

Appendix E (approved 11-7-2023)

Testing Process for Certification of Service Providers and Automated Systems

For purposes of this Appendix the following terms and abbreviations are used:

- Testing Central - TC
- Certified Service Provider - CSP
- Certified Automated System - CAS
- Certified Automated System Provider - CAS Provider
- CSP or CAS Applicants - CSP or CAS candidate

A. Purpose of testing.

System testing and certification takes place prior to the Streamlined Sales Tax Governing Board Inc. (SSTGB) executing a contract with a CSP or a CAS provider and testing is ongoing as laws and rules change. The testing process evaluates determination of tax jurisdictions, tax application, exemptions and deductions, tax calculations, and completion and transmission of the SER, including the financial transaction. Ongoing testing reviews systems for accuracy after system changes, updates to tax rules, and boundary and rate table changes.

The SSUTA and contract allow a CSP and Model 2 Seller (uses a CAS) liability relief in all member states for certain transactions processed by the CSP or a CAS.

Areas not reviewed in the certification process, but are reviewed in the audit process, of a CSP or CAS include:

- Set up and integration of the CAS software with the seller's system.
- Mapping of the seller's products to the codes and tax rules of the CSP or CAS.
- Transactions not processed through the CSP or in a CAS
- Transactions processed during a period when a seller has not timely applied updates.

B. Criteria to be Tested.

States will evaluate the following during the testing process.

1. Tax Rules

- a. Product Categories - Taxability and Exemptions
 - i. Tax rule hierarchy among competing rules
 - ii. Tax rule updates or changes not approved by the state – States should review these rules and certify or notify CSP of incorrect rule.
 - iii. Goods or service based special taxability
 1. Caps and Thresholds
 - iv. Delivery charges
 - v. Sales Tax Holidays
 1. Products included
 2. Caps and Thresholds
 3. Transaction dates

- b. Entity Exemptions - Taxable or Exempt
 - i. Test Deck contains an indicator showing if a customer is taxable or exempt. It does not test the reason for exemption, the accurate completion of an exemption certificate, or when the exemption certificate is accepted.

Minimum Requirements: The CSP or CAS must have tax rules in place that correspond with State Taxability Matrices.

If a CSP's seller sells products not covered by the Library of Definitions, the CSP or CAS should create the necessary Tax Rules for those product categories and have the new Tax Rules certified by the states. States may request a listing of all tax rules and their corresponding taxability from a CSP or CAS provider for their review, as needed.

2. Sourcing - Tax Rates

- a. Determine proper taxing jurisdictions based on the state's destination or origin sourcing rules.
 - i. State Jurisdiction
 - ii. Local Jurisdiction
 - iii. Enterprise Zones
 - iv. Special Taxing Jurisdictions
- c. Determine proper tax rates based on transaction date and jurisdiction.
- d. Determine proper reporting of tax to each jurisdiction.

Minimum Requirement: Jurisdiction information must meet the standard set by state in its Boundary Table. Tax Rates for each jurisdiction must comply with each state's Rate Table. See Rates and Boundary Databases chapter in the Technology Guide.

3. Tax Calculations

- a. Uniform rounding rules (Section 324, SSUTA)
- b. Returns and credits (test calculation by using a negative sale amount)
- c. Caps and thresholds

4. SER

- a. Completion of SER

- b. Filing of SER to include the transmission to the state using the standard protocol approved by the Governing Board.
- c. Remittance using SER - Test accuracy in completing the financial transaction. No funds are transferred during testing.

Testing the SER is to be completed prior to certification of a CSP or CAS candidate and prior to implementation of changes to the SER Schema.

C. CSP or CAS Self Evaluation Prior to Testing by States.

Testing should begin when the candidate determines their system is ready. A self-evaluation is completed by running a test deck provided by Testing Central (TC) to determine if the system produces the expected results.

D. CSP and CAS Online Test System.

An online test system must be provided by a candidate during the test phase and by the CSP or CAS provider on an ongoing basis to use in day-to-day testing and testing when changes to the systems are made. This site shall be available 24/7.

Online entry screen. A web-based, password-protected, online entry and upload/download screen shall be available and allow states the capability to enter transactions to test taxability, sourcing, tax calculations and verify the results. This functionality allows the individual states to quickly identify problems with the CSP or CAS provider/candidate tax engine to accurately calculate and return a response on a transaction for each individual state and the unique processing requirements for that state's sourcing and taxing rules.

The online screen will have a minimum of the following features as found in most shopping carts:

Invoice date	Order received address Ship to address
Shipping method	SKU number
Gross sales price	Taxing jurisdiction(s)
Tax rate(s)	Tax calculation

Upload/Download abilities. The online test site must be capable of receiving the test decks as described in section E, computing the output, and returning the output files.

