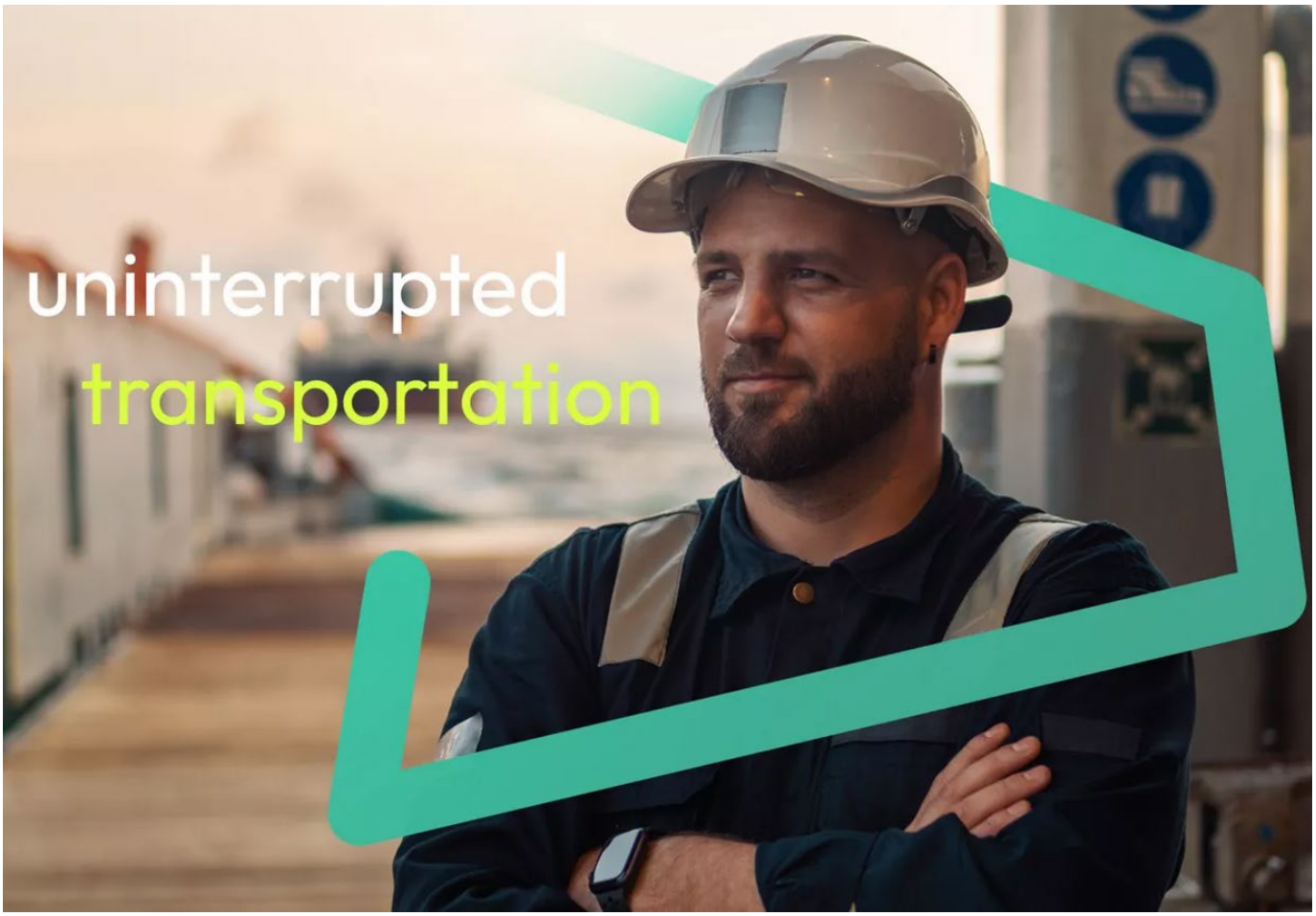


securing the supply chain:

understanding physical security guidelines for road transportation and logistics in North America

ALCEA
ASSA ABLOY



when the supply chain is at risk, security isn't optional

With cargo theft rising at record rates and regulatory pressure mounting, road transportation and logistics firms face a critical security crossroads. More than $35 billion in annual losses are projected from theft and tampering, making physical security not just a compliance issue, but a business imperative.

the rules are changing.
and so must your locks.

