Commercial Customs Operations Advisory Committee (COAC)
Government Issue Paper: ACE 2.0

March 2022

U.S. Customs and
Border Protection

Action Required: Informational

Background:
Under the banner of ACE 2.0, CBP is paving the way for the next generation of the U.S. Government's "Single Window" for international trade. CBP is in the early stages of the acquisition process to enable the development of a new system that will ultimately replace the Automated Commercial Environment (ACE), the current platform connecting CBP, the international trade community, and Partner Government Agencies (PGAs) for the submission and processing of trade-related data for imports and exports.

Issue:
ACE 2.0 is not a refresh of ACE or a set of incremental changes; it is intended to be a new system based on a rethinking of how current and future technologies can be leveraged to meet our mission most effectively.

While ACE was built to transform the legacy Automated Commercial System (ACS) into a modern platform, ACE 2.0 is being built to improve processes and create efficiencies by matching the natural flow of the supply chain. ACE 2.0 is intended to implement the re-imagined trade processes developed in collaboration with the trade community through the Commercial Customs Operations Advisory Committee (COAC) as part of the 21st Century Customs Framework (21CCF). 21CCF develops legal and operational changes that embrace 21st Century processes and emerging technologies to better secure national and economic security, enhance data integrity, account for emerging actors and business practices, and better facilitate trade by reducing financial and administrative burdens and constraints in customs transactions. ACE 2.0 will focus on uncomplicating data structures, which we believe will offer cost and efficiency advantages to government and the private sector alike.

Current Status:
ACE 2.0 builds on the vision of the Re-Imagined Entry Working Group, a collaboration with the trade through the COAC, and is enabled by the legislative framework of 21CCF. The working group recently completed an operational analysis to build a vision of the 21st Century Supply Chain, and it previously looked at redesigning the entry process to increase facilitation and security of U.S.-bound cargo. CBP is currently working with COAC to review high-level ideas about re-imagined processes for cargo entry, collections, exports, post entry, and post audit. CBP is also organizing internal working groups to evaluate those processes from a government perspective. From there, CBP will coordinate with the Trade Support Network (TSN) to develop these ideas in further detail.

CBP delivered the first operational view in the summer of 2020 and just completed a deep dive to analyze the complexities trade faces as part of ACE 2.0. To address these complexities, ACE 2.0 will incorporate several important design features. Two features worth highlighting are interoperability and digital twins. Interoperability means ACE 2.0 will work with a variety of technologies, so that the system can communicate with legacy systems, blockchain, distributed ledger technology (DLT), and future systems, royalty free. A digital twin is a digital representation of the physical item, which identifies the who, what and where. Adopting this premise allows CBP and its trade partners to build a completely transparent supply chain.

The modernized entry process provided by ACE 2.0 will include high-level transformations, such as supply chain transparency; complete automation of the supply chain; data acquisition from non-traditional actors; international standards development over forcing technical changes; and modernization of the in-bond process.

Next Steps:

CBP is moving forward with five projects to test the impact of some ACE 2.0 concepts on different portions of the trade universe: steel, natural gas, oil, food safety, and e-commerce. Each project uses some form of DLT and/or blockchain technologies to advance new capabilities. Through the Silicon Valley Innovation Program (SVIP), CBP is pursuing pre-arrival/pre-release data for steel and pipeline commodity imports.

After ACE 2.0 is implemented, CBP and PGAs will receive better quality data much earlier in the supply chain, often in near-real time from traditional as well as 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.

CBP is organizing internal working groups to evaluate those processes from a government perspective and completing a gap analysis, which will outline the overlaps and differences between ACE and ACE 2.0. Additionally, collaboration with industry stakeholders and trade experts continues to be key to moving forward. Under current projections, CBP aims to start development in 2025.

For more information about ACE and upcoming developments, please visit
https://www.cbp.gov/trade/automated.

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