E. Test Transactions (Test Deck).

The test transactions (Test Deck) are used to review sourcing, tax rates, tax calculations, and product categories taxability. The test deck also provides data to be used in testing the SER.

The test deck may include erroneous transactions which can represent the entire range of anticipated errors such as incorrect addresses and missing data.

Test decks should be of sufficient size to accommodate all types of transactions. The size of the test decks will vary depending on each state's needs. States with a single tax rate may not need to do as much extensive sourcing testing as states with many tax jurisdictions.

States may choose to include all types of transactions in one test deck. A state may also begin testing with a smaller test deck to test sourcing and rates. As testing progresses, the state can include additional transactions to test product categories and

exempt customers or they may choose to utilize multiple test decks. A test deck may test basic boundary and rate issues, complex issues, product categories or any combination of these issues.

Submission of Test Decks. Test decks are submitted to CSP or CAS candidates and CSP or CAS providers directly by the state or by TC.

- **Candidate Self-evaluation:** Each state will provide TC with a test deck and expected results that TC will forward to the candidate for use in evaluating the candidate’s system prior to testing by the states.
- **Certification Process:** Initially, TC will send the state’s last quarterly test deck to the CSP candidate. If a state did not have listings in that test deck or needs to send additional test decks, the state will send their test deck to the CSP or CAS candidates as needed.
- **Quarterly Testing:** TC compiles test decks submitted by each state into one test deck. The combined test deck is sent to all CSPs by the first of the month prior to the start of each calendar quarter. The quarterly test deck is used to verify changes in new rate and boundary tables posted quarterly and product taxability for tax rules included in the Taxability Matrix: Library of Definitions (SSTGB Form F0014).
- **Ongoing Change Requests:** States will send their test decks to CSP or CAS providers as needed to verify changes made or requested by the state, CSP, or CAS provider.
- **Expanded Test Deck:** Tax rules specific to a CSP or CAS should be tested through an expanded test deck. States can test either by sending the test deck directly to the CSP or CAS to process or by uploading to the CSP or CAS online test system. States should test all tax rules a CSP uses by using the expanded test deck. The state may also use this to test a CSP’s tax rule on a specific product or category of products. Testing of all CSP tax rules should be conducted at least annually.

File Format: The Test Deck must be in a comma delimited text format (.csv) with no header row. Do not embed commas in any field.

The test deck fields, format, record length, and required order are listed below.

Number (Column)	Field Name	Description	Format	Length	Mandatory Field
1 - A	Date	Transaction date	YYYYMMDD	8	N
2 - B	Record Number	Identifying number	Numeric	8	Y
3 - C	Seller SSTID	Seller SSTID	Alpha/Numeric	9	Y
4 - D	Seller Location ID	Seller location ID	Alpha/Numeric	9	N
5 - E	Seller State	State where seller is located	Alpha	2	N
6 - F	Delivery Method	Is delivery in seller vehicle?	Y/N	1	N
7 - G	Customer Entity Code	Is customer taxable?	T/E	1	Y

8* - H	Order Received Address	Street name, number, or PO Box	Alpha/Numeric	40	N
9* - I	Order Received Suite	Suite, Apt, Lot	Alpha/Numeric	40	N
10* - J	Order Received City	Name of city	Alpha	40	N
11* - K	Order Received State	2-character state abbreviation	Alpha	2	N
12* - L	Order Received Zip	5-character zip code	Numeric	5	N
13* - M	Order Received Zip Plus	4-character zip extension	Numeric	4	N
14 - N	Ship to Address	Street name, number, or PO Box	Alpha/Numeric	40	Y
15 - O	Ship to Suite	Suite, Apt, Lot	Alpha/Numeric	40	N
16 - P	Ship to City	Name of city	Alpha	40	Y
17 - Q	Ship to State	2-character state abbreviation	Alpha	2	Y
18 - R	Ship to Zip Code	5-character zip code	Numeric	5	Y
19 - S	Ship to Zip Plus	4-character zip extension	Numeric	4	N
20 - T	Reference Number	Reference Number	Numeric	19	N
21 - U	Amount of Sale	Total amount of sale	Numeric	15 including 2 decimals	Y

*** Fields 8 through 13 are only to be used by states having origin sourcing for in-state sales.**

During processing, the Reference Number and Customer Entity Code shall be used as follows:

- Reference Number & 'T' = Taxable unless Reference Number is coded as exempt on the state's Tax Matrix
- Reference Number & 'E' = Exempt (Customer provided exemption certificate, does not matter if Reference Number is taxed or exempt)
- No Reference Number & 'T' = Taxable (If Reference Number is not listed, default for the product is taxable)
- No Reference Number & 'E' = Exempt (Customer provided exemption certificate, does not matter if Reference Number is taxed or exempt)

An explanation of each field and what can be tested with that field is as follows. A single entry may test for more than one issue, for example you may test sourcing, rates, and taxability in one entry.