The trucking and logistics industry doesn't yet operate under a single, unified security rulebook like other critical infrastructure sectors such as water, electric utilities, or oil and gas do with clearly defined protection mandates. Instead, you're navigating a complex and growing patchwork of federal regulations, customer-driven expectations, and trade association guidelines.

But make no mistake: the regulatory tide is rising.

Between increased cargo theft, cybersecurity risks, and mounting pressure from shippers and insurers, the industry is heading toward more formalized security requirements. Waiting until mandates are in place may put your business behind the curve. Ignoring what's already expected today risks fines, lost contracts or worse, stolen cargo.



know the rules: who's setting the standard for freight security?

Here's what you need to know and why smarter locks are no longer optional:

C-TPAT (Customs-Trade Partnership Against Terrorism)

Who's Impacted: Cross-border carriers, 3PLs, import/export firms.

What It Demands: Secure facilities, tamper-evident trailer seals, visitor logs, and auditable locking systems.

Why It Matters: Big shippers require C-TPAT compliance. Without it, you're out of the running for high-value contracts.

ALCEA Solution: ABLOY CLIQ® and BEAT™ provide digital access logs and secure trailer locks, ensuring you pass audits and win RFPs.

FMCSA Cargo Securement & Hazmat Rules

Who's Impacted: All U.S. highway carriers, especially hazmat haulers.

What It Demands: Approved securement devices, restricted cargo access, and proof that only authorized personnel touch sensitive loads.

Why It Matters: DOT inspections enforce these rules. Violations mean fines or route disqualifications.

ALCEA Solution: Audit trail padlocks track who opens cargo doors, protecting you from liability and inspection failures.

PHMSA & DOT Hazmat Requirements

Who's Impacted: Hazmat carriers.

What It Demands: Written security plans, restricted facility and vehicle access, and annual reviews.

Why It Matters: Non-compliance can halt operations or delay shipments.

ALCEA Solution: Centralized access platforms deliver real-time control and audit-ready logs.

TSA Surface Transportation Security Rule

Who's Impacted: High-risk fleets (e.g., hazmat, public transit contractors).

What It Demands: Security coordinators, incident reporting, and access control policies.

Why It Matters: These rules signal tighter regulations coming for all carriers. Get ahead now or play catch-up later.

ALCEA Solution: CLIQ® and BEAT™ enforce access policies and log events for fast incident response.

Voluntary Standards (TAPA, IRU)

Who's Impacted: High-value cargo haulers and growth-focused fleets.

What They Recommend: Electronic locks, event logging, and multi-layered security.

Why It Matters: These standards are your ticket to premium contracts and lower insurance costs.

ALCEA Solution: CLIQ® and BEAT™ align with TAPA and IRU, giving you a competitive edge.

The Bottom Line: Locks Are Your Business's Front Line

If you're still using basic mechanical padlocks and keys, you're gambling with your operation. Today's threats, sophisticated thieves, picky shippers, and eagle-eyed auditors, require locks that don't just stop intruders but prove who accessed what, and when. ALCEA's portfolio of smart locks and devices deliver that proof without breaking the bank.

how vulnerable are today's carriers?

A Clear Target in an Evolving Threat Landscape

Over-the-road carriers, logistics firms, and trucking operators face mounting exposure to theft, tampering, and compliance gaps. Despite handling billions in goods daily, many firms remain under-secured.

Here's why:



1. Cargo Theft Is Surging

- Nearly 3,800 thefts reported in 2024
- Estimated losses: $35B
- Estimated average value of individual theft: Greater than $202,000
- High-value targets: electronics, food, pharmaceuticals
- Hotspots: truck stops, distribution centers, yard perimeters

Many fleets still rely on simple mechanical padlocks, offering little traceability or deterrence.

2. Fragmented Security Standards

- No unified federal rulebook (unlike NERC CIP for utilities)
- Carriers must navigate C-TPAT, FMCSA, PHMSA, TSA, and voluntary programs like TAPA
- Security practices vary widely, even across similar fleets

Gaps in security maturity are common and easily exploited.

3. Physical Access Blind Spots

- Unsecured trailer doors, cab access, and dock gates
- Manual key tracking remains the norm
- No audit trail = no accountability

Can't prove who accessed what and when? That's a business liability.

