



AvaTax for Communications Configuration Guide

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Document Revision History

The Revision History log lists the date and description of the most recent revisions or versions of the document.

Date	Version	Description
03/02/2016	0004	Avalara branding updates to reflect the transition to the new company and product names have been incorporated into this document. Please see Appendix A – Avalara Product Names for specific changes in product references and descriptions.
06/24/2016	0005	Added new Section 1.12 Reconciliation Report Option .
12/22/2016	0006	Added new configuration options in Section 1.1 Bundle No Tax and Section 1.17 Safe Harbor TAM Overrides .
02/24/2017	0007	References to 'reverse' tax calculations in the AFC engine have been updated and renamed to reflect the current naming convention which is 'tax inclusive' calculations in Section 1 EZTax.cfg File and Section 1.16 Tax Inclusive (Reverse) Calculations .

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1. EZTax.cfg File

EZTax.cfg is an optional configuration file used to modify the operation of the AvaTax for Communications (AFC) Engine.

Please reference the guidelines below for locating and updating the configuration file.

- **AFC License Clients** – The AFC system searches in the current directory for the eztax.cfg file if the file_path structure is not used. If it is used, the system searches in the STATUS file location and if it is not there, it will search in the EZTAXDLL location. If the file does not exist in either location, it will create it in the EZTAXDLL location.

Also, please be aware that processing of configuration files will result in failure if spaces or tabs are present in any of the following conditions:

- The start of a line.
 - The end of a line.
 - Between the configuration parameter and the equal sign.
 - Between the equal sign and the configuration value.
- **AFC SaaS Standard and AFC SaaS Pro** – Please contact communicationsupport@avalara.com for assistance with updating configuration files.

The following options are available to modify AFC operation.

Configuration Options	Settings	Comments
Bundle No Tax	bundlenotax=true bundlenotax=false	
Bundling	bundling=off (default) bundling=on bundlefile=[Path Location]	Ref AFC Bundler. Applies only to AFC Telecom. Does not apply to AFC Sales and Use.
Date Validation	datevalidation=on (default) datevalidation=off	
Exclusion Option	exclusion=off (default) exclusion=on exclusionfile=[Exclusion File Path]	
Log Length	loglength=short (default) loglength=long	
Log Message Level	messagelevel=info (default) messagelevel=warning messagelevel=error	
Log No Tax Transactions	lognotaxtrans=off (default) lognotaxtrans=on	
Log Option	logoption=nocache logoption=cache (default)	
Log Transaction / Service Types	logtransserv=true logtransserv=false (default)	Puts t/s pair in log.
Nexus option	nexus=off (default) nexus=on	

Configuration Options	Settings	Comments
	nexusfile=[Nexus File Path]	
Override Error Handling	overrideerrorhandling=abort (default) overrideerrorhandling=report	
Override Format	overrideformat=new (default) overrideformat=old	
Reconciliation Report Option	reconcilerpt=on reconcilerpt=off (default) reconcilerep=byddl	byddl adds the bundle package and bundle id to the report.
Report Level	reportlvl=local (city) reportlvl=default	Reporting level will be forced to local (unless override in place). Default - use logic record to determine what level to report at
Return Non-Billable	returnnonbillable=true returnnonbillable=false (default)	
Tax Inclusive (Reverse) Calc Session	reversecalcsession=off (default) reversecalcsession=on	
Safe Harbor TAM Overrides	safeHarborCellularTAMoverride originalTAM=x, overrideTAM=y safeHarborVoIPtamOverride originalTAM=x, overrideTAM=y safeHarborPagingTAMoverride originalTAM=x, overrideTAM=y	TAM Safe Harbor (original) values Cellular: 0.371 VoIP: 0.649 Paging: 0.12
Self-Taxing Rule	selftax=aggregate selftax=individual (default)	Aggregate sums up all self-tax rates for use in determining tax.
Status Log	statuslog=keep statuslog=clear (default)	
Tax Grouping Options	groupresults=default (default) groupsamelevel groupstate_groupcountyandlocal groupstatecountyandlocal groupsales groupsalescategory	
Tax on Tax	taxontax=once taxontax=iterate (default) taxontax=taxablemeasure	
Taxing Authority Report/ Trans-serv Report Option	transservrpt=on (default) transservrpt=off transservrpt=byddl	byddl adds the bundle package and bundle id to the report.
Transaction / Service Type Pair Validation	transservval=off (default) transservval=on	
Transaction Count Report	licenserpt=off (default) licenserpt=detailed licenserpt=summary	Detailed report adds t/s pair breakdown to counts.
Transaction Dump	transactiondump=off (default) transactiondump=on	Normally only used for troubleshooting
Use Tax	usetax=transaction (default) usetax=shipto	Applies only to AFC Sales and Use. Does not apply to AFC Telecom.
Wholesale / Resale Exempt for Batch	setwholesaleexempted=false (default) setwholesaleexempted=true	Applies only Telecom users with eztax_20 processing of CDF files.