1. Date - Date of the transaction

- a. Blank dates will be populated with current date by CSP or CAS provider if the test deck is not the Quarterly Test Deck. If the date is blank in the Quarterly test deck sent by Testing Central the CSP will populate the date with the first day of the testing quarter.
- b. Dates may be used to:
 - i. Test for rate changes - by entering a date prior to rate change and one after the rate change.
 - ii. Test for tax rates on returned items purchased prior to a rate change - Use a negative amount for the return amount and a date prior to the rate change (to represent the purchase date).

2. Record Number
 - a. Missing, duplicate, or nonnumeric record numbers will generate errors.
3. Seller SSTID (See section I)
 - a. Seller SSTIDs are provided for each state to use in the Test Deck. States may use some or all of the Seller SSTIDs for that state.
4. Seller Location ID
5. Seller State
 - a. State seller is located in may be different from state where order is received.
 - b. In-State Seller – determined by seller state versus ship to state.
 - c. Out-of-State Seller – determined by seller state versus ship to state.
6. Delivery Method - No longer used
7. Customer Entity Code
 - a. Identifies taxable or exempt customers.
 - i. T - Taxable customer
 - ii. E - Exempt Customer
 - iii. Include both T and E codes in the test deck
 - iv. Does not check validity of exemption - completed exemption certificate, exempt entity, prescription provided, etc.
8. to 13. Order Received Address
 - a. Tests sourcing for origin states
 - i. Include vendors receiving orders in state with deliveries in and out of state
 - ii. Include vendors receiving orders out of state with deliveries in and out of state
 - b. States with destination sourcing do not use fields 8 to 13
14. to 19. Ship to Address
 - a. Tests sourcing for destination states
 - b. Tests sourcing for out-of-state deliveries for origin states
 - i. Include delivery addresses in and out of state.
 - ii. Include vendors with addresses in and out of state.

Address information in fields 8-19 is used to test sourcing -- determines which jurisdictions receive tax on the transaction. States may choose to include transactions for all jurisdictions or a sampling of jurisdictions. Transactions should be included for jurisdictions that impose tax and those that do not impose tax.

States that have complex boundary identification issues should include addresses that encompass multiple jurisdictions or cross city, county, and zip code boundaries. All levels of address should be represented including street level, address with 9-digit zip codes and addresses that only have 5-digit zip codes and PO Boxes.

Jurisdiction testing should return the FIPS code for each jurisdiction for that address. The FIPS code is used to determine the tax rates. The tax table has rates listed by FIPS code.

Watch for:

- Sourcing - is it based on order received address or ship to address (origin or destination sourcing)
- Use of address level information (must be exact match to boundary table information)
- Use of 9-digit zip code information (if address level does not match)
- Use of 5-digit zip code information (if no address or 9-digit zip code match) - this will return the lowest tax rate for that zip code.

If the test deck addresses are not run through a CASS (Coding Accuracy Support System) and the addresses are not in proper format or 9-digit zip code is missing, they will probably not match to the correct jurisdictions.

If USPS does not deliver to an address, that address will not have a 9-digit zip code. Most CASS systems will not correct the format of an address not in the USPS system. However, other delivery companies may make delivery to the address.

Testing at the address level will only match if the address is exactly as in the boundary table. Testing at the address level does not need to match the 9-digit zip code.

Testing should be done for PO Boxes as products can be shipped to a PO Box. A PO Box should have a 9-digit zip code, a match should be made at that level.

20. Reference Number

- a. Tests taxability of products and administrative definitions in SSUTA using Reference Numbers from Tax Matrix – Library of Definitions (SSTGB Form F0014) as revised each year in May and completed by the each state by August 1 of each year. Testing using reference numbers from the current year's tax matrix will begin with the fourth quarter testing. Results should correspond with the state's Tax Matrix. Revisions to the Matrix made at other times should be added to the test decks beginning the quarter after the states are required to complete the Matrix updates.
- b. Include all Reference Numbers in the test deck to validate proper tax application, except the following:
 - Reference #s 11110+, 11120+, 11130+ (taxes included or excluded in sales price), and 31000 (digital products excluded) cannot be tested on this test deck. These areas allow states to list state specific items. A reference number is assigned, however each state may have a different item listed for that reference number. Because it is not consistent between all states the CSP cannot assign a specific tax rule to that reference #. States – Do not include these numbers in the test decks. However, if this affects your state, you may want to contact the CSP to review their product codes related to these items to help ensure they are handling them properly.