4. Pressure from Shippers and Insurers

- High-value customers now demand audit-ready security
- Insurance carriers are factoring physical controls into coverage decisions

Weak security could cost you your best contracts or increase your premiums.

5. The Cyber-Physical Convergence

- Telematics, dispatch, and mobile access expand the threat surface
- Cyber-enabled theft tactics are on the rise
- Physical access control is a key defensive layer

If your locks don't log events, your system isn't future-proof.

Bottom Line: Trucking firms are high-value, low-defended targets.

Without a modern access control strategy, fleets risk losses, compliance failure, and reputational damage. Audit trail-capable locking systems close the gap.

where audit trail-capable locks belong in a transportation operation

Security isn't just about locking doors. It's about knowing who's opening them and having the evidence to back it up. Here's where audit trail-capable locks can fit in your operation and why they're worth the investment.



Facility Security: Lock Down Your Weak Spots

Main Entrances/Exits:

Secure these with ABLOY PROTEC^2 CLIQ® locks that log every entry and exit. Remote credential control means no more lost keys or unauthorized access.

Restricted Zones:

Server rooms or high-value inventory need programmable locks that track every access attempt, protecting against insider theft.

Loading Docks:

These are theft hotspots. Electronic locks ensure only authorized staff get in, and you'll know exactly who did.

Perimeter Gates:

Automated logging at vehicle and pedestrian gates ties every entry to a specific person, critical for audits and incident response.

Visitor Management:

Digital logs for visitors ensure transparency and compliance with C-TPAT and TSA rules.

Fleet Security: Protect Your Cargo on the Move

Trailer Doors:

Smart locks like ABLOY BEAT™ log every access event, deterring theft and proving compliance for C-TPAT or TAPA.

Cab Doors:

For high-risk loads, lock cabs with audit-capable systems to track driver access and support route audits.

Side Doors/Access Panels:

Secure urban delivery points with electronic locks to prevent tampering during multi-stop routes.

Reefer Controls:

For temperature-sensitive cargo, lock reefer panels to maintain integrity and document access in case of spoilage claims.

Toolboxes/Compartments:

Secure underbody or frame-mounted boxes with audit trail padlocks to protect valuable gear.



smart locks don't mean replacing everything

As fleet and facility operators explore audit trail-capable locks, one question naturally arises: do we really need electronic locks on every door, gate, or cage? The answer is no, and applying the right tool for the job is just good operational sense.

Mechanical padlocks still play a vital role in modern logistics security. In fact, a well-designed security plan blends both mechanical and electronic locks, based on risk level, compliance need, and practical constraints. Use this simple assessment to guide your decisions:

Risk Category	Example Locations	Recommended Lock Type
High Risk	Trailer doors, server rooms, facility main entrances, restricted zones	Electronic (audit trail)
Moderate Risk	Inventory cages, tool rooms, secondary access points	Electronic preferred; mechanical acceptable with supervision
Low Risk	Maintenance closets, landscaping sheds, temporary storage	Mechanical padlock

Audit trail locks shine in areas where compliance, traceability, and liability protection are priorities.

Mechanical locks are ideal where simplicity, durability, or budget take precedence and risk is minimal.

Combining both lock types, managed under a central access platform like CLIQ Web Manager, lets you scale your security investment strategically, not universally.



how ABLOY CLIQ® and BEAT™ meet the moment.

You may be skeptical about pricier locks, and we get it. The increasing demands of the road transportation sector, rising theft risk, tightening regulatory standards, and the need for better operational visibility, call for a new generation of physical security systems.

ALCEA, powered by ABLOY technology, delivers two proven technologies built for this exact challenge: PROTEC² CLIQ® and ABLOY BEAT™.



ABLOY PROTEC² CLIQ®

ABLOY PROTEC² CLIQ® combines ABLOY's globally trusted mechanical locking technology with intelligent electronic access control. With CLIQ, fleet and facility operators can remotely assign and revoke access rights, monitor key usage in real-time, and generate a full audit trail of every access event.



ABLOY CLIQ Web Manager

ABLOY CLIQ Web Manager, the system's browser-based interface, gives fleet administrators total control over who can access which assets and when. For mobile crews or remote locations, the CLIQ Connect app allows users to update key permissions from anywhere via Bluetooth.