Configuration Options	Settings	Comments
		Records wholesale exempt transactions in compliance file.

1.1 Bundle No Tax

bundlenotax=true

bundlenotax=false (default)

By default, bundled items that have 0 taxes are not returned in the tax data. With bundlenotax=true, the v914 custom log returned will include bundled items that generated 0 taxes. This allows clients to determine the sale amount (% allocated for bundle) that did not generate taxes as well as the t/s pair associated with the no tax processing.

NOTE: Setting the value to true impacts AFC SaaS Pro clients, AFC SaaS Standard clients and On-Premise clients using the v914 log.

1.2 Bundling

bundling=off (default)

bundling=on

bundlefile=[Path Location]

“bundling=on” must be present for AFC to activate and perform bundling. If it does not exist, bundling will not occur.

The Bundling feature allows the user to define multiple AFC transaction/service type pairs as one unique “bundle” transaction/service pair type. AFC processes all of the transaction/service type pairs in the bundle and stores the results in the file EZTax.bdl, the formatted text bundle definition file. This file may be created and edited by AFC Bundler, an optional utility program.

If Bundling has been activated, AFC uses the default file, EZTax.bdl, in the directory where the database is located. The “bundlefile” option allows for a different file location to be defined. The full path must be specified.

NOTE: This file must be in the same location as the EZTax.dat database file in order for AFC to find and load the bundle information, unless the bundlefile option is used.

Also, this configuration option only applies to AFC Telecom. It does not apply to AFC Sales and Use.

1.3 Date Validation

datevalidation=on (default)

datevalidation=off

The Date Validation option is used to perform date validation checking of transaction dates and override dates within the transaction data record. The default setting of “on” allows the validation checking to occur. “off” will disable the Validate Checking feature.

- Transaction dates are checked to be within the range of 19960000 thru 20370000.
- Override dates are checked to be within the range of 19000000 thru 20370000.
- The dates are formatted CCYYMMDD.

1.4 Exclusion Option

exclusion=off (default)

exclusion=on

exclusionfile=[Exclusion File Path]

The exclusion=on option must be inserted into the configuration file if an exclusion file is being used in order to set exclusions for specific states. Using the exclusion=off option, will indicate that an exclusion file is not being specified, and by default, AFC will determine that there are no exclusions in any state.

The Exclusion file option must be inserted into the AFC configuration file when the exclusion=on option is used. An exclusion file is a text file containing a list of states that have exclusions. The two-letter abbreviation for each state must be entered in a separate line. Optionally, the country ISO code could be specified prior to the state abbreviation and followed by a comma. Below is an example of an exclusion file:

```
CA
IL
USA,NY
```

Upon reading this sample file, AFC will determine that there are exclusions for the state of California, Illinois, and New York.

A 3-character country ISO can also be placed alone on a line. This will cause all taxes in that country to be exempted. Exclusions are intended to exclude taxes for a jurisdiction. For instance, this exclusion file:

```
USA
CAN,PQ
```

is interpreted as “we don’t do business in the USA and we also don’t do business in the province of Quebec”. In these jurisdictions, no taxes at all would be applied. If you want to block taxes at some level for a jurisdiction, you would use an override file.

NOTE: Only the three-character ISO country code may be used here. Two-character codes, which may be used elsewhere, are not valid here.

1.5 Log Length

loglength=short (default)
loglength=long

This option is used to specify whether AFC will write the standard (short) log or the extended (long) log, the only difference being that the extended log contains an additional nine optional fields. The additional fields provide a twenty character length string field and eight integer fields. These fields are part of the client transaction data and are provided to enhance the sorting and reporting capabilities based on client supplied information. These fields do not affect tax calculations and are placed into the AFC log. The default is the standard log.

1.6 Log Message Level

messagelevel=info (default)
messagelevel=warning
messagelevel=error

The message level impacts what messages are sent to the status file.

Level	Description
info	Includes informational only messages as well as warnings and error messages.
warning	Excludes info level messages. Shows warnings and errors.
error	Only outputs error messages.

1.7 Log No Tax Transactions

lognotaxtrans=off (default)
lognotaxtrans=on

This option is used to allow writing zero tax amount transactions to the log file.

1.8 Log Option

logoption=nocache
logoption=cache (default)

AFC caches returning taxes into log file data and writes the cache to disk when the cache is full. Placing “logoption=nocache” in the EZTax.cfg file will stop caching the log file data in memory and write the log file to disk after processing each transaction.