F. Test Deck Output.

Test Deck Output Transmission

- Test Decks submitted online: Upon completion of processing, the candidate, CSP, or CAS provider shall notify the state that the Test Deck Output files are available for retrieval on their online site. The testing state will download the data and compare the actual results with the expected results.
- Test Decks submitted Quarterly by TC: The CSP or CAS provider will upload the Test Deck Output file to the Sharefile designated for that CSP or CAS provider for Quarterly Test Deck Results no later than 15 days prior to the beginning of the tested quarter. States will download the files to review. Any changes or updates to the state's rate or boundary database sent to the CSP or CAS after the 1st of the month prior to the quarter will be individually tested with that state as required by that state.

The resulting Test Deck Output file will include all transaction records with jurisdiction and rate results, including transaction records with Errors, in the same order as in the Test Deck.

File Names: Resulting Test Deck Output file will follow this naming convention:

014TD20100101R.csv

First three digits will be the last three digits of the CSP or CAS SSTID, 'TD' indicates test deck, date (YYYYMMDD) test was completed. The last character is 'R' for results.

File Format: The Test Deck Output files will be in a comma delimited text format (.csv) with no header row. Do not embed commas in any field.

Results File

Each row of the Results file shall contain the original uploaded data plus fields appended with the results or error codes and explanation in the same order as the Record Numbers as listed in the test deck.

Standardized Address: The results file must include the CSP or CAS system's standardized address. This is the address the CSP or CAS system is using to determine the taxing jurisdictions (FIPS codes) in the state boundary files.

Errors: A record or file may error for reasons such as an incorrect number of record fields in the file, fields (including blanks/nulls) that are not separated by commas and errors specific to the contents of the field. Transactions that cannot be properly processed should Error. The Error Code and explanation is listed in columns 28 and 29.

The Results file fields, format, record length, and required order are listed below.

Number (Column)	Field Name	Description	Format	Length
1 - A	Date	Transaction date	YYYYMMDD	8
2 - B	Record Number	Identifying number	Numeric	8
3 - C	Seller SST ID	Seller SST ID	Alpha/Numeric	9
4 - D	Seller Location ID	Seller Location ID	Alpha/Numeric	9
5 - E	Seller State	State where seller is located	Alpha	2
6 - F	Delivery Method	Is delivery in seller vehicle?	Y/N	1
7 - G	Customer Entity Code	Is customer taxable?	T/E	1
8* - H	Order Received Address	Street name, number, or PO Box	Alpha/Numeric	40
9* - I	Order Received Suite	Suite, Apt, Lot	Alpha/Numeric	40
10* - J	Order Received City	Name of city	Alpha	40
11* - K	Order Received State	2-character state abbreviation	Alpha	2
12* - L	Order Received Zip Code	5-character zip code	Numeric	5
13* - M	Order Received Zip Plus	4-character zip extension	Numeric	4
14 - N	Ship to Address	Street name, number, or PO Box	Alpha/Numeric	40
15 - O	Ship to Suite	Suite, Apt, Lot	Alpha/Numeri	40
16 - P	Ship to City	Name of city	Alpha	40
17 - Q	Ship to State	2-character state abbreviation	Alpha	2
18 - R	Ship to Zip Code	5-character zip code	Numeric	5
19 - S	Ship to Zip Plus	4-character zip extension	Numeric	4
20 - T	Reference Number	Reference Number	Numeric	5
21 - U	Amount of Sale	Total amount of sale	Numeric	15 including 2 decimals
22 - V	Standardized address for Rate	Street Name, number, or PO Box	Alpha/Numeric	40
23 - W	Suite for Rate	Suite, Apt Lot	Alpha/Numeric	40
24 - X	City for Rate	Name of City	Alpha	40
25 - Y	State for Rate	2-character state abbreviation	Alpha	2
26 - Z	Zip Code for Rate	5-Digit Zip Code	Numeric	5
27 - AA	Zip Plus for Rate	4-Digit Zip Plus	Numeric	4
28 - AB	Error Code	Type of error	Numeric	2
29 - AC	Error Comments	Explanation of error	Alpha/Numeric	100
30 - AD	Result Type	0=good address used 2=address unknown, fallback to zip	Numeric	1
31 - AE	Taxability Code	Taxable/Non-taxable flag for item	Y/N	1
32 - AF	Total Sales Amount	Numeric value representing total sales amount	Numeric	15 including 2 decimals
33 - AG	Total Tax Amount	Sum of FIPS Tax Amounts 1 - 20	Numeric	15 including 2 decimals

