

CBP and Trade Automated Interface Requirements

ACE Requirements

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U.S. Customs and
Border Protection



Requirements

The Automated Commercial Environment (ACE) Automated Broker Interface (ABI) module permits qualified trade participants to interface directly with the U.S. Customs and Border Protection (CBP) Data Center in order to transmit data pertaining to merchandise being imported into the United States. Qualified trade participants include brokers, importers, port authorities, and computer service centers.

The system is voluntary and is designed to use standard technology available to both large and small businesses. Companies who are not automated can submit data through a service bureau, which provides the capability to communicate with the CBP Data Center in the same way as automated companies.

The basic eligibility requirements for participation are:

- The ability to demonstrate a reputable background and the basic skills for performing entry services.
- The ability to make a commitment for sending not less than 90 percent of entry/entry summary volume electronically.
- The ability to satisfactorily complete all of the qualification testing phases as outlined in this chapter.
- The ability to maintain operational standards for data quantity and quality.
- The ability to maintain timely updates.

Letter of Intent

The letter of intent (LOI) is a written statement of a company's desire to participate in ACE/ABI. It must set forth a commitment to develop, maintain, and adhere to CBP performance requirements and operational standards. Instructions for the letter can be found on cbp.gov at: [ACE Letter of Intent Instructions \(cbp.gov\)](#) When completed, the LOI should be submitted to letterofintent@cbp.dhs.gov on company letterhead.

Upon receipt of the letter of intent, a CBP Client Representative is assigned to serve as a technical advisor during development, testing, and implementation.

Communications

Communications provide the means to transfer data to, and receive data from, the DHS/CBP Trade Partner Infrastructure. Communications access is monitored by internal program controls using account numbers and passwords assigned by CBP to each user participant. Authorized users are further restricted to processes which permit the transmission and receipt of data files only applicable to functions which they are authorized to perform.

A trade partner may choose to connect indirectly to CBP via a service center. A service center is an entity that sets up and manages its client's transactions in order to transmit application data to CBP on the client's behalf. The service center uses its MQ server and network connections to transmit the client's data to CBP.

A trade partner may choose to connect directly to CBP's trade infrastructure via the Internet or a dedicated circuit. This involves establishing data connectivity and MQ definitions. Trade participants typically acquire application software developed by approved software vendors that have successfully completed a period of intensive testing and qualification with CBP Client Representatives; however, trade participants may self-develop their own application software based on the technical specifications and implementation guidelines provided by CBP Trade participants establishing data connectivity with CBP will also be required to submit an Interconnection Security Agreement (ISA).

Data Transmission

CBP provides trade participants with multiple options to implement data communication methods, including:

- MQIPT (MQ Internet Pass-Thru)
- Internet-based IPSEC and IKEV2 LAN to LAN Connection
- AT&T Multiprotocol Label Switching (MPLS) VPN
- Service Centers
- Value Added Networks (VANS)

Procurement of Equipment and Software

Based on communications needs, the trade participant is responsible for ordering necessary hardware and software. This information is best obtained through each participant's approved software vendor.

When the trade participant completes equipment and software procurement, the next step is to contact the assigned CBP Client Representative to discuss options for network and MQ configuration. Work tickets will be created to route the request to DHS/CBP engineering resources:

- DHS/OneNet: implements the network connection (not required for MQIPT connections)
- CBP Middleware configures MQ connections and queues

CBP Pre-Test Responsibilities

Client Representative Branch personnel create the necessary client files in the CBP database in preparation for the communications interface test. These include files for the user, data processing site, and filer code. CBP's final pre-test responsibility is to verify the accuracy of information in the client files.

Communications Testing

CBP data center personnel including the Network Management Team and Middleware Branch will work to resolve communications problems encountered during the initial interface attempt between the new client and the ABI application. Once application testing commences, the Client Representative will facilitate any problems encountered.

Software Development

A program system is comprised of numerous elements. A potential ACE user must have a clear understanding of these requirements prior to any programming efforts. CBP Client Representatives are very knowledgeable in these areas and provide guidance through the developmental phase.

If a software package is being developed or purchased, these are some of the capabilities that need to be considered.