NOTE: *Setting the LOGOPTION to NOCACHE increases the size of the log because consecutive records that are identical except for amounts are not combined, degenerating the speed of the system. It will, however, eliminate the possibility of losing tax data stored in the cache should processing end abnormally. This option is not recommended unless there is a valid reason to use it.*

1.9 Log Transaction/Service Types

logtransserv=true

logtransserv=false (default)

The Log Transaction Services Types option will decrease the size of the log and increase the processing speed when set to false. This option can be of benefit when the transaction and service type information is not needed in the log output.

NOTE: *This value is set to 'true' by default and results in the transaction type and service type being written to the log. When set to 'false,' zeros will be written in place of the transaction and service types.*

1.10 Nexus Option

nexus=off (default)

nexus=on

nexusfile=[Nexus File Path]

The nexus=on option must be inserted into the configuration file if a nexus file is being used in order to set nexus for specific states. Using the nexus=off option will indicate that a nexus file is not being specified, and by default, AFC will determine that nexus exists in every state.

The ‘nexusfile’ option must be inserted into the AFC configuration file when the nexus=on option is used. A nexus file is a comma-delimited text file that indicates which states have nexus or not. Below is an example of the contents of a nexus file:

CA
NY
IL
TX

The value in each line is the two-letter abbreviation for the state. In the example above, upon reading this nexus file, AFC will determine that nexus exists in the states of California, New York, Illinois, and Texas, and in no other states.

1.11 Override Error Handling

overrideerrorhandling=abort (default)
overrideerrorhandling=report

The Override Error Handling option allows the system to ABORT if an error is detected when inserting overrides. When this option is set to REPORT, the system does not abort and sends a report message to the status file.

1.12 Override Format

overrideformat=new (default)
overrideformat=old

The Override Format option alerts the system to expect override files in version 8 or version 9 formats. If using a tab delimited override file created using the Override Utility from version 8, it is necessary to change this option to OLD.

1.13 Reconciliation Report Option

The reconciliation report option provides a tax inclusive calculation or tax inclusive report which shows the base charges plus any additional taxes calculated. If this configuration option is ON (reconcilerpt=on), the produced report will have the same name as the log, except the extension is "rtr". If this configuration option is OFF (reconcilerpt=off), the report is not produced. This configuration option will be set to OFF by default. The bybdl option (reconcilerpt=bybdl) is a special flag which adds the bundle package and id to the report within two additional columns.

The report is divided into three sections: Federal Level, Unknowns and State Level.

The Federal Level section contains a summary of all taxes for a given country listed by the ISO for that country. The list is sorted in the following order: USA, CAN, all other nations alphabetically sorted by the ISO identifier for that nation.

NOTE: *USA Federal includes federal taxes for all USA territories (American Samoa, Federated States of Micronesia, Guam, Marshall Islands, Northern Mariana Islands, Palau, Puerto Rico, or US Virgin Islands). This includes transactions where the taxing authority is the US Federal jurisdiction.*

The Unknowns are transactions in which the jurisdiction for taxation reporting purposes could not be determined.

The State Level section contains taxes at the state level (includes provinces and territories) and is restricted to USA states and territories and Canadian provinces and territories. The list is sorted alphabetically first by all USA states and territories, followed by all Canadian provinces and territories.

There will be one line for each transaction/service type pair used in these jurisdictions, with all the jurisdictions reported together (the only sorting in this section is by t/s pair, not by jurisdiction). Each line appears in the following format:

Standard reports

Jurisdiction, Trans, Svc, Charge, CalcCharge

Bundled reports

Jurisdiction, BundlePkg, BundleId, Trans, Svc, Charge, CalcCharge

For Federal Level reporting, the jurisdiction will be the Federal ISO code.

Examples: **USA** (United States), **CAN** (Canada), **FRA** (France), **GBR** (Great Britain)

Unknown jurisdictions will use the value **Unknown** for the jurisdiction.

For State Level reporting, the jurisdiction will be the 2-digit official State, Province or Territory code.

Examples: **NY** (New York), **MB** (Manitoba), **AS** (American Samoa)

Abbreviations

For the USA, official USPS abbreviations can be found at <https://www.usps.com/send/official-abbreviations.htm>.