34 – AH	FIPS Jurisdiction Code 1	First FIPS Jurisdiction Code	Numeric	5
35 – AI	FIPS Tax Rate 1	First FIPS Tax Rate	Numeric	6 including 5 decimals
36 – AJ	FIPS Tax Amount 1	Numeric value representing tax for first FIPS	Numeric	15 including 2 decimals
37 – AK	FIPS Jurisdiction Code 2	Second FIPS Jurisdiction Code	Numeric	5
38 – AL	FIPS Tax Rate 2	Second FIPS Tax Rate	Numeric	6 including 5 decimals
39 – AM	FIPS Tax Amount 2	Numeric value representing tax for second FIPS	Numeric	15 including 2 decimals
40 – AN	FIPS Jurisdiction Code 3	Third FIPS Jurisdiction Code	Numeric	5
41 - AO	FIPS Tax Rate 3	Third FIPS Tax Rate	Numeric	6 including 5 decimals
42 – AP	FIPS Tax Amount 3	Numeric value representing tax for third FIPS	Numeric	15 including 2 decimals
43 – AQ	FIPS Jurisdiction Code 4	Fourth FIPS Jurisdiction Code	Numeric	5
44 – AR	FIPS Tax Rate 4	Fourth FIPS Tax Rate	Numeric	6 including 5 decimals
45 – AS	FIPS Tax Amount 4	Numeric value representing tax for fourth FIPS	Numeric	15 including 2 decimals
46 – AT	FIPS Jurisdiction Code 5	Fifth FIPS Jurisdiction Code	Numeric	5
47 - AU	FIPS Tax Rate 5	Fifth FIPS Tax Rate	Numeric	6 including 5 decimals
48 – AV	FIPS Tax Amount 5	Numeric value representing tax for fifth FIPS	Numeric	15 including 2 decimals
49 – AW	FIPS Jurisdiction Code 6	Sixth FIPS Jurisdiction Code	Numeric	5
50 – AX	FIPS Tax Rate 6	Sixth FIPS Tax Rate	Numeric	6 including 5 decimals
51 – AY	FIPS Tax Amount 6	Numeric value representing tax for sixth FIPS	Numeric	15 including 2 decimals
52 – AZ	FIPS Jurisdiction Code 7	Seventh FIPS Jurisdiction Code	Numeric	5
53 – BA	FIPS Tax Rate 7	Seventh FIPS Tax Rate	Numeric	6 including 5 decimals
54 – BB	FIPS Tax Amount 7	Numeric value representing tax for seventh FIPS	Numeric	15 including 2 decimals
55 – BC	FIPS Jurisdiction Code 8	Eighth FIPS Jurisdiction Code	Numeric	5
56 – BD	FIPS Tax Rate 8	Eighth FIPS Tax Rate	Numeric	6 including 5 decimals
57 – BE	FIPS Tax Amount 8	Numeric value representing tax for eighth FIPS	Numeric	15 including 2 decimals
58 - BF	FIPS Jurisdiction Code 9	Ninth FIPS Jurisdiction Code	Numeric	5
59 – BG	FIPS Tax Rate 9	Ninth FIPS Tax Rate	Numeric	6 including 5 decimals
60 – BH	FIPS Tax Amount 9	Numeric value representing tax for ninth FIPS	Numeric	15 including 2 decimals
61 – BI	FIPS Jurisdiction Code 10	Tenth FIPS Jurisdiction Code	Numeric	5
62 – BJ	FIPS Tax Rate 10	Tenth FIPS Tax Rate	Numeric	6 including 5 decimals
63 – BK	FIPS Tax Amount 10	Numeric value representing tax for tenth FIPS	Numeric	15 including 2 decimals
64 – BL	FIPS Jurisdiction Code 11	Eleventh FIPS Jurisdiction Code	Numeric	5

