

Enhanced Border Security: *Global Cargo & Vehicle Screening Solutions*

F R O S T  S U L L I V A N

In Collaboration With



and



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Introduction 3

Overview of Related Security Solutions 4

Rapiscan Systems and S2 Global Solution..... 5

The Last Word 7

INTRODUCTION

Border security is one of the most complex and critical security challenges that governments face today. Complex in nature as the differing terrains, topography and natural elements make monitoring access to countries a technological and logistical challenge. Critical in the growing movement of illicit goods and unknown people across borders that not only pose a direct threat to populations and high-profile sites, but impact economic and social prosperity.

Conversely, as the entry and exit for both people and goods, the border remains critical to the prosperity of countries. Improvements in border monitoring can provide dramatic benefits for countries, not only to improve security, but by creating a more trade-friendly environment through increasing flow of legitimate goods and, therefore, collection of customs revenue, bolstering the state's economy.

However, evolving global situations and trends, including political and security unrest, growth in travel, migration and distribution of goods and trade among nations, continues to place increasing pressure on border security.

A range of government agencies, such as border control, border guards, customs and immigration, that are involved in border security continue to struggle with monitoring and detecting threats across the entire length of their borders; authorised border crossing and access points continue to develop and pose challenges of their own.

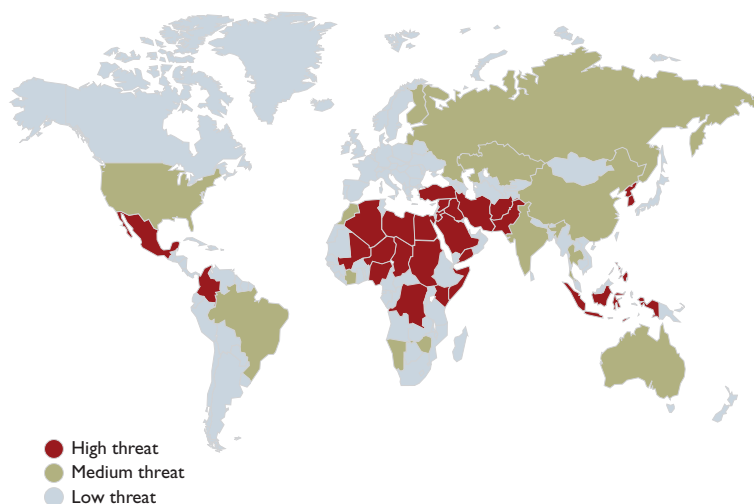
The table below outlines some of the issues and impacts that the flow of people and goods is having on states.

Category	Description	Potential Impact in Country
Flow of People	The movement of people across borders and growth in migration continues with opportunity of greater resources and employment prospects	<ul style="list-style-type: none"> • Terrorism • Criminality • Health/Disease • Immigration • Pressure on local and state resources
Flow of Goods	The flow of illicit, dangerous and undeclared goods across borders poses a range of physical threats as well as financial impact to countries	<ul style="list-style-type: none"> • Illicit Materials • Drugs • Currency • Weapons • Banned Items • Counterfeit Goods • Movement of Taxable Items

More than at any other time, states face increased pressure on these issues, and ensuring the best possible solutions are in place to allow visibility of what and who is entering or exiting the country is a priority. Despite screening vehicles and people at the multiple official entry points to states, border agencies are still faced with high levels of illegal activity and movement of contraband materials at ports and border crossings.

Each state faces their own specific threats, creating a vast difference in technology deployment and requirement throughout the world. As the map below highlights, border security is critical for North Africa, the Middle East and Central Asia. In addition, border disputes and the movement of illicit materials in Latin America continue to pose challenges to the regional governments.

Exhibit I - Border Security Global Threat Assessment, 2014



Source: Frost & Sullivan analysis

SECURITY SOLUTIONS AND CUSTOMER NEEDS

Whilst the requirement for investment is clear, the available budgets, political intent and strategic direction of governments differ widely and, in many cases, limit the deployment of border security solutions. In many situations it is the countries that have the highest threat and greatest need for border security solutions that also face some of the largest constraints. Many continue to struggle with the high costs associated with securing borders, whilst others have technological and expertise shortages within the country, limiting the ability to deliver the level of border security required. This presents a challenge to government agencies and the industry to provide solutions that enable countries to protect their borders in more innovative and achievable ways moving forward.