Please refer to the following table for all other abbreviations excluding the USA:

Province or Territory – English	Abbreviation	Province or Territory - French
Alberta	AB	Alberta
British Columbia	BC	Colombie-Britannique
Manitoba	MB	Manitoba
New Brunswick	NB	Nouveau-Brunswick
Newfoundland and Labrador	NL	Terre-Neuve-et-Labrador
Northwest Territories	NT	Territoires du Nord-Ouest
Nova Scotia	NS	Nouvelle-Écosse
Nunavut	NU	Nunavut
Ontario	ON	Ontario
Prince Edward Island	PE	Île-du-Prince-Édouard
Québec	QC	Québec
Saskatchewan	SK	Saskatchewan
Yukon	YT	Yukon

Any transactions where the taxing jurisdiction is the US Federal jurisdiction will not be reflected in this section, so each t/s pair's total in this section may not equal that pair's total in the first section.

1.14 Report Level

reportlvl=local (city)
reportlvl=default

When set to the [reportlvl=local] configuration option, the difference in the returned tax data values is that the **pcode** returned is the local pcode for non-federal taxes. This pcode can be used to retrieve the associated jurisdiction information.

1.15 Return Non-Billable

returnnonbillable=true
returnnonbillable=false (default)

Non-billable items are compliance only taxes or fees that are used for filing and are not passed on to the user. This option allows you to specify whether non-billable items should be included in the tax table returned by the tax calculation API functions in AFC or not. This option does not affect the AFC log. Non-billable items will always be logged for compliance purposes.

1.16 Tax Inclusive (Reverse) Calculations

reversecalcsession=off (default)
reversecalcsession=on

By setting the value to 'off', this flag allows customers who do not use tax inclusive calculations to avoid the overhead in time and memory for initialization of the tax inclusive calculation support modules.

To initialize support for tax inclusive calculations at startup, the flag should be set to "on". If the flag is "off", the initialization will not occur unless a tax inclusive calculation request is received and will only occur on the first such request received. The primary difference between the "off" and "on" settings for customers that use tax inclusive calculations is when the cost of the tax inclusive calculation initialization is incurred.

1.17 Safe Harbor TAM Overrides

safeHarborCellularTAMoverride originalTAM=x, overrideTAM=y

safeHarborVoIPtamOverride originalTAM=x, overrideTAM=y

safeHarborPagingTAMoverride originalTAM=x, overrideTAM=y

Safe Harbor TAM Override configuration settings allow traffic study values to be applied for a given session or account.

The results of percentages from a traffic study can be applied by administering traffic study TAM overrides. The TAM values for Cellular, VoIP and Paging are adjusted to reflect the percentages in the traffic study.

Please contact communicationsupport@avalara.com in order to set the override at the account level versus transaction level.

1. Cellular Examples:

Original Cellular Safe Harbor: 37.1% Federal / 62.9% State											
State	City	Zip	Charge	Products	Tax Type	Level	Rate	TM	Tax	Charge	Exempt
NY	Manhattan	10001	100	Cellular/Access Charge	Fed USF Cellular	Federal	0.174	37.1	6.4554	100	62.9

Cellular Traffic Study Override: 15.0% Federal / 85.0% State											
State	City	Zip	Charge	Products	Tax Type	Level	Rate	TM	Tax	Charge	Exempt
NY	Manhattan	10001	100	Cellular/Access Charge	Fed USF Cellular	Federal	0.174	15	2.61	100	85

2. VoIP Examples:

Original VoIP Safe Harbor: 64.9% Federal / 35.1% State										
State	Zip	Charge	Products	Tax Type	Level	Rate	TM	Tax	Charge	Exempt
CA	90001	100	VoIP/Access Charge	Universal Lifeline Telephone Service Charge (VoIP)	State	0.055	35.1	1.9305	100	64.9
CA	90001	100	VoIP/Access Charge	CASF (VoIP)	State	0.00464	35.1	0.16286	100	64.9
CA	90001	100	VoIP/Access Charge	CA Teleconnect Fund (VoIP)	State	0.0108	35.1	0.37908	100	64.9
CA	90001	100	VoIP/Access Charge	CA High Cost Fund A (VoIP)	State	0.0035	35.1	0.12285	100	64.9
CA	90001	100	VoIP/Access Charge	TRS (VoIP)	State	0.005	35.1	0.1755	100	64.9
CA	90001	100	VoIP/Access Charge	E911 (VoIP)	State	0.0075	35.1	0.26325	100	64.9
CA	90001	100	VoIP/Access Charge	FUSF (VoIP)	Federal	0.174	64.9	11.2926	100	35.1
CA	90001	100	VoIP/Access Charge	FCC Regulatory Fee (VoIP)	Federal	0.00371	64.9	0.24078	100	35.1

VoIP Traffic Study Override: 25.0% Federal / 75.0% State										
State	Zip	Charge	Products	Tax Type	Level	Rate	TM	Tax	Charge	Exempt
CA	90001	100	VoIP/Access Charge	Universal Lifeline Telephone Service Charge (VoIP)	State	0.055	75	4.125	100	25

