

SECURITY SOLUTIONS FOR THE TRUCKING AND SHIPPING INDUSTRY

Prepared for

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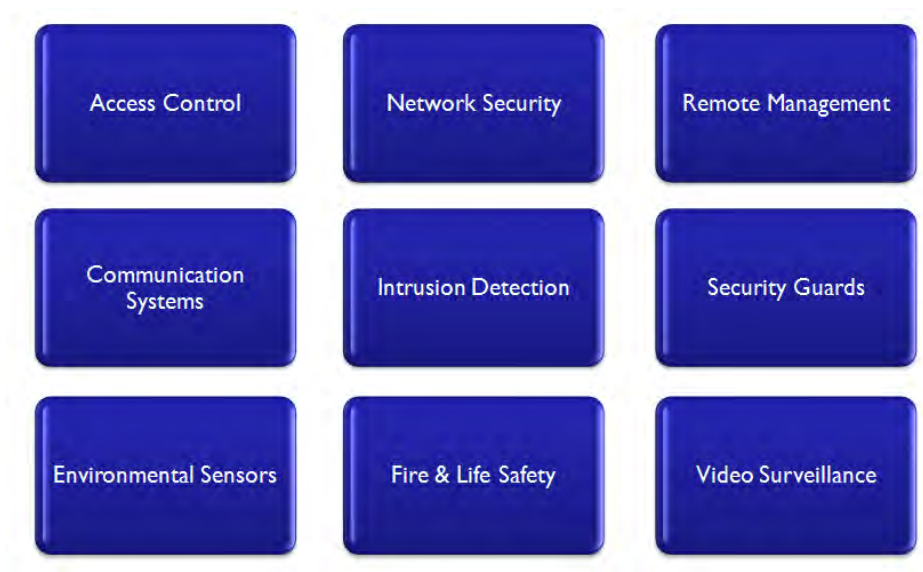
IMPORTANCE AND RELEVANCE OF PHYSICAL SECURITY SOLUTIONS

The trucking and shipping industry deals with unique issues that present risks that tends to be intensive on resources, in terms of costs, equipment and personnel. In addition to maintaining employee well-being on a day-to-day basis during routine operational activities, employers must protect expensive inventory and equipment from misuse, theft and environmental dangers. The solutions to reduce these risks vary vastly and employers must ensure the use of technology to protect their assets.

Physical security is the protection of personnel, hardware, and data from physical circumstances and events that could cause serious losses or damage to the day-to-day operations of the trucking and shipping industry. This includes protection from fire, natural disasters, theft (internal and external), vandalism, harassment and workplace violence.

Physical security is often overlooked (and its importance underestimated) in favor of more high-tech and dramatic issues such as hacking, viruses, Trojans, and spyware. However, breaches of physical security can be undertaken with little or no technical knowledge on the part of an attacker. Moreover, accidents and natural disasters are a part of everyday life, and in the long term, are inevitable.

Chart 1.1 highlights the various technologies that are currently in use to ensure increased physical security.



There are three main components to physical security. First, obstacles in the way of potential attackers and sites can be hardened against accidents and environmental disasters. These obstacles include access control systems such as multiple locks, fencing, walls, fireproof safes, and water

sprinklers. Second, surveillance and notification systems such as lighting, heat sensors, smoke detectors, intrusion detectors, alarms, and video surveillance provide information on events. Third, methods can be implemented to apprehend attackers (preferably, before any damage has been done) and to recover quickly from accidents, fires, or natural disasters.

BUSINESS ISSUES IN THE TRUCKING AND SHIPPING INDUSTRY

EXPOSED LOCATION

Trucking and shipping terminals are often located in industrial parks or suburban areas that are open and challenging to protect. This increases the number of security threats posed to trucking and shipping companies, including vandalism/graffiti and perimeter protection. Shipping locations, trucks, equipment, parked trailers and shipping containers are susceptible to criminal and unruly behavior and often targets for vandals and pranks. Video surveillance is a good tool to deter these activities and helps authorities prosecute offenders.

Perimeter protection and intrusion sensors are key technologies to protect trucks and containers from external damage when in the facility. Access control systems protect employees and cargo from unauthorized intrusions and help protect the facility.

DYNAMIC OPERATION

Terminals are usually a combination of warehouses, maintenance areas, docks, garages, offices and parking lots. This increases the number of threats that facilities face. Some key threats include protecting valuable inventory, environmental damage, fire and life safety, and liability from slip and falls. Video surveillance provides evidence of activities when implemented in the right areas while intrusion detection and access control prevent unauthorized visitors from entering warehouses. Fire detection systems are regulated by the government and mandatory in all facilities. Other technologies such as environmental sensors help monitor carbon monoxide levels and help in the safe transfer of hazardous materials.

EMPLOYEE SAFETY

Trucking and shipping terminals are a breeding ground for conflict, especially when people work close together for extended periods of time. In trucking and shipping terminals, simple arguments between workers can escalate rapidly and lead to violence. Harassment is another major issue that must be dealt with rapidly before it escalates to violence or lawsuits.