65 – BM	FIPS Tax Rate 11	Eleventh FIPS Tax Rate	Numeric	6 including 5 decimals
66 – BN	FIPS Tax Amount 11	Numeric value representing tax for eleventh FIPS	Numeric	15 including 2 decimals
67 – BO	FIPS Jurisdiction Code 12	Twelfth FIPS Jurisdiction Code	Numeric	5
68 – BP	FIPS Tax Rate 12	Twelfth FIPS Tax Rate	Numeric	6 including 5 decimals
69 – BQ	FIPS Tax Amount 12	Numeric value representing tax for twelfth FIPS	Numeric	15 including 2 decimals
70 – BR	FIPS Jurisdiction Code 13	Thirteenth FIPS Jurisdiction Code	Numeric	5
71 – BS	FIPS Tax Rate 13	Thirteenth FIPS Tax Rate	Numeric	6 including 5 decimals
72 – BT	FIPS Tax Amount 13	Numeric value representing tax for thirteenth FIPS	Numeric	15 including 2 decimals
73 – BU	FIPS Jurisdiction Code 14	Fourteenth FIPS Jurisdiction Code	Numeric	5
74 – BV	FIPS Tax Rate 14	Fourteenth FIPS Tax Rate	Numeric	6 including 5 decimals
75 – BW	FIPS Tax Amount 14	Numeric value representing tax for fourteenth FIPS	Numeric	15 including 2 decimals
76 – BX	FIPS Jurisdiction Code 15	Fifteenth FIPS Jurisdiction Code	Numeric	5
77 – BY	FIPS Tax Rate 15	Fifteenth FIPS Tax Rate	Numeric	6 including 5 decimals
78 – BZ	FIPS Tax Amount 15	Numeric value representing tax for fifteenth FIPS	Numeric	15 including 2 decimals
79 – CA	FIPS Jurisdiction Code 16	Sixteenth FIPS Jurisdiction Code	Numeric	5
80 – CB	FIPS Tax Rate 16	Sixteenth FIPS Tax Rate	Numeric	6 including 5 decimals
81 – CC	FIPS Tax Amount 16	Numeric value representing tax for sixteenth FIPS	Numeric	15 including 2 decimals
83 – CD	FIPS Jurisdiction Code 17	Seventeenth FIPS Jurisdiction Code	Numeric	5
83 – CE	FIPS Tax Rate 17	Seventeenth FIPS Tax Rate	Numeric	6 including 5 decimals
84 – CF	FIPS Tax Amount 17	Numeric value representing tax for seventeenth FIPS	Numeric	15 including 2 decimals
85 – CG	FIPS Jurisdiction Code 18	Eighteenth FIPS Jurisdiction Code	Numeric	5
86 – CH	FIPS Tax Rate 18	Eighteenth FIPS Tax Rate	Numeric	6 including 5 decimals
87 – CI	FIPS Tax Amount 18	Numeric value representing tax for eighteenth FIPS	Numeric	15 including 2 decimals
88 – CJ	FIPS Jurisdiction Code 19	Nineteenth FIPS Jurisdiction Code	Numeric	15 including 2 decimals
89 – CK	FIPS Tax Rate 19	Nineteenth FIPS Tax Rate	Numeric	6 including 5 decimals
90 – CL	FIPS Tax Amount 19	Numeric value representing tax for nineteenth FIPS	Numeric	15 including 2 decimals
91 – CM	FIPS Jurisdiction Code 20	Twentieth FIPS Jurisdiction Code	Numeric	5
92 – CN	FIPS Tax Rate 20	Twentieth FIPS Tax Rate	Numeric	6 including 5 decimals
93 – CO	FIPS Tax Amount 20	Numeric value representing tax for twentieth FIPS	Numeric	15 including 2 decimals

Error Codes and explanation of Error Codes.

Error Code	Error Field	Message
01	Date	Transaction date invalid format
02	Seller SST ID	Seller SST ID invalid or missing
03	Seller State	State invalid
04	Ship to Address	Address unavailable or incorrect format
05	N/A	N/A
06	Ship to City	City unavailable or incorrect format
07	Ship to State	State unavailable or incorrect format or zip does not match
08	Ship to Zip Code	Zip code unavailable or incorrect format
09	Ship to Zip Plus	Zip plus incorrect format
10	Reference Number	Reference Number invalid
11	Amount of Sale	Amount of sale incorrect format or missing
12	Entire Record	Improper record
13	Customer Entity Code	Code missing
14	Record Number	Record number missing
15	Order Received Address	Address unavailable or incorrect format
16	Order Received to City	City in incorrect format
17	Order Received to State	State in incorrect format or zip does not match
18	Order Received to Zip Code	Zip code in incorrect format
19	Order Received to Zip Plus	Zip plus incorrect format

G. End-to-End Testing. After states verify accuracy of tax calculations, end-to-end testing should be performed. End-to-end testing allows the state to review the process from entry of the transaction through the transmission of the SER, including the financial transaction in test mode transmission to the state using the standard protocol approved by the Governing Board.

End-to-end testing may be done by using the same test decks used to verify accuracy of tax calculations or a state may choose to use a smaller test deck(s) to verify accuracy of SER for multiple or complex jurisdictions. The test deck should be checked for accurate results prior to testing the SER. The test deck is sent to the CSP or CAS candidate by using the CSP or CAS online test system or by email as determined at that time.

The CSP or CAS candidate should process the test deck and complete the SER including applicable financial transaction information. The completed SER should be sent to the state in test mode as if it were an actual return being filed. The CSP or CAS candidate will need to contact each state to obtain information on where the SER test results are filed and any password or ID information the state may require. Each transaction shall have a unique system identification number. The data submitted and the data returned shall be saved as the transaction details. The state will verify if the SER is properly processed and the fields contain the correct data.