VoIP Traffic Study Override: 25.0% Federal / 75.0% State										
State	Zip	Charge	Products	Tax Type	Level	Rate	TM	Tax	Charge	Exempt
CA	90001	100	VoIP/Access Charge	CASF (VoIP)	State	0.00464	75	0.348	100	25
CA	90001	100	VoIP/Access Charge	CA Teleconnect Fund (VoIP)	State	0.0108	75	0.81	100	25
CA	90001	100	VoIP/Access Charge	CA High Cost Fund A (VoIP)	State	0.0035	75	0.2625	100	25
CA	90001	100	VoIP/Access Charge	TRS (VoIP)	State	0.005	75	0.375	100	25
CA	90001	100	VoIP/Access Charge	E911 (VoIP)	State	0.0075	75	0.5625	100	25
CA	90001	100	VoIP/Access Charge	FUSF (VoIP)	Federal	0.174	25	4.35	100	75
CA	90001	100	VoIP/Access Charge	FCC Regulatory Fee (VoIP)	Federal	0.00371	25	0.09275	100	75

1.18 Self-Taxing Rule

selftax=aggregate

selftax=individual (default)

Self-taxing configuration option allows the client to determine whether taxes that are classified as self-taxing should be calculated individually or in aggregate. The aggregate option summarizes the rates for all self-taxing taxes for a transaction, and uses that for determining the tax liability. The individual option determines the tax liability individually for each tax. The main difference in the result is that the taxable measure for the aggregate option will match for all self-taxing taxes, and the total tax liability will be slightly higher.

The following is an example using VoIP-Nomadic/International Usage (59/51) transaction for \$100.00 in Honolulu, Hawaii.

Configuration setting selftax=individual

PCode	Tax Type	Tax Type ID	Level	Rate	Tax Amount	Taxable Measure	Calculation Type
0	FCC Regulatory Fee (VoIP)	226	Federal	0.00331	0.331	100.00	Rate
0	FUSF (VoIP)	162	Federal	0.182	18.20	100.00	Rate
0	Telecommunications Relay Surcharge (Vol...	235	Federal	0.01635	1.635	100.00	Rate
749100	Telecommunications Sales Tax	138	State	0.04	4.907907	122.697667	SelfTaxingRate
749100	Telecommunications Sales Tax	138	County	0.005	0.595168	119.033513	SelfTaxingRate

Configuration setting selftax=aggregate

PCode	Tax Type	Tax Type ID	Level	Rate	Tax Amount	Taxable Measure	Calculation Type
0	FCC Regulatory Fee (VoIP)	226	Federal	0.00331	0.331	100.00	Rate
0	FUSF (VoIP)	162	Federal	0.182	18.20	100.00	Rate
0	Telecommunications Relay Surcharge (VoIP)	235	Federal	0.01635	1.635	100.00	Rate
749100	Telecommunications Sales Tax	138	State	0.04	4.929722	123.243042	SelfTaxingRate
749100	Telecommunications Sales Tax	138	County	0.005	0.616215	123.243042	SelfTaxingRate

1.19 Status Log

statuslog=keep
statuslog=clear (default)

The Status Log option is used to allow for appending new session data to the existing EZTax.sta file. The default setting of “keep” allows for appending the new session data. When set to “clear,” will delete an existing EZTax.sta file and create a new EZTax.sta for the session.

1.20 Tax Grouping Options

The following options determine how tax calculation results are returned after calling one of the tax calculation API functions. By changing this option in the configuration file, the taxes returned by the tax calculation API function may be grouped according to this setting.

NOTE: *This option will not modify the way that tax calculation results are logged into the AFC log file. Only the tax calculation results returned by either one of the tax calculation API will be group according to the values set for this option.*

General Rules

The following rules apply when using any value for this option:

1. Federal taxes may not be grouped. Each Federal tax will be returned individually.
2. Non-billable taxes may not be grouped.
3. Only rate-based taxes may be grouped. Taxes with a different calculation type (for example, fixed, per line, etc) will be returned individually.
4. Use taxes may be grouped with other use taxes only (for example, state and local use tax). Use taxes will not be grouped with other tax types.
5. When grouping taxes for different tax levels (for example, state and local taxes) the jurisdiction code for the lowest level jurisdiction will be returned.
6. Unincorporated taxes will be considered as County taxes when grouping taxes by tax level, and will be grouped accordingly.
7. The tax rates for all taxes being grouped into a single record will be added together.

Default Option:

- **groupresults=default (default)**

The default option indicates that the taxes returned in the tax table after processing a transaction with AFC will not be grouped. Each tax will be returned in an individual tax record.

