Center of Excellence for Cross-Border Threat Screening and Supply Chain Defense (CBTS)

A DHS Center of Excellence

CBTS researches and develops solutions to counter known and unknown threats to the nation's people, agriculture, and supply chains.

LAUNCH ▶	2018
PARTNERS ▶	Eight Texas A&M University System entities and six other public- and private-sector partners
EXPERTISE ▶	Solutions for transportation, agriculture, public health, biodefense and supply chain defense; operational logistics; workforce health; disaster medicine
DHS ALIGNMENT ▶	DHS Countering Weapons of Mass Destruction Office, U.S. Customs and Border Protection (CBP), and Immigration and Customs Enforcement (ICE)

Feedback from Our Partners

*"This Center will deliver relevant technology and analytics to support CBP in securing the trillions of dollars of trade and millions of travelers that enter the United States each year. **We look forward to working with Texas A&M and the Center of Excellence as we explore new technologies to better facilitate safe and secure trade and travel.**"*

Kevin McAleenan, Commissioner
U.S. Customs and Border Protection, 2018

*"This Center's work will assist DHS operations that **protect the global supply chain and reduce the risk of exposing people and infrastructures to new and evolving biological threats.**"*

William N. Bryan, Senior Official performing the duties of the Under Secretary
DHS Science and Technology, 2018

Research and Education Capabilities

- Detection of threats and disruptions to people and global supply chains
- Data integration and analytics
- Novel operational methods for emerging tools to reduce risk
- Workforce development
- Time-critical response support

CROSS-BORDER THREAT SCREENING AND SUPPLY CHAIN DEFENSE
A Department of Homeland Security Center of Excellence

A nationwide consortium led by:

Center of Excellence for Cross-Border Threat Screening and Supply Chain Defense

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Impacts

Mitigating emerging threats to homeland security workers at critical locations

The health, security, and economy of the United States and the world depend on a stable supply of goods. CBTS is assessing critical locations within supply chains for vulnerabilities to biological threats. The work will identify gaps in security; develop guidelines, tools, and operational policy recommendations; and highlight priorities for future research. Exercises with stakeholders will be used to propose improvements to infrastructure and personnel.

Application of Blockchain to Mitigate Illicit Trade

CBP's vision to be a leader among global customs agencies requires harmonization of innovative 21st century platforms, yet illicit activities in the harvest-to-consumer continuum can be obfuscated from trading partners through manipulation of records throughout the supply chain. Demonstrating a functional Hyperledger and blockchain system in coordination with existing CBP efforts and those of partner government agencies will facilitate legitimate trade, enhance border security, and foster resilient end-to-end supply chains.

Supply Chain Traceability Over Land Borders and Ports of Entry

End-to-end tracing of information is critical to ensure cargo and chain of custody are legitimate; however, the volume and diversity of imported cargo can overwhelm targeting of potentially hazardous shipments. An operational case study combining blockchain and internet of things (IoT) technologies to capture and security transmit information throughout the end-to-end supply chain across land borders demonstrates secure IoT-driven traceability. A combined feasibility approach adds near-terms value supporting CBP initiatives transforming global entry data collection processes.