Policies and procedures that allow employees to report threats and violence also give employers the tools to track and assess this type of destructive behavior in the workplace. Such policies

clearly indicate zero tolerance of workplace violence and provide mechanisms by which incidents can be reported and handled. In addition, such information allows employers to assess whether prevention strategies are appropriate and effective. These policies should also include guidance on recognizing the potential for violence, methods for defusing or de-escalating potentially violent situations, and instruction about the use of security devices and protective equipment. Procedures for obtaining medical care and psychological support following violent incidents should also be addressed. Training and education efforts are clearly needed to accompany such policies.

Video surveillance provides security officers with information regarding incidents that have the potential to escalate rapidly. Mass notification systems enable employers to communicate quickly with employees and direct uninvolved people out of the area to ensure that the situation can be handled quickly and safely.

TECHNOLOGY SOLUTIONS TO ADDRESS BUSINESS RISKS IN THE TRUCKING AND SHIPPING INDUSTRY

Chart 1.2: Alarm Monitoring Solutions to Address Business Issues

Business Issues	Technology Solutions	Value Added Services
Exposed Location	<ul style="list-style-type: none"> • Video Surveillance • Access Control • Intrusion Detection 	<ul style="list-style-type: none"> • Remote Viewing • Virtual Guarding and Monitoring • Web-based Monitoring and Control
Dynamic Operation	<ul style="list-style-type: none"> • Video Surveillance • Intrusion Detection • Access Control • Fire Detection • Environmental Sensors 	<ul style="list-style-type: none"> • Remote Viewing • Virtual Guarding and Monitoring • Web-based Monitoring and Control
Employee Interaction	<ul style="list-style-type: none"> • Video Surveillance • Mass Notification Systems 	<ul style="list-style-type: none"> • Remote Viewing • Virtual Guarding and Monitoring • Web-based Monitoring and Control

ACCESS CONTROL

Old-fashioned keys and combination locks present several security issues. Employees are reluctant to use them, often propping open doors, because they are time-consuming and awkward. In addition, locks and combinations are changed with each employee lay-off, affecting all employees. With an electronic access control system, an approved employee can simply swipe his/her card to re-enter. If a card is lost or an employee leaves, simply disable the card and issue a new one. Biometric-based access control solutions offer even tighter exterior/interior control.

ENVIRONMENTAL PROTECTION

Many operations require constant monitoring to protect employees and property against excess levels of water and carbon monoxide, as well as extreme temperatures and other related conditions. Environmental sensors are integrated with video surveillance and other security technology to monitor many of these conditions 24/7, whether the system is armed or not. Integrate traditional monitoring with Web-based control and monitoring for remote notification via e-mail, cell phone or PDA.

FIRE PROTECTION

Fire and life-safety codes are becoming increasingly complex for trucking and shipping businesses. Owners and operators can take advantage of local, technical expertise and products that help ensure the safety of their businesses and employees and compliance with local, state, and national requirements. Fire protection systems are designed to detect heat and smoke 24/7, even when systems are not armed, and monitoring personnel can coordinate with emergency authorities to provide businesses with the fastest response possible when critical.

INTRUSION DETECTION

End users can add an intrusion system to fire, access control, and video surveillance to build a completely integrated security system that's monitored by specially trained operators at a 24-hour, UL Listed Business Security Center. Some of the equipment used to detect intrusion, helping to protect employees, inventory and equipment, include motion detectors, photoelectric beams, magnetic contacts, shock and pressure sensors, and glass break detectors.

Mass Notification System

Whether it's to alert people to an emergency or just a method of facility communications, an integrated intercom system will help secure the facility and provide direction to employees and customers.

VIDEO SURVEILLANCE

Video surveillance can help protect employees and assets. Owners and security personnel can work with vendors when choosing the appropriate indoor/outdoor camera and digital recording solution for the property. Users can control individual cameras' pan-tilt-zoom functions, enter recording commands, and simultaneously view high-quality live images from a single computer. Captured footage can be used as evidence in assisting investigations, understanding the nature of threats in a location or for training purposes.

NETWORK ACCESS CONTROL

Control and manage facility access from anywhere with an Internet-connected computer enhanced by network access control systems. Management can log in to view user information and access points, in addition to permitting or denying access by user, group, location, etc. Notifications, report compilation and fingerprint enrollments can be undertaken online.

VALUE-ADDED SERVICES TO BOLSTER TECHNOLOGY SOLUTIONS

REMOTE VIEWING

Trucking and shipping facilities can be monitored from almost anywhere by viewing live video from any connected camera on an Internet-connected computer. Monitoring operators and authorities can be provided real-time visual verification of actual alarm events from home or from across the country. E-mail messages with video images, before and after alarm activation are useful tools to understand incidents and future prevention.

VIRTUAL MONITORING AND GUARDING

No matter the location of trucking and shipping terminals, remote monitoring professionals can conduct remote, virtual surveillance tours of the premises from monitoring centers. With end-user permission, professionals can access and control cameras and recording systems and view your business inside and out, adding another layer of security to intrusion, fire protection and other sensors.