This hybrid system allows logistics firms to upgrade security without replacing every lock. Mechanical and electromechanical padlocks, door cylinders, cam locks, and cabinet locks can all be managed within the same digital platform, delivering a scalable solution that aligns with both operational realities and compliance mandates like C-TPAT and TAPA FSR.

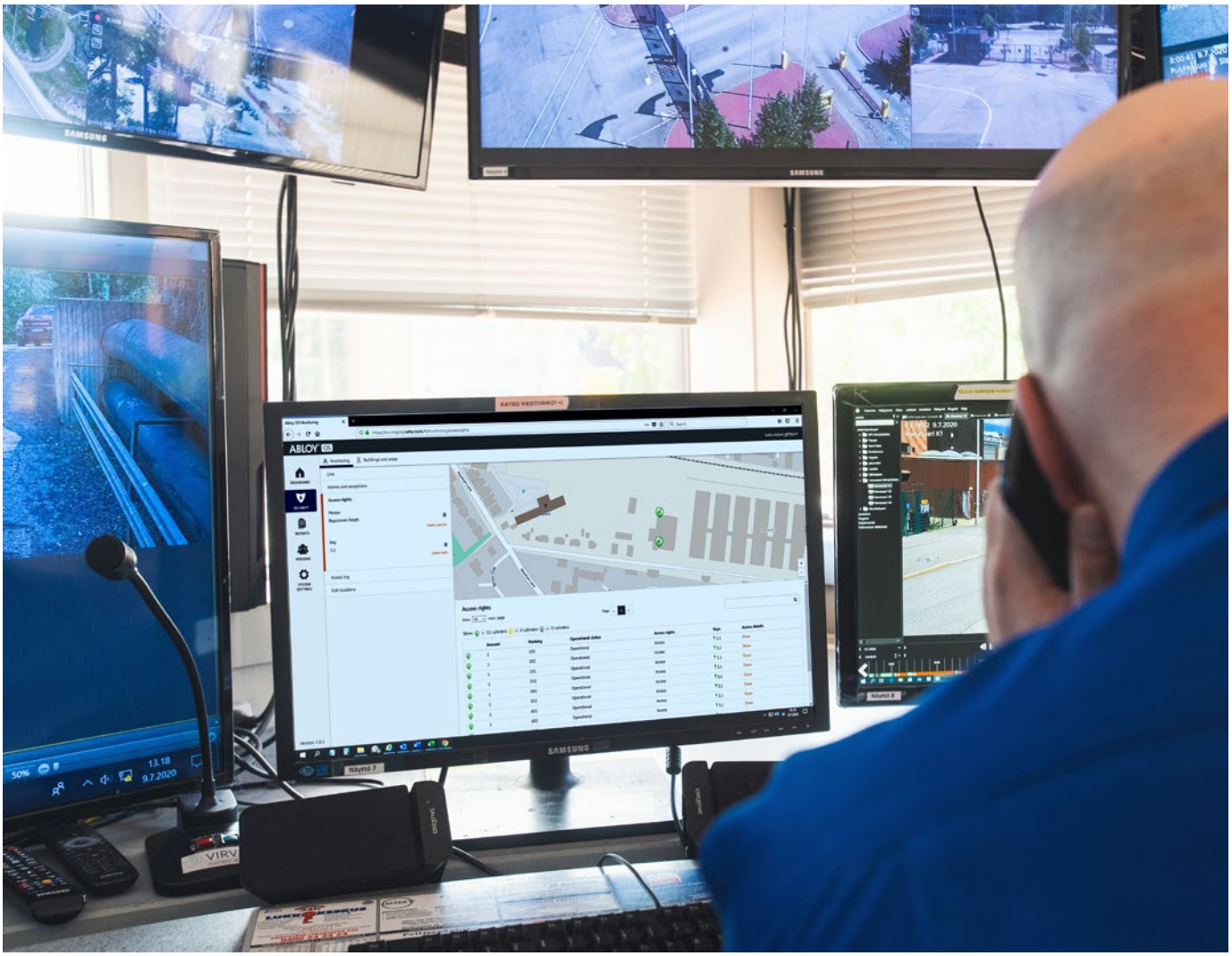


ABLOY BEAT™

ABLOY BEAT™ takes access control one step further by offering a fully keyless, mobile-first solution. Designed for rugged, high-risk environments, BEAT padlocks connect with smartphones via a secure app and can be integrated with many security supervision platforms.

