OPINION

Addressing the U.S.-Mexico digital wall

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In recent years, the concept of Smart Borders has gained traction as countries seek to enhance the efficiency and security of their border operations. Smart Borders refers to the use of technology and data to facilitate the movement of people and goods across borders while ensuring security. These initiatives include, among others, electronic customs systems, automated border control systems, and risk assessment tools, all designed to streamline processes and improve decision-making.

Implementing smart border Logistechs technologies has become a priority for the United States and Mexico in their efforts to modernize their cross-border trade management systems, but it's not without challenges.

Both countries have made significant investments in various initiatives aimed at the digital transformation and automation of customs processes, with the goal of reducing wait times, increasing security, and improving data collection and analysis. However, the emergence of a 'Digital Wall' between the two countries presents a challenge that must be addressed to realize the full potential benefits of Smart Borders.

Smart Border programs and the implementation of Logistechs can generate efficiencies, cut wait times at ports of entry, and reduce costs by automating processes and streamlining data collection, exchange, and analysis, allowing for better decision-making and risk assessment. The exponential technologies used in these initiatives can significantly improve the flow of goods across borders, reducing congestion and minimizing delays.

It is important to note that while these initiatives are fundamental for modernizing border management, they do not substitute the urgent need for infrastructure improvements, particularly in increasing the number of commercial truck crossings and upgrading roads and highways to manage the growing volume of cross-border trade.

While Smart Borders offer numerous advantages, their implementation comes with challenges that must be carefully considered and addressed. Implementing Smart Borders requires significant investment in technology and infrastructure. Using technology and data raises concerns about privacy and data protection, as they require collecting and analyzing substantial amounts of personal data.

Developing Smart Border initiatives requires international cooperation and coordination, which can take time and effort. Achieving this cooperation can be challenging due to different priorities, legal frameworks, and data protection regulations across countries.

Coordinating the efforts of multiple stakeholders, ensuring secure data sharing, and addressing concerns about data sovereignty and the fair distribution of costs and benefits also complicate international collaboration. Despite these challenges, international cooperation remains crucial for the success of Smart Borders in enhancing security, facilitating trade, and improving border management.

Smart Borders are digital transformation processes. Any digital transformation process goes through three stages: digitization, digitalization, and digital transformation. Digitization involves converting analog data into digital formats, while digitalization focuses on using digital technologies to improve processes and create new business models. Digital transformation is the ultimate goal, representing a fundamental shift in how organizations operate and deliver value through the strategic application of digital technologies across all processes.

The U.S. is taking steps towards the digital transformation of international trade through initiatives such as the Customs and Border Protection (CBP) 21st Century Customs Framework, which aims to enhance facilitation and security through modern processes, define customs and trade responsibilities for emerging and traditional challenges, ensure seamless data sharing and access, employ intelligent enforcement, and protect and enhance customs infrastructure through secure funding.

Under this framework, U.S. Smart Borders initiatives include incorporating Logistechs such as Low Energy Portal (LEP) Non-Intrusive Inspection Systems (NII) at land ports of entry. With LEP NII implemented at commercial crossings, all arriving commercial trucks pass through the LEP NII systems after crossing the international boundary and before reaching the primary inspection booth. CBP personnel review the imagery and follow through with additional screening if any anomalies or issues are noted. Using NII technologies increases the probability of detecting contraband, weapons, destructive devices, narcotics, and undeclared currency being smuggled into the United States.

Another notable initiative is the Transmute Verifiable Data Platform (VDP) pilot test, which recently concluded a successful 4-year collaboration with the Camara Nacional de Acero (CANACERO), a prominent Mexican steel trade association. This initiative involved six major Mexican steel manufacturers and customs brokers piloting U.S. Customs and Border Protection's interoperability standards using Transmute's VDP to issue and share verifiable trade credentials across the steel supply chain. The success of this pilot reaffirms the power of multi-stakeholder collaboration in redefining industry standards and providing Logistechs-

enabled Smart Border solutions that meet the wide variety of interests involved in cross-border trade.

Additionally, the Automated Commercial Environment (ACE) 2.0 aims to be a new system that allows CBP and partner government agencies (PGAs) to receive better quality data much earlier in the supply chain, often in near-real time from both traditional and non-traditional actors.

This will vastly increase supply chain visibility as products make their way to the border of the United States, facilitating faster government responses with earlier determinations on cargo.

ACE 2.0 is envisioned to lead the international exchange of trade data by promoting international standards for global interoperability, allowing differing systems and technologies to communicate with CBP, offering businesses flexibility and technology choice while enabling CBP to exchange data with a much wider variety of trade entities in near real-time.