Data Storage Capacity: Consider the many thousands of lines of data needed to store the harmonized tariff numbers and related data with past, present, and future effective dates associated with the tariff numbers. Also, data retention of daily transactions for a suitable length of time is another serious storage consideration. CBP cannot reject entry summaries after 10 working days following the presentation date for all errors, including Census errors. The only exception to these time frames is for all entry summaries subject to anti-dumping and/or countervailing duty cases (ABI and non-ABI). These summaries may be rejected up to 60 days without supervisory approval, and up to 90 days with Headquarters approval. CBP rejection policy for entry summary requires filers to be able to correct and retransmit entry summary data for at least five days after filing and payment of the entry summary.

Importer/Bond Queries and Importer/ Consignee File Add Transactions: The system must be able to query the CBP Importer/Bond file. This function works in conjunction with the CBP Form (CBPF) 5106 (Notification of Importer's Number, or Application for Importer's Number, or Notice of Change of Name or Address). This capability should be programmed early in the development process and, when properly utilized, will prevent many importer/bond errors.

General Rules: Unused fields, which are defined as numeric, should not be zero filled. These fields should be space filled or data errors may result.

Data should not be placed in fields defined as filler. If data is present in filler fields, an error message may be system generated.

When transmitting data to ACE, all letters must be upper case. While some applications may not return specific error messages when detecting lower-case letters, CBP cannot guarantee the consistency of processing results for data transmitted in lower case. For example, if *tw* is transmitted instead of *TW* as the country-of-origin code for Taiwan on an entry summary transaction (AE), the error F408 Country of origin Unknown is system generated. Transmitting lower-case letters may result in delays of shipment releases and receipt of other important information obtained through ACE/ABI.

Entry Numbers: ACE users should ensure through their system controls that no entry number is duplicated and that the check digit is properly computed. Appendix E Valid Entry Numbers contains additional information on the construction of a valid entry number and computation of the check digit.

Line-Item Numbers: A line item refers to a commodity listed on an entry summary or entry document which includes a net quantity, entered value, harmonized tariff number, charges, rate of duty, and other pertinent information. Some line items, however, may actually include more than one tariff number and value. For example, most items found in Chapter 99 of the *Harmonized Tariff Schedule of the United States Annotated* (HTS) require more than one tariff number.

Each entry summary transaction must start with *1* for the first line item and be incremented by one for each additional line item. The line-item number must also correspond to the line number on the CBP Form (CBPF) 7501 (Entry Summary). This facilitates locating errors in the CBPF-7501 when error messages relating to line-item data are system generated to the user.

Harmonized Tariff Number: The information associated with a harmonized tariff number is essential and the placement of the proper calculation of duties, taxes, fees, and other charges on the CBPF-7501 and/or ACE Entry Summary ABI Transmission must be accurate.

Harmonized Tariff Number Edit Criteria: The edit codes for harmonized tariff numbers, value, quantity, and date/country restrictions are listed elsewhere in this document. In some cases, the edit criteria are provided by the CBP. User-developed programs must contain the necessary logic for utilizing these edit criteria and their related logical editing when preparing entry summaries.

File Query: The programming system must be capable of performing the various queries necessary for the accurate preparation of entry documents and/or ACE Entry Summary ABI Transmission. Some query results will be very large; the system must be programmed to allow messages up to 100MB.

Courtesy Notices of Liquidation: CBP provides courtesy notices of liquidation to ACE users through the automated system provided the user's system is programmed to receive them.

Error Correction Capabilities: The user's system must be designed to transmit replace, correct, and delete transactions for previously transmitted data.

If a software vendor or service bureau is being used, CBP suggests that the chosen system take advantage of all of the ACE capabilities. These include but not limited to statement processing Automated Clearinghouse (ACH), extract reference files, courtesy notice, currency rates of exchange, census warning override, Document Imaging System (DIS), temporary in-bond processing, reconciliation, and drawback.

Documents that are printed by a user's system must be in accordance with existing CBP directives, and in all instances, the printed data must reflect the electronic data that was transmitted through ACE.

It is essential that, on a timely and ongoing basis, the user be able to implement necessary changes that are made to software to prevent repetitive errors.

While the above are examples of the developmental issues that need to be addressed when designing software or purchasing a software package, they are listed as discussion points, rather than as a complete list of the system requirements.

Applications Testing

Upon satisfactory completion of the initial communications testing, there are specific application abilities, which must be demonstrated. The capability to properly handle these applications is the prerequisite to entering the qualifications testing phase.