Tax Level Options:

- **groupsamelevel**

This option will cause rate-based taxes at the same level to be grouped together. For example, if AFC returns a Local Sales Tax and a Local District Tax, these taxes will be grouped together since they have the same tax level (Local).

- **groupstate_groupcountyandlocal**
This option will cause all state taxes to be grouped together into a single record, and all county and local taxes to be grouped together into a separate record.
- **groupstatecountyandlocal**
This option will cause all state, county, and local taxes to be grouped together into a single record.

Sales Tax Options:

The following options may be used in combination with any of the tax level options specified above. These options may be used to group sales taxes separately from other taxes. This option must be appended to the EZTax.cfg file following the line for the tax level group option.

- **groupsales**
This option will group Sales Taxes (tax type 1) and Use Taxes (tax type 49) taxes into a separate record according to the tax level option being specified.
- **groupsalescategory**
When using this option, AFC will group any items that are considered Sales Taxes together. In addition to the Sales Tax (tax type 1) and Use Tax (tax type 49), some District and Transit taxes are also in the sales tax category.

Examples

- **groupstatecountylocal**
By entering the configuration option shown above into the EZTax.cfg file, all State, County, and Local taxes will be grouped together into a single record.
- **groupstatecountylocal**
- **groupsalescategory**

By entering these two options in the configuration file, all State, County, and Local sales category taxes will be grouped together into a single record. Any other State, County and Local taxes (if any) will be grouped into a separate record.

Tax Return Table

When grouping taxes together, the fields in the tax return table will contain the following values:

1. Jurisdiction Code. Jurisdiction Code (PCode or JCode depending on the API call and interface being used) for the lowest level jurisdiction. For example, if Kansas state taxes and Overland Park local taxes were grouped together, the tax record will contain the jurisdiction code for Overland Park.
2. Tax level. When grouping State, County and Local taxes together, the tax record will contain a value of 6 in the tax level. When grouping only County and Local taxes together, the tax record will contain a value of 7 in the tax record. Constants are provided for these values in the appropriate file.

3. Tax type. When grouping different taxes together, the tax type in the tax record will contain a value of 0. If only Sales Taxes (tax type 1) or Use Taxes (tax type 49) are being grouped together, the tax record will contain the corresponding tax type.
4. Tax amount. This field will contain the sum of the tax amount for all taxes being grouped together.
5. Tax rate. This field will contain the sum of the tax rates for all taxes being grouped together.

NOTE: *The remaining fields in the tax table will not contain any meaningful value. Grouping tax calculation results may serve as a way to simplify the tax information for display purposes only. If further detail is required for each tax being returned by AFC, this feature should not be used.*

1.21 Tax on Tax

taxontax=once
taxontax=iterate (default)
taxontax=taxablemeasure

The Tax On Tax option is used to allow for processing taxes when taxes are based on the tax amount of other taxes. AFC will repeatedly calculate the tax on the additional tax amount until either that tax amount (taxontax=iterate) or the taxable measure (taxontax=taxablemeasure) is less than one half of one cent (0.005).

NOTE: *Either 'taxontax=iterate' or 'taxontax=taxablemeasure' must be present to perform the tax on tax function. If it is set to 'taxontax=once', AFC will perform the calculation one time.*

1.22 Taxing Authority Report/Trans-Serv Report Option

transservrpt=on (default)
transservrpt=off
transservrpt=bybdl

The transservrpt option may be inserted into the configuration file if the user wants a transaction-service type report. The report is placed in the same directory as the log file. If this configuration option is ON (transservrpt=on), the produced report will have the same name as the log, except the extension is "tsr". If this configuration option is OFF (transservrpt=off), the report is not produced. This configuration option will be set to ON by default. The bybdl option (transservrpt=bybdl) is a special flag which adds the bundle package and id to the report within two additional columns.

The report is divided into three sections: Federal Level, Unknowns and State Level.

The Federal Level section contains a summary of all taxes for a given country listed by the ISO for that country. The list is sorted in the following order: USA, CAN, all other nations alphabetically sorted by the ISO identifier for that nation.

NOTE: USA Federal includes federal taxes for all USA territories (American Samoa, Federated States of Micronesia, Guam, Marshall Islands, Northern Mariana Islands, Palau, Puerto Rico, or US Virgin Islands). This includes transactions where the taxing authority is the US Federal jurisdiction.

The Unknowns are transactions in which the jurisdiction for taxation reporting purposes could not be determined.

The State Level section contains taxes at the state level (includes provinces and territories) and is restricted to USA states and territories and Canadian provinces and territories. The list is sorted alphabetically first by all USA states and territories, followed by all Canadian provinces and territories.