Mexico is also investing in Smart Borders technologies through various initiatives led by the Agencia Nacional de Aduanas de Mexico (ANAM). One notable project is PITA (Proyecto de Integración Tecnológica Aduanera), launched in March 2016 as part of Mexico's "Aduana Digital" (Digital Customs) initiative. PITA aims to automate, facilitate, and streamline the entry and exit of goods at customs ports by enabling paperless processing of trucks crossing the border. This is achieved using Logistechs such as RFID readers that scan QR codes on drivers' Consolidated ID Badges. Another significant development is the implementation of the Operation Document for Customs Clearance (DODA), which is part of Mexico's ongoing efforts to modernize its customs system and align with international best practices.

These initiatives are driven by Mexico's commitments to organizations such as the World Customs Organization (WCO), the World Trade Organization (WTO), and various trade and supply chain security agreements. While these changes have required companies involved in import and export operations to adapt their processes and invest in technology, they are expected to increase efficiency and security in cross-border trade.

Despite both the U.S. and Mexico investing heavily in Smart Border technologies, a current lack of integration between the two countries' systems is creating a virtual

Wall continues on F7

WALL

From page F6

barrier. Insufficient work on communication protocols, connection interfaces, and trust-building measures results in a "Digital Wall" that hinders the seamless flow of goods and data and impedes the development of a robust cooperative framework.

This Digital Wall could lead to reduced efficiency gains from Smart Border Logistechs investments, missed opportunities for enhanced bilateral cooperation and information sharing, and fragmented data ecosystems vulnerable to cyber threats.

One of the main challenges in integrating the two countries' systems is the need for more trust in sharing sensitive data. Governments from both countries are concerned about the potential misuse or unauthorized access to their respective data, which can contain confidential information about businesses, individuals, and national security. This mistrust hampers the development of robust data-sharing agreements and protocols, further reinforcing the Digital Wall.

For example, the U.S. has recently expressed worries about the equipment used in Mexico's Smart Border initiatives, particularly regarding using Chinese-origin technologies. The U.S. concerns stem from the potential security risks associated with Chinese-made equipment, such as the possibility of hidden backdoors or data breaches that could compromise sensitive information. These concerns further complicate the establishment of trust between the two countries and delay the development of secure data-sharing mechanisms, ultimately contributing to the persistence of the Digital Wall.

In addition, Mexico's recent decision to militarize its customs entity, ANAM, has introduced further complexities. The military approach to managing customs operations represents a steep learning curve for Mexican officials and their U.S. counterparts. The military's traditional focus on security and control may not always align with the more trade-oriented goals of civilian agencies, potentially leading to further disconnects in priorities and procedures.

This is further heightened by the fact that Mexico's customs system primarily focuses on revenue collection, while the U.S. system prioritizes trade facilitation and security. These divergent priorities can create additional challenges in harmonizing processes and finding common ground for collaboration, as the two countries customs authorities may have different objectives and approaches to border management.

Another significant hurdle is the need for comprehensive international standards for Smart Border technologies. Without a unified framework to guide the development and implementation of these systems, the U.S. and Mexico have been working independently, resulting in technologies that often lack interoperability. This lack of standardization makes establishing effective communication protocols and connection interfaces between the two countries' systems difficult.

Without a concerted effort to develop and implement compatible technologies and standards, the Digital Wall will continue to impede the efficient flow of goods and information between the two countries.

Day-to-day communications between CBP and ANAM are excellent, particularly at the port level. Customs authorities from both sides of the border are in constant communication with each other, usually on a daily basis, working together to solve issues that require cross-border cooperation, such as establishing contingency plans when systems fail.

Outreach mechanisms like the COFA (Comite de Facilitacion Aduanera), held monthly by ANAM at the port level, further promote this strong communication between authorities. These regular interactions and collaborative efforts demonstrate the commitment of both CBP and ANAM to maintain efficient border operations and address day-to-day challenges.

The Digital Wall arises when integrating Smart Border technologies and systems.

Addressing these challenges will require a sustained, collaborative effort between the U.S. and Mexico. Both nations must work to build trust, establish shared standards, and invest in interoperable technologies that can bridge the digital divide.

This is where initiatives like the ASTM International Committee F49 on Digital Information in the Supply Chain can play a crucial role. This committee focuses on developing technology-neutral standards and specifications related to the sharing and using digital information in the supply chain. The committee aims to create a foundation for interoperability and trust between trading partners by formulating definitions and terminology and developing recommended practices and guides. The standards development process is designed to be consistent with WTO principles, ensuring fairness and transparency in international trade.

By actively engaging in such initiatives and collaborating on the development of shared standards, the U.S. and Mexico can work towards breaking down the Digital Wall and fully realizing the potential benefits of their Smart Border initiatives, fostering enhanced security, efficiency, and economic growth.

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