The Need for Integration

The current level of infrastructure deployed at borders is mixed; however, the adoption of technology continues to grow.

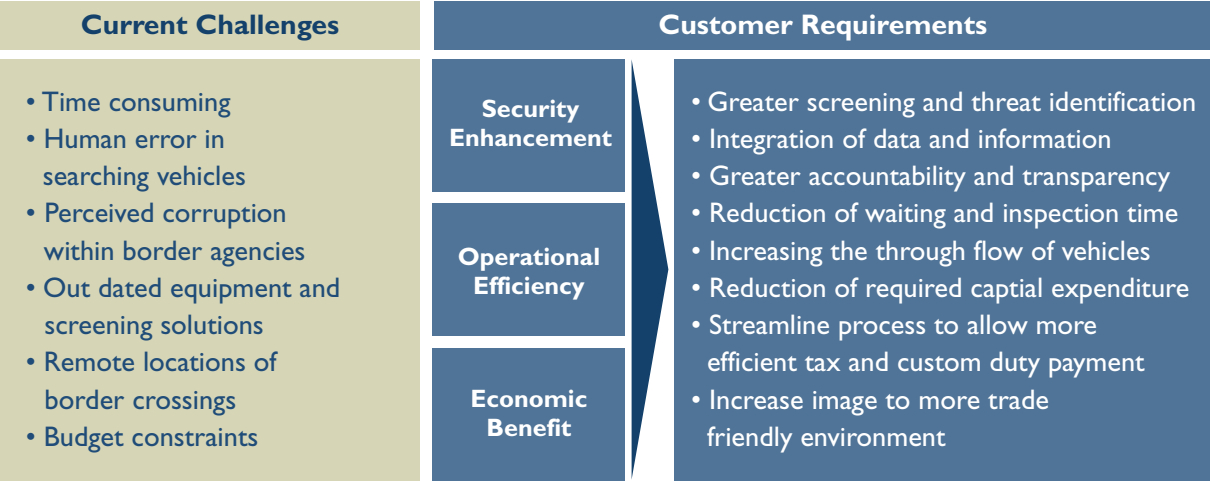
The border agency and end-user need has developed beyond stand-alone screening and detection solutions and toward integration of intelligence and information from law enforcement, official databases and information sources to give a greater level of data on vehicles and cargo at entry and exit points.

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This may include the integration of license plate recognition, more in-depth background checks against national and international databases and cargo inspection lists, or further information from other sensors or technology, such as RFID tracking within shipping. Collating this information gives border guards better visibility and situational awareness to identify potential threats and criminal behaviour.

In addition, due to the remote locations of many of the border points, getting up-to-date information quickly from centrally held sources can be problematic. Deployment of high-speed area networks allows quicker access and greater flow of information to enable a better, more efficient assessment and decision making for each inspection.

Exhibit 2



As policymakers and governments address the range of challenges that they face, the security industry continues to play a supporting role. Whilst security considerations are paramount for the policymaker, there are other driving factors for investment and protection of borders. Border agencies remain a large expense and, in many cases, human-intensive activities. Solutions that can address efficiency and operational procedure whilst maintaining high standards of security screening are of greater interest for governments. Reduction of waiting and inspection times of vehicles will help foster a culture and perception of trade-friendly nations, a strong image that most governments continue to encourage.

Legal cross-border commerce is critical to the growth of countries' economies. Increasing the number of vehicles that can be effectively screened entering the country, whilst ensuring the correct taxation of legitimate goods and identifying illicit materials, will have continued economic benefits.

THE RAPISCAN AND S2 GLOBAL SOLUTION

To address many of the challenges and requirements set out above, Rapiscan Systems and its affiliate business unit, S2 Global, have developed a border security and trade enhancement offering to improve security, increase efficiency and provide greater economic benefit to governments and border agencies.

The SAT Project: An Intelligence-Based Approach to Border Security

In recent years, Mexico has experienced an escalation in violence and organized crime activity along its borders, driven in part by increased smuggling of weapons, narcotics, currency and other threat items. However, legal cross-border commerce is critical to Mexico's economic growth.