Testing is to confirm the process is accurate and conforms to the SST Guidelines. The official XML schemas can be found on the FTA E-Standards (formerly TIGERS)

website at <http://www.statemef.com>, under Projects, SST-Streamlined Sales Tax and on Streamlined’s website, www.streamlinedsalestax.org, under Technology. The Implementation Guide on the SSTP website technology page provides details as to what is included in the SER schema.

H. SST IDs for testing.

Each state is provided with 50 SST IDs to use in the testing process. These SST IDs are readily identifiable so they will not be comingled with production transactions.

State/Possession	Abbreviation	Beginning Number	Ending Number
ALABAMA	AL	S00001001	S00001050
ALASKA	AK	S00002001	S00002050
ARIZONA	AZ	S00003001	S00003050
ARKANSAS	AR	S00004001	S00004050
CALIFORNIA	CA	S00005001	S00005050
COLORADO	CO	S00006001	S00006050
CONNECTICUT	CT	S00007001	S00007050
DELAWARE	DE	S00008001	S00008050
DISTRICT OF COLUMBIA	DC	S00009001	S00009050
FLORIDA	FL	S00010001	S00010050
GEORGIA	GA	S00011001	S00011050
GUAM	GU	S00012001	S00012050
HAWAII	HI	S00013001	S00013050
IDAHO	ID	S00014001	S00014050
ILLINOIS	IL	S00015001	S00015050
INDIANA	IN	S00016001	S00016050
IOWA	IA	S00017001	S00017050
KANSAS	KS	S00018001	S00018050
KENTUCKY	KY	S00019001	S00019050
LOUISIANA	LA	S00020001	S00020050
MAINE	ME	S00021001	S00021050
MARYLAND	MD	S00022001	S00022050
MASSACHUSETTS	MA	S00023001	S00023050
MICHIGAN	MI	S00024001	S00024050
MINNESOTA	MN	S00025001	S00025050
MISSISSIPPI	MS	S00026001	S00026050
MISSOURI	MO	S00027001	S00027050
MONTANA	MT	S00028001	S00028050
NEBRASKA	NE	S00029001	S00029050
NEVADA	NV	S00030001	S00030050
NEW HAMPSHIRE	NH	S00031001	S00031050
NEW JERSEY	NJ	S00032001	S00032050
NEW MEXICO	NM	S00033001	S00033050
NEW YORK	NY	S00034001	S00034050
NORTH CAROLINA	NC	S00035001	S00035050
NORTH DAKOTA	ND	S00036001	S00036050
OHIO	OH	S00037001	S00037050
OKLAHOMA	OK	S00038001	S00038050
OREGON	OR	S00039001	S00039050

<u>Not Used</u>		S00040001	S00040050
PENNSYLVANIA	PA	S00041001	S00041050
RHODE ISLAND	RI	S00042001	S00042050
SOUTH CAROLINA	SC	S00043001	S00043050
SOUTH DAKOTA	SD	S00044001	S00044050
TENNESSEE	TN	S00045001	S00045050
TEXAS	TX	S00046001	S00046050
UTAH	UT	S00047001	S00047050
VERMONT	VT	S00048001	S00048050
VIRGINIA	VA	S00049001	S00049050
WASHINGTON	WA	S00050001	S00050050
WEST VIRGINIA	WV	S00051001	S00051050
WISCONSIN	WI	S00052001	S00052050
WYOMING	WY	S00053001	S00053050
PUERTO RICO	PR	S00054001	S00054050

I. Responsibilities of Testing Central, States, CSP and CAS providers.

Testing Central Responsibilities

1. TC reports to the Executive Director of SST and provides the following:
 - a. Communication regarding changes to CSP and CAS systems and certification testing by member states.
 - b. Historical data concerning system changes, testing dates, and dates changes were migrated into production for auditors and state administrators.
 - c. Communication between the CSP, CAS providers, FTA E-Standards, and member states to ensure system and format changes are implemented in a timely manner.
 - d. Monitoring of any necessary State or CSP system changes and testing of systems.
2. Maintain contact lists of providers and member states.
3. Review state’s rates and boundaries databases for formatting errors.
4. Monitor and assist communication between states and providers.
5. Maintain up to date information on the certification and testing status of CSP and CAS candidates.
6. Provide system for tracking submitted, completed, and approved change requests (Forms TC0001 and TC0005).
7. Notify CSPs and CAS providers’ and potential providers of member state change requests submitted on Form TC0001, Changes made on Taxability Matrixes on Form F0020, and email notices of rate and boundary updates.
8. Notify states of CSP and CAS provider changes submitted on Form TC0005. These changes may need regression testing.
9. Monitor testing time period for member states.
10. Notify appropriate parties of system change status (approved TC0005 or TC0001) (i.e., ready for testing, failed testing, production moves).
11. Provide reports upon request of outstanding and completed system changes.