There will be one line for each transaction/service type pair used in these jurisdictions, with all the jurisdictions reported together (the only sorting in this section is by t/s pair, not by jurisdiction). Each line appears in the following format:

Standard reports

Jurisdiction, Trans, Svc, Charge

Bundled reports

Jurisdiction, BundlePkg, BundleId, Trans, Svc, Charge

For Federal Level reporting, the jurisdiction will be the Federal ISO code.

Examples: **USA** (United States), **CAN** (Canada), **FRA** (France), **GBR** (Great Britain)

Unknown jurisdictions will use the value **Unknown** for the jurisdiction.

For State Level reporting, the jurisdiction will be the 2-digit official State, Province or Territory code.

Examples: **NY** (New York), **MB** (Manitoba), **AS** (American Samoa)

Abbreviations

For the USA, official USPS abbreviations can be found at <https://www.usps.com/send/official-abbreviations.htm>.

Please refer to the following table for all other abbreviations excluding the USA:

Province or Territory – English	Abbreviation	Province or Territory - French
Alberta	AB	Alberta
British Columbia	BC	Colombie-Britannique
Manitoba	MB	Manitoba
New Brunswick	NB	Nouveau-Brunswick
Newfoundland and Labrador	NL	Terre-Neuve-et-Labrador
Northwest Territories	NT	Territoires du Nord-Ouest
Nova Scotia	NS	Nouvelle-Écosse
Nunavut	NU	Nunavut
Ontario	ON	Ontario
Prince Edward Island	PE	Île-du-Prince-Édouard
Québec	QC	Québec
Saskatchewan	SK	Saskatchewan

Province or Territory – English	Abbreviation	Province or Territory - French
Yukon	YT	Yukon

Any transactions where the taxing jurisdiction is the US Federal jurisdiction will not be reflected in this section, so each t/s pair's total in this section may not equal that pair's total in the first section.

NOTE: When using multiple AFC sessions, each session must give a unique name to the log and status files. In order for the trans-serv report files to be named uniquely for each session, the differentiation in log or status file names must be in the file name, not the extension. For example, naming the log files EZTax1.log, EZTax2.log, etc. is acceptable. Naming the log files EZTax.log1, EZTax.log2, etc., will NOT produce usable trans-serv file names.

1.23 Transaction/Service Type Pair Validation

transservval=off (default)

transservval=on

The Transaction Service Validation option is used to validate transaction/service type pairs within the transaction data record. To allow the validation checking to occur the setting must be set to "on." Otherwise the default setting of "off" will disable this feature.

1.24 Transaction Count Report

licenserpt=off (default)

licenserpt=detailed

licenserpt=summary

The license report / transaction count report provides a breakdown of all transactions processed. Similar to the tsr report, it will append new entries to the end of the file, and is written out when the session is closed. The file will be named the same as the log file with the extension license.rpt. If logging is disabled, the status file name will be used.

For example, if the log is EZTax.log, the report will be named EZTax.license.rpt.

Detailed Report Columns

Field	Description
Client	Blank by default. Will display licensed client when license validation is active.
Platform	Blank by default. Will display licensed platform when license validation is active.
Module	Module Description for Transaction Count
Market	Market Id for Transaction Count
Trans	Transaction Id for Transaction Count
Svc	Service Id for Transaction Count
Licenseld	0 by default. Will display license id when license validation is active.
Authorized	True by default. Will display false when license validation is active and module is not licensed for client.

Field	Description
Count	The number of transactions processed for Market/Trans/Svc.

Summary Report Columns

Field	Description
Client	Blank by default. Will display licensed client when license validation is active.
Platform	Blank by default. Will display licensed platform when license validation is active.
Module	Module Description for Transaction Count
Market	Market Id for Transaction Count
Licenseld	0 by default. Will display license id when license validation is active.
Authorized	True by default. Will display false when license validation is active and module is not licensed for client.
Count	The number of transactions processed for Market/Trans/Svc.

1.25 Transaction Dump

transactiondump=off (default)

transactiondump=on

With transaction dump turned on, all transactions are logged to a text file named EZTax.log.trn. This can become quite a large file and is normally only used for troubleshooting. For example, with this file AFC, Inc. can reproduce the identical input on our system to what was used on a client's system, thereby recreating the transaction(s) in question.

