

SURVEY ON

HOMELAND SECURITY DEMANDS ON BORDER CONTROL

AND

TECHNOLOGICAL SOLUTIONS STATE-OF-ART



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ABSTRACT

In recent decades, Globalization is a concept that has made its way with prepotency, thanks to the joint forces of economics and technology. One hand, this has greatly increased the “material” quality of life through the implementation of systems and services which, if 20 years before they were a work of fiction, today have become a necessity. To achieve this, the existing systems have been improved, have been adapted to the new technology, have been interconnected reaching a level of complexity that make it all a system of systems.

Threats and the related risks too have evolved, creating new scenarios. The threat is no longer frontal, exploits the vulnerabilities of our system, but it can also harm through vulnerabilities of systems interconnected with our. The threat is no longer an enemy army on a battlefield, but an enemy that is organized into cells, which attacks with outline guerillas and strikes not only to conquer but for very different reasons.

In this context, was born the concept of Homeland Security. A possible definition: the set of activities to prevent, deter and mitigate any event that potentially cause damage to life and to the needs of a nation and its inhabitants.

The first time we heard about Homeland Security is in US: the Department of Homeland Security (DHS) was established by the Homeland Security Act of 2002, signed into law on November 25, 2002. The new department was assembled from components pulled from 22 different government agencies and began official operations on March 1, 2003. Since then, DHS has undergone a series of restructurings and reorganizations to improve its effectiveness and efficiency.

But the definition of Homeland Security remains an unfinished debate. Many of the Homeland Security functions are also functions or parts of functions of other departments. FEMA has rule over disaster relief and recovery missions, Cost Guard over environmental and boater safety missions, military over law enforcement, monitoring and policing transfers of money, human trafficking, etc. But all of these are also aspects of Homeland security or have implications with it.

So, it has been argued that homeland security, as its core, is about coordination because of the disparate stakeholders and risks. Others assert that homeland security is also about coordination of the strategic process policy makers’ use in determining the risks, the stakeholders and their mission, and the prioritization of those missions.

The definition so remains general and staying in general terms we simplify the argument into three mission study areas:

- Territory Control: which includes all control activities inside and outside the national borders and airspace related to Security. This comprehend Counterterrorism, Border Security and Trade Security, Security Management (Law enforcement);
- Disaster Preparedness, Response and Recovery: comprehend activities related to the Safety and the Security of the population towards natural events and other major catastrophic events (i.e. the fall of twin towers, Hurricane Sandy, Hurricane Katrina).

- Critical Infrastructure: refers to Security and Safety of all infrastructure and systems that provide basic services without which one poses serious risk to life or to the existence of a nation.

This study will focus in particular on the first category, Territory Control, analyzing any interconnections and any similarity with the others. The goal is to provide state of the art of technological solutions used in these areas to reach the goals of Homeland Security.

By introducing the concepts of Homeland Security and, within it, the concept of Territory Control, purpose of this discussion is to analyze different aspects of the territory control, both from the side of the Missions and requirements and from the side of capabilities currently offered by today's technology.

Due to this analysis, aim is to identify a cross-platform of capabilities to all areas of the territory control and distinguish, by contrast, elements of tailoring required to integrate a security system related to Territory Control.

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