12. Maintain all change data (TC0005,TC0001, F0020, and emails for rate and boundary changes).
13. Ensure current testing documents are available for new states and vendors.

State Responsibilities:

1. Specific to reviewing a CSP or CAS candidate, test all functions used in calculating and preparing returns and the processing of returns prior to certification. This includes tax rules, boundary and rates, and SER completion and processing.
2. Prepare, maintain, and submit test decks as listed in Section E., Test Transactions (Test Decks).
 - a. Provide a quarterly test deck to TC no later than the 20th day of the month, two months before the beginning of a quarter (i.e. test deck is due no later than May 20 for the 3rd quarter which begins July 1). Test deck should be provided regardless of whether there are any changes.
3. Use the online test system to test functionality and accuracy through the submission and retrieval of that state's test deck transactions.
4. Review test deck output results. If no errors are found, send email to TC and CSP or CAS to communicate no errors were found. Enter the following in the email subject line: CSPName SS YYYYQQ TD No Errors "CSPABC MN 2023Q4 TD No Errors".
5. Submit all requested changes for errors found in the test deck results to TC using Form TC0001.
6. The State submits F0020 (change form) to SST staff when the state makes changes to the Taxability Matrix: Library of Definitions. That form is sent as notice of the change to the CSPs and CAS providers. States can test for these changes beginning the 11th day after the CSP or CAS is noticed of the change. Testing changes to the Tax Matrix: Library of Definitions as revised by SST each year, to be completed by each state by August 1 of that year will begin with the fourth quarter testing. Revisions made by SST to the Matrix at other times should be added to the test decks beginning the quarter after the states are required to complete the Matrix updates.
7. The State notifies TC by email of rate and boundary database updates, other than the quarterly updates, which includes a brief description of the reason for the update.
8. Submit all other changes in tax application or filing or reporting requirements of sellers to all CSPs and CAS providers when the change is made using Form TC0001. This includes changes made by law, regulations, administrative rules, policy or rulings. The CSP or CAS provider will review and make necessary changes to their tax rules, then send those changes to the state for approval. When changes are approved, the state needs to complete and return TC0001 to TC and copy the CSP/CAS.
9. Test changes in CSP or CAS online test system made pursuant to a TC0001 or TC0005 after the CSP or CAS provider has notified the state the changes have been made and prior to the date of implementation if possible. Complete form TC0001 or TC0005 when the state has approved the changes and return completed form to TC.
10. The state should maintain copies of all TC0001 and TC0005 forms as

documentation of Tax Rules and Changes that have been certified.

11. Communicate all actions that will change the status of a change request (i.e., testing failure, pass/fail of change, production date etc.).
12. Maintain and provide TC a current list of names and contact information of individuals authorized to submit change requests, approve test results and receive communications from TC on status changes.

CSP, CAS provider, and CSP or CAS Candidate Responsibilities:

1. Maintain an online test system for submitting, processing and providing output files for test deck results and for single transaction testing (section D).
2. Submit all changes to the CSP or CAS system including tax rule changes (including retired rules and date rules are retired) and changes to systems in the calculation and processing of the return to TC using Form TC0005.
3. The CSP or CAS provider will send a complete list of tax rules to states to review within thirty (30) days of the end of a contract term with the SSTGB unless provided during the current year as requested by the state or Core Audit Team. This rules list will include the CSP/CAS SKU or Reference Number, a detailed product description, the CSPs determination as either Taxable or Exempt and the date the rule was added. This list will also include rules that are no longer used, including the end date of those rules. A citation supporting the taxability determination should also be provided for any tax rules not previously certified.
4. Accept only state requested system changes submitted through TC on the approved form TC0001.
5. Make updates to exemptions, jurisdictions, rates, and tax rules submitted by states through TC on Form TC0001 and updates to tax rules for Reference Numbers submitted by TC.
6. Communicate with TC any actions that will change the status of a change request (e.g., testing failure, pass/fail of change, production date, etc.).
7. Complete changes submitted on TC0001 within the agreed upon number of days prior to the implementation date of the changes.
8. Complete and return TC0001 to TC when state requested changes are completed.
9. Have provider resources readily available during testing to facilitate understanding and testing of the application and to resolve, correct, retest, and restore corrected application components into the test environment.
10. Produce the reports required by the Governing Board and Appendix F.
11. Maintain and provide to TC a current list of individuals authorized to submit change requests, report on status changes, and provide assistance for answering questions.