Default

Field	Description
Key	Unique key tying this record to the Special Exemptions Dump log
Billto_J_Code	Bill to jcode
orig_J_Code	Origination jcode
term_J_Code	Termination jcode
Billto_P_Code	Bill to pcode
orig_P_Code	Origination pcode
term_P_Code	Termination pcode
cust_mode	Iteration count for customer mode session
adj_flag	Adjustment flag from API (TRUE = is an adjustment)
adj_method	Adjustment method from API
discount	Adjustment discount type from API
tax_inclusive	Flag set when Tax Inclusive (Reverse Calculation) API call used
inc_base_sale	Base sale from API
debit_card	Debit card transaction flag
bundle_pkg	Bundle package number (trans)
bundle_id	Bundle package ID (svc)
customer_type	Customer Type (Business, Industrial, ...)
sale_type	Sale Type (Retail, Wholesale)
reg_status	Regulated Flag
trans_type	

Field	Description
Transaction Type ID	
srv_type	Service Type ID
business_class	Business Class (CLEC, ILEC)
service_class	Service Class (Local, Long Distance)
facilities	Facilities Flag
franchise	Franchise Flag
lifeline	Lifeline Flag
date	Transaction Date (YYYYMMDD)
charge	Charge Amount
minutes	Minutes
lines	Lines
locations	Locations
incorp	Incorporated Flag
fed_ex	FEDERAL exempt flag
state_ex	State exempt flag
county_ex	County exempt flag
local_ex	Local exempt flag
fed_ex_j_code	Federal exempt J code
state_ex_j_code	State exempt J code
county_ex_j_code	County exempt J code
local_ex_j_code	Local exempt J code
spc_ex_cnt	Special exemption counts
exempt_type	Exemption type
invoice_no	Invoice number
svc_level_no	Service level number
optional	Optional numeric field
cust_no	Customer number
company_id	Company identifier
opt_alpha	Optional text field
opt_4	Optional numeric field
opt_5	Optional numeric field
opt_6	Optional numeric field
opt_7	Optional numeric field
opt_8	Optional numeric field
opt_9	Optional numeric field
opt_10	Optional numeric field

Special Exemptions

Field	Description
key	Unique key tying this record to the Special Exemptions Dump log
tax_type	Tax type identifier
tax_type_desc	Tax type description
Tax_level	Tax level identifier
j_code	J Code
p_code	P Code

1.26 Use Tax

usetax=transaction (default)

usetax=shipto

The default [usetax=transaction] uses transaction data to determine if consumer use or vendor use is applicable. While [usetax=shipto] compares 'ship-to' to 'ship-from' to determine if sales tax or use tax applies.

NOTE: This configuration option only applies to AFC Sales and Use. It does not apply to AFC Telecom.

1.27 Wholesale/Resale Exempt for Batch

setwholesaleexempted=false (default)

setwholesaleexempted=true

The standard approach for having wholesale or resale exempt taxes preserved in the compliance files is to set the exemption type to 3 (Sales for Resale). However, the CDF format does not support setting the exemption type. Using this configuration option set to true forces batch (eztax_20) to handle wholesale / resale the same way and preserve the exempted taxes in the log for reports.

The tax amount does not change, the only change is that the exempted amount is preserved in the log and available for subsequent reporting.

NOTE: This configuration option only applies to AFC Telecom Users with eztax_20 configuration. It does not apply to AFC Sales and Use.

2. Deprecated Configuration Settings

There are certain flags in the configuration file that have been maintained for clients using an older version of CDF files for batch. They do not apply to version 9 API processing since the values are passed in with the other transaction data. The deprecated flags that API users can ignore are listed in the table provided below.

Deprecated Configuration Options	Settings	Comments
Franchise Flag	franchise=false (Default) franchise=true	Replaced by transaction setting trans.franchise
Facilities Flag	facilities=false (Default) facilities=true	Replaced by transaction setting trans.facilities_based
Business Class	businessclass=clec (Default) businessclass=ilec	Replaced by transaction setting trans.business_class
Service Class	serviceclass=longdistance (Default) serviceclass=local	Replaced by transaction setting trans.service_class

3. Appendix A – Avalara Product Names

Please note that endpoints and websites referencing EZtax or Billsoft will not be changed. These items, such as <http://support.eztax.com>, will remain as is unless otherwise specifically communicated.

3.1 Company Information

- EZtax, Inc./Billsoft, Inc. is now **Avalara, Inc.**

3.2 Product Families

- EZtax Engine and Tools are now **Avalara AvaTax for Communications (AFC)**
- EZgeo is now **Avalara Geo for Communications (AFC Geo)**

3.3 Product Name Changes

3.3.1 Avalara AvaTax for Communications

- EZtax SaaS is now **AFC SaaS Pro**
- EZtax Online/Batch is now **AFC SaaS Standard**

3.3.2 Avalara Geo for Communications

- EZgeo SaaS is now **AFC Geo SaaS Pro**
- EZgeo Online/Batch is now **AFC Geo SaaS Standard**