In an initiative with Mexico's tax administration service, Mexico's Servicio de Administracion Tributaria (SAT), Rapiscan Systems and S2 Global have deployed a new security strategy that aims to provide an effective border security solution.

The SAT project improves border security systemically and measurably. It seeks not only to increase seizures of weapons, narcotics, etc., but also to provide intelligence to pre-empt criminal activity, while allowing border agents to quickly discriminate between potential threats and legitimate commerce.

To accomplish this, the SAT Project combines the following elements:

- State-of-the-art, non-intrusive cargo and vehicle inspection technology and border inspection facilities, designed to examine cars, trucks and containers at high rates of throughput;
- Software that integrates, analyses and presents data from surveillance cameras, license plate readers, X-ray inspection equipment, manifest data, etc., as well as law enforcement databases;
- A dedicated data network that delivers actionable information to SAT inspectors, law enforcement and military personnel in real time;
- Comprehensive training of border inspection staff and supervisors; and
- Regional Analysis Centers – integrated command and control centers – where law enforcement, military, SAT personnel, etc., can jointly assess and respond to potential threats.

RESULTS TO DATE

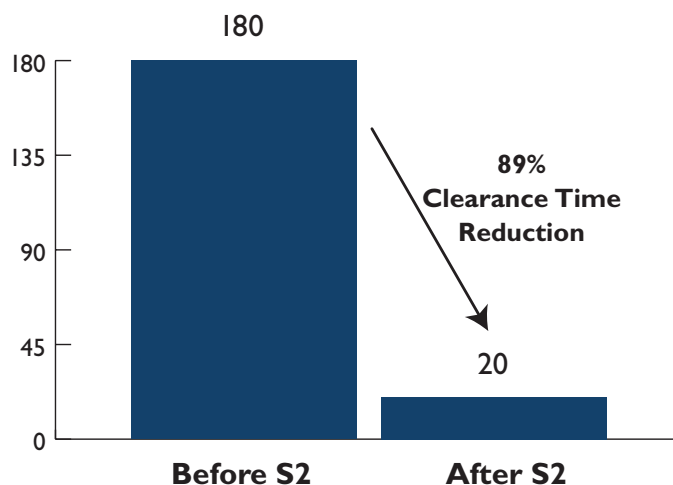
Increased Security Analysis of Cargo and Vehicles

- The SAT project has increased the capacity of the Mexican government to perform large-scale, high-volume, in-depth analysis of cars and vehicles crossing its borders, which is essential to improving border security. In a six-month period, the number of X-ray images of cars and vehicles that have been analysed has increased from approximately 60,000 per month to approximately 115,000 per month.

Reduced Inspection Time and Improved Border Throughput

- Advanced screening technology allows inspectors to quickly identify threats in suspicious cars and vehicles, whilst significantly decreasing the amount of time required for cargo inspection. Specifically, for vehicles selected for inspection, inspection time has decreased from an average of three hours per vehicle to approximately 15 minutes per vehicle.

Exhibit 3 - Average Clearance Time Per Vehicle - Ciudad Juarez Customs Center Mexico (Minutes)



Improved Seizure Capabilities

- By combining high-resolution X-ray images of cargo containers, trucks and other vehicles with vehicle record data and shipper manifest data, SAT project staff has been able to flag vehicles whose declared contents do not match the contents actually inspected. This intelligence-based approach to screening has, according to SAT officials, led to significant seizures of illegal weapons, ammunition, currency and smuggled goods.

THE LAST WORD

The solution has provided a new approach to border security that has yielded impressive results and returns for the customer.

For those countries that want to facilitate a high trade flow across borders and do not have the capital to invest in sophisticated security and screening solutions, a model of a managed service that includes payment of operational costs, rather than large initial capital expenditures, will be appealing.

Solutions such as the Rapiscan and S2 Global SAT project demonstrate an example that addresses the constraints and barriers facing many government stakeholders in border security throughout the world. These types of offerings provide a good opportunity for countries to work closely with key industry participants to increase security across their borders, whilst also enhancing trade and economic benefits.

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