Initially, during applications testing, the ACE participant queries the ACE Importer/Bond file. If the importer is not in the ACE file, it must be added using the CBPF-5106 add transaction. Throughout this period, the ACE participant should utilize all of the available query capabilities of the ACE system.

The data transmitted during this phase must represent the ACE participant's normal business transaction mix. Any errors should be discussed with the CBP Client Representative, corrected and retransmitted, as appropriate, through ACE. Volume must be increased to at least 90 percent of the participant's monthly entry summary filing volume and the overall error rate must be less than 10 percent of the transactions transmitted. Unresolved, repetitive errors will preclude a move to the qualifications testing phase.

The final step of applications testing is the completion of a test provided by the CBP Client Representative. The test must be taken by the actual participant (not the service bureau or the vendor) and must be passed with 100 percent accuracy. Anyone developing new software may be required to submit hard copies of the CBP Forms 7501 (Entry Summary) corresponding to those test questions, which pass the ACE edits.

Transmission Quality

ABI participation requires that trade participants meet and maintain the standards of security and quality of data. For example, required Importer Security Agreements must be approved and kept up-to-date and trade partners with repeat system errors need to address the quality of the data with their users. Client Representatives may reach out when an assessment establishes a lack of data quality which needs to be addressed.

Qualifications Testing

The qualification testing period is a minimum of 10 days. Transmissions during this period are expected to consist of the participant's actual entry summary filings. Any repetitive or fatal error will be cause for restarting the 10-day count, as will any day in which the day's error rate exceeds five percent of the user's volume. Fatal errors are those which do not allow an entry summary to be processed, such as a duplicate or invalid entry number.

Upon successful completion of qualifications testing, the CBP Client Representative makes a final review of the participant's testing results and coordinates the move to operational status. The CBP Client Representative also discusses with the participant development and testing of other system capabilities.

Note: As new ACE capabilities become available, previously qualified users may be subject to retesting to ensure that operational standards for quality and volume of data are maintained.

Operational Status

Operational entry summary status is achieved when the qualification testing period is satisfactorily completed. An operational participant must follow policies and maintain minimum standards. It is the participant's responsibility to uphold the policy that transmitted data and document information is accurate. The following is a list of standards to be maintained:

- A minimum of 90 percent of total entry summary volume, on a monthly basis, must be transmitted electronically to ACE.
- System-identified errors must be corrected and retransmitted prior to printing and presentation of the entry summary documents.

- Transmitted data and printed data must correspond exactly.

These standards must be maintained to remain an operational client. CBP monitors operational participant's work and failure to maintain these standards will result in losing operational status.

Cargo Release Testing

Once a user becomes operational on entry summary processing in a given port, cargo release testing in the same port can begin.

During testing for cargo release, a volume of data is transmitted that represents normal business for a minimum of three days with an error rate of less than 10 percent and no repetitive errors. These test transmissions must reflect both entry and certification transactions.

Users must be capable of keeping updated files with cargo release information and subsequent examination and release Cargo Release information. No document should be printed until a certified message is received.

Statement Processing Testing

Statement processing is an optional feature and those ACE participants who wish to participate in the daily batch statement feature must demonstrate the ability to print the appropriate statement information as provided in the Daily Statement chapter of this document. In order to test the client's ability to produce a statement, the following steps must be taken.

- CBP transmits entry summary sample data to the participant, which generates a preliminary statement and a final statement. This data is used to test the filer's statement print programs and conditions such as totaling duties and fees.
- The ACE participant sends the preliminary and final statements printed using the participant's software to the CBP Client Representative. If the statement contains errors, this process must be repeated.

Computer Security

Computer security is designed to protect CBP information while it is processed, stored, and disseminated. Protection of vital information processed by our system is vital. Users of CBP automated systems are key guardians and defenders of information integrity.

Customs and Trade Automated Interface Requirements

If circumstances arise which you feel may threaten your organization's computer security; you should consider changing your password. Coordinate all password changes with your Client Representative.

In accordance CBP Information Systems Security Policy, all participants that transmit electronic data directly to CBP or connecting through Secure File Transport Protocol (SFTP) are required to have a signed Interconnection Security Agreement (ISA) on file with CBP. Instructions for completing the ISA can be found at: [Instructions for CBP Interconnection Security Agreement](#)