WEB-BASED MONITORING AND CONTROL

With Web- and text-enabled monitoring, control and notification services usually include:

- State-of-the-art, central-station monitoring for intrusion, fire and other alarm events
- Ability to arm and disarm systems remotely via phone or computer
- Self-monitoring and control through a secure Web interface on any Internet-connected computer
- Text-message and e-mail notifications for alarm and non-alarm events (restricted rooms accessed, system disarmed)
- Available online remote video monitoring with event-triggered images sent to authorized computers or mobile devices – Web-based video complements existing video surveillance to help monitor and manage employees and other internal risks.

UNIQUE CUSTOMIZED SOLUTIONS

Leading alarm monitoring service providers help design and execute a solution no matter what specifications and equipment are needed to do so. If information is not available in printed materials, briefing security consultants on needs can help direct employers in the right direction.

RETURN ON INVESTMENT IN THE TRUCKING AND SHIPPING INDUSTRY

While intrusion and fire monitoring systems are understandably basic needs at most trucking and shipping locations, we recommend companies create a projected Return on Investment before implementing a more robust physical security system. One of the primary objectives of ROI in the trucking and shipping industry is calculating the direct impact of security systems in reducing risk and improving performance.

In order to identify the best set of features and functions to be installed, companies should expect their security service partner to provide a pro forma or projected return on investment to substantiate the benefits of the recommended security products and services. We recommend companies seek out those security service providers who are willing to create the appropriate ROI business case, and to avoid those providers lacking the skill or expertise in projecting a positive return.

This projected return on ownership of the installed systems is based on the total cost of ownership compared to the expected gains in productivity and reduction in losses or injury. The potential benefits that trucking and shipping companies can expect to accrue include:

- Initial investment on technology (Capital Investment)
- Recurring monthly charges on monitoring and value-added services (Operating Expenses)
- Employee productivity
- Impact on insurance rates
- High cost of inventory
- Reduces losses (internal and external theft)
- Reducing fatal and non-fatal injury downtime
- Improving worker safety and security
- Reduces fines for code violations
- Reducing impact of environmental damage
- Reducing costs associated with vandalism and graffiti
- Liability protection and reduced cost of litigations

A sample ROI calculation tool is illustrated below.

	Cost of Investment	Gain from Investment
Capital investment	xxx	
Operating expenses	xxx	
Employee productivity		xxx
Impact on insurance rates		xxx
High cost of inventory		xxx
Reduces losses (internal and external theft)		xxx
Reducing fatal and non-fatal injury downtime		xxx
Improving worker safety and security		xxx
Reduces fines for code violations		xxx
Reducing impact of environmental damage		xxx
Reducing costs associated with vandalism and graffiti		xxx
Liability protection and reduced cost of litigation		xxx

$$ROI = \frac{Gain\ from\ Investment - Cost\ of\ Investment}{Cost\ of\ Investment}$$

Return on Investment calculations are based on the difference between gains from an investment and cost of the investment divided by the cost of the investment. A prospective ROI should be calculated based on intelligent assumptions of benefits, gains, and savings over a set time period (for most security equipment, 4-6 years). On average, it is expected that the return should break-even and begin to pay off over a 2-3 year time frame. This number is dependent on efficient use of the installed security systems and companies should expect some variability in returns depending on the unique circumstances of their situation. The use of highly-sophisticated and customized security systems help end users accrue greater benefits and would likely derive a positive ROI in a shorter time frame.

RECOMMENDATIONS AND CONCLUSION

Business issues cannot be solved by security technology alone. Training and boosting employee morale are other means to increase productivity and augment the bottom line. In addition to reducing losses and improving safety and security of people, assets and facilities, video surveillance can be used for training employees and improving productivity. Access control and intrusion detection systems help provide a safe environment in which to work, leading to increased productivity among employees and increased customer satisfaction.

Alarm monitoring companies provide hardware and software to help trucking and shipping companies improve safety and security. Services range from quality hardware and software with value-added services that include remote monitoring, virtual guarding and access to Web-based monitoring. The key criteria to take into consideration are the ability to install hardware that

delivers undiminished performance over its lifecycle, value-added services to improve safety and security, and unmatched customer service.

Installing equipment will not help companies reap loss prevention, life safety, and worker productivity benefits discussed in this paper. To get the desired results, companies should engage with service providers that offers the following capabilities;

- Security companies with expertise in the trucking and shipping industry
- Proven experience with demonstrable client case studies and testimonials
- Security companies that undertake a consultative approach, those willing to come out and carry out comprehensive Risk Analysis and then provide a solution designed to meet specific end-user needs
- A security provider that listens and understands the end user's challenges and offers proven solutions.

End users should avoid dealing with security service providers that lack understanding of end-user pain points and steer conversations around products and services that the company offers.

The trucking and shipping industry is the backbone of the economy which employs millions. The current economic conditions amplify the importance of security technology to reduce losses and increase profitability. While it is difficult to calculate a tangible ROI on security, it is essential to use technology to solve some of the business issues impacting the trucking and shipping industry, namely property management, dynamic operation and potentially harmful employee interaction. Increasing availability of customized solutions to address each of these business issues has helped trucking and shipping companies use technology to improve their bottom line.

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