Locks can even be restricted to specific geofenced locations, ensuring that only the right person, in the right place, at the right time, can gain access.

Whether used independently or together, CLIQ and BEAT provide unmatched flexibility, auditability, and durability, proven in the most demanding conditions across road fleets, warehouses, yards, and intermodal facilities. These technologies don't just help logistics operators keep up with compliance. They give them a competitive edge in a fast-evolving security landscape.



the business case: why smarter locks pay off

At first glance, electronic locks with audit trail capabilities may appear costly compared to traditional mechanical padlocks. But in today's logistics environment where theft, compliance, and customer expectations are growing more complex, the real question is not whether audit-capable locks are too expensive, but whether your business can afford to operate without them.

You're not here to spend money on shiny gadgets. You want solutions that save cash, protect cargo, and keep customers happy. Here's what makes ALCEA's audit trail locks a worthwhile investment.

Stop Theft Before It Drains You

Cargo theft hit $455 million to $1 billion in 2024, targeting electronics, pharmaceuticals, and food. Unsecured trailers and docks are low-hanging fruit for thieves. CLIQ® and BEAT™ deter theft by logging every access attempt and tying it to a user's credential. If theft happens, audit trails speed up investigations and insurance claims. Some insurers even cut premiums for fleets using these systems, offsetting your costs.



Compliance Keeps You in the Game

C-TPAT, FMCSA, and PHMSA aren't optional for hazmat or cross-border haulers. Failing an audit can mean fines, lost routes, or banned contracts. ALCEA's locks provide the digital logs and access controls regulators demand, saving you from penalties and audit stress. More importantly, compliance opens doors to premium shippers who won't touch non-compliant carriers.

Efficiency Saves Time and Headaches

Manual key tracking is a mess. Lost keys, unauthorized copies, and no clue who accessed what. CLIQ® and BEAT™ eliminate that chaos. Grant or revoke access instantly from a dashboard or app. Track drivers, contractors, or visitors across sites. Stop wasting time chasing keys or resolving disputes. That's real efficiency, not tech hype.

Win More Business with a Security Edge

High-value shippers, such as in pharmaceuticals or consumer electronics, demand proof of security. CLIQ® and BEAT™ show you're serious about protecting their cargo. That's a differentiator in RFPs and audits, setting you apart from competitors stuck with old-school padlocks. A secure reputation isn't just nice, it's a contract magnet.

Scale Smart, Save Money

You don't need smart locks everywhere. Focus on high-risk spots like trailers or docks and keep mechanical padlocks for low-risk areas. ALCEA's systems can integrate with your facility's supervision or video camera software, streamlining oversight without costly overhauls. Start small, see the ROI, then expand as needed.

The Math Adds Up

- Theft Savings: Prevent even one $100,000 cargo loss, and your locks are paid for.
- Compliance Gains: Avoid $10,000+ fines and secure million-dollar contracts.
- Insurance Breaks: Premium discounts can cut 5-15% off your rates.
- Efficiency Boost: Save hours on lost keys, key management and audit prep.
- Brand Strength: Demonstrating a modern, auditable security system builds trust with premium shippers.

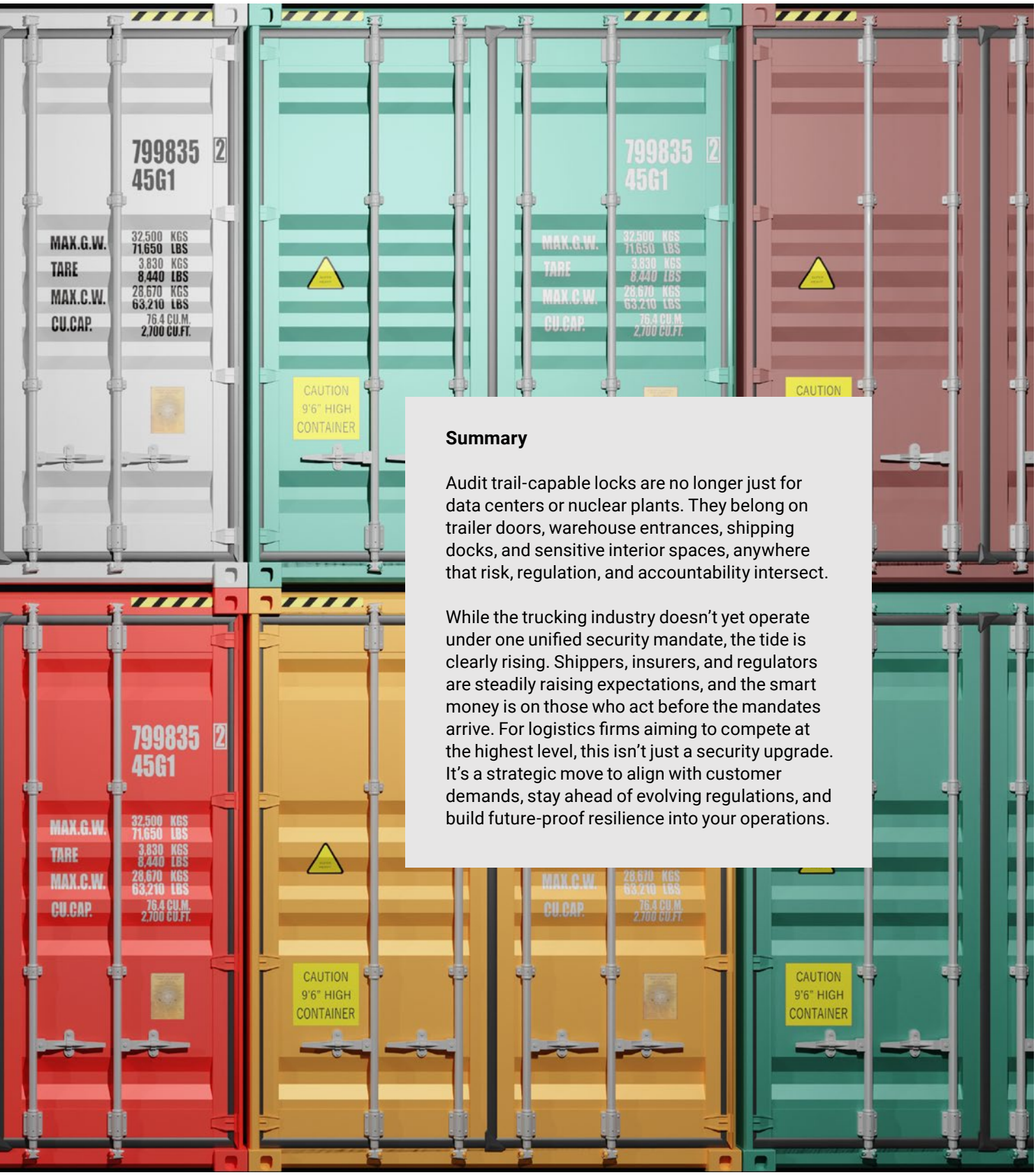
These aren't costs, they're investments that protect your bottom line and fuel growth.

Summary

Audit trail-capable locks are no longer just for data centers or nuclear plants. They belong on trailer doors, warehouse entrances, shipping docks, and sensitive interior spaces, anywhere that risk, regulation, and accountability intersect.

While the trucking industry doesn't yet operate under one unified security mandate, the tide is clearly rising. Shippers, insurers, and regulators are steadily raising expectations, and the smart money is on those who act before the mandates arrive. For logistics firms aiming to compete at the highest level, this isn't just a security upgrade. It's a strategic move to align with customer demands, stay ahead of evolving regulations, and build future-proof resilience into your operations.


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45G1
MAX.G.W. 32,500 KGS 71,650 LBS
TARE 3,830 KGS 8,440 LBS
MAX.C.W. 28,670 KGS 63,210 LBS
CU.CAP. 76.4 CU.M. 2,700 CU.FT.
CAUTION 9'6" HIGH CONTAINER



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customer spotlight:

how PENOX eliminated transport losses with CLIQ®

The Challenge

PENOX, a global chemical manufacturer, operates a high-volume transport network moving lead oxide across northern Mexico, an essential material in vehicle battery production. But something wasn't adding up: loads were leaving full and arriving lighter. With no tamper-evident locking system or shared visibility, pinpointing the source of loss was nearly impossible.

The Solution

When referred to ALCEA, PENOX adopted the ABLOY PROTEC² CLIQ® system to bring secure, trackable control to their logistics flow. CLIQ locks were installed quickly on trucks and managed through a central dashboard. Now, every locking event, such as who opened it, when, and where, is now logged and verifiable.

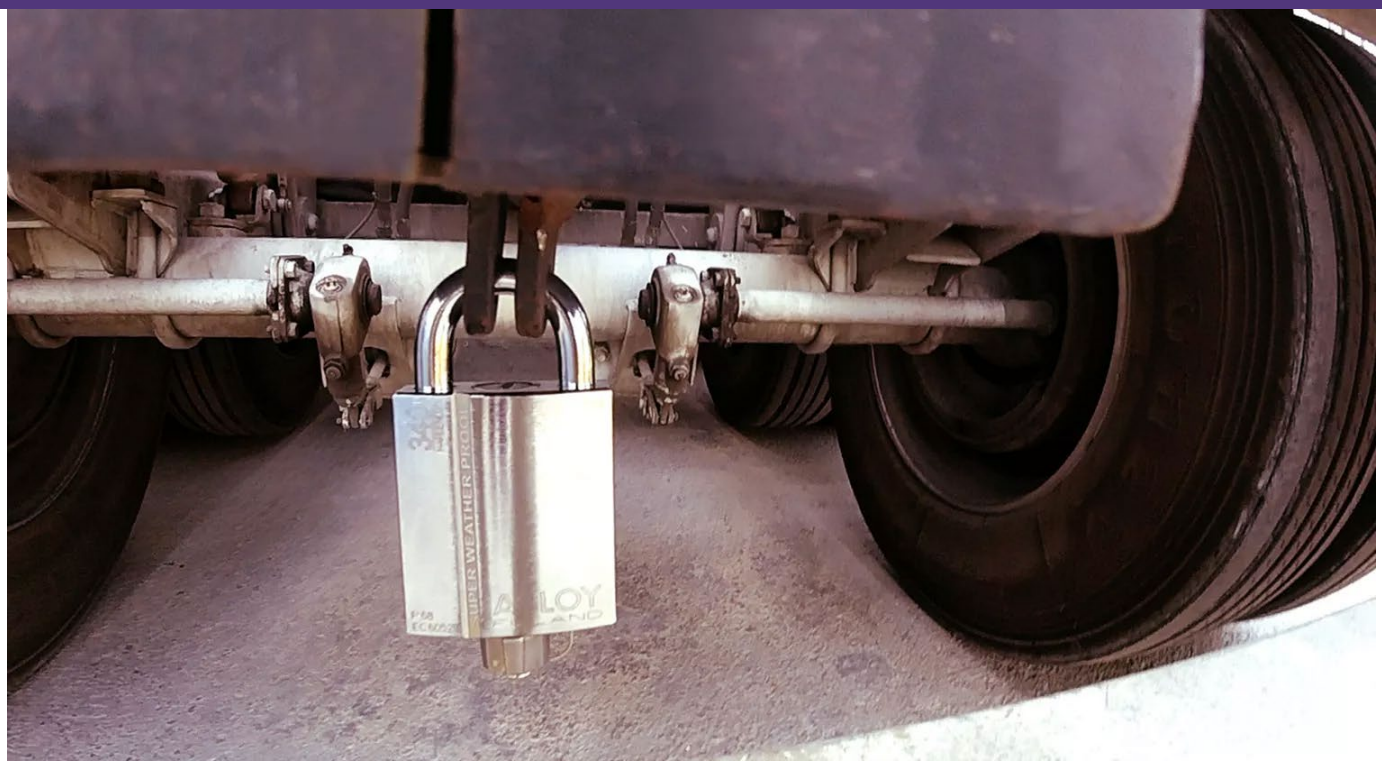
The Results

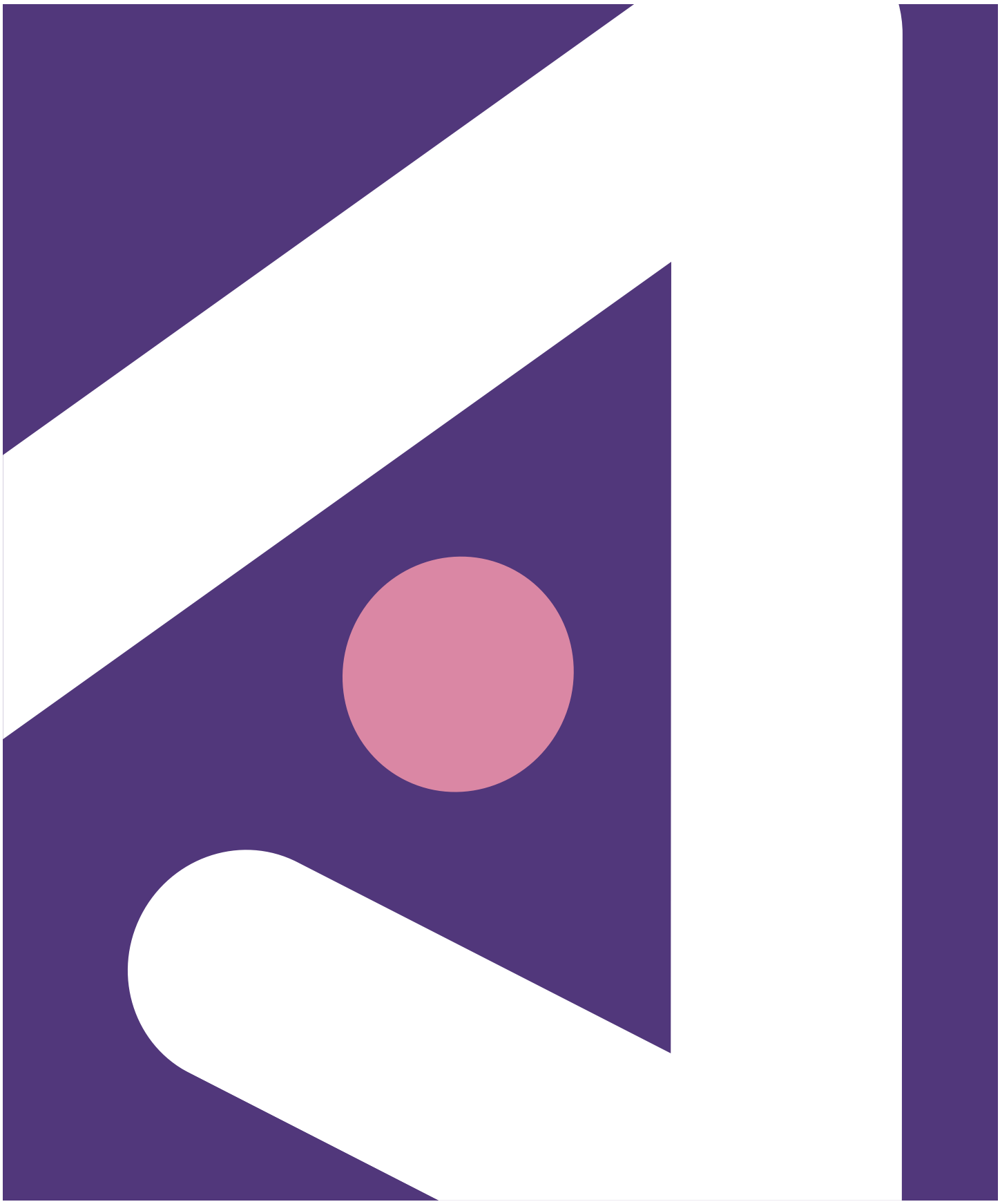
Since implementation, transport losses have been eliminated. The locks are now a routine part of daily operations, providing real-time traceability without disrupting workflows. PENOX also gained centralized oversight of not only drivers, but also guards and suppliers handling the goods.



"We're very happy with the ABLOY PROTEC² CLIQ solution. It delivers control, security, and confidence. Any company that wants better oversight of their logistics should seriously consider it."

— Noé Bernal, Commercial and Logistics Manager, PENOX





ALCEA specializes in protecting critical infrastructure globally, including energy, water, telecom, transportation, mining, oil, and gas. We provide comprehensive security solutions tailored to your unique needs, from access control and intrusion detection to key and video management. Our experienced specialists deliver customized, digitalized solutions that enhance efficiency, ensure compliance, and offer peace of mind.

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