



AvaTax Billing

System Integration Guide

*Version 1.0
Release Date: 8/27/18
Product Release: AvaTax Billing 1.0*

Avalara may have patents, patent applications, trademarks, copyrights, or other intellectual property rights governing the subject matter in this document. Except as expressly provided in any written license agreement from Avalara, the furnishing of this document does not give you any license to these patents, trademarks, copyrights, or other intellectual property.

© 2017 Avalara, Inc. All rights reserved.

Avalara, AvaTax, AvaTax Calc, AvaTax Returns, AvaTax Certs, AvaTax Local, AvaLocal, AvaTax POS, AvaPOS, AvaRates, TrustFile, BPObridge, Laserbridge+, Sales TaxII, Sales TaxPC, SalestaxPC+, StatetaxII, and StatetaxPC are either registered trademarks or trademarks of Avalara, Inc. in the United States or other countries.

All other trademarks are property of their respective owners..



Table of Contents

- Connector Overview3
 - Configuration3
- Object Mapping4
 - Order Object4
 - Invoice Object8
 - Credit Note Object12
 - Debit Note Object16
- AvaTax Custom Fields20
- How to Extend AvaTax integration using AvaTax Mapper?21

Connector Overview

AvaTax for Salesforce Billing connector comprises the mention:

1. Address Validation on Account, Legal Entity.
2. Tax Calculation on Order, Invoice, Credit and Debit Note
3. Multi-Entity features via Legal Entity

The Connector is dependent on Salesforce Billing and AvaTax Mapper package.

Configuration

Integration point on Account Master

Integration page/file/component	Address Validation	Test Connection	Trigger
Account	Yes	No	NA
Legal Entity	Yes	No	NA
Tax Integration	No	Yes	AvalaraConfigurationUpdateTrigger
Contact	Yes	No	NA

List of integrations on transaction pages

Page	Entity/Use code	Manual Tax Calculation	Automatic Tax Calculation	Cancel Tax	Commit Tax
Order	Yes	No	Yes	No	No
Invoice	Yes	No	Yes	Yes	Yes
Credit Note	Yes	Yes	No	Yes	Yes
Debit Note	Yes	Yes	No	Yes	Yes

Object Mapping

Order Object

Salesforce object	Salesforce field (API Name)	AvaTax Field	Details	Comment
Account	<ul style="list-style-type: none"> Name Id 	CustomerCode	Required: Yes Data Type: String Example: 0011Y00002GPqw1	Connector configuration.
	Exemption_Number__c	Exemption No.	Required: No Data Type: String Example: 1234	NA
	Entity_Use_Code__c	Customer UsageType	Required: No Data Type: String Example: A	NA
-	System.Today()	docDate	Required: Yes Data Type: DateTime Example: 02/27/2018	NA
Order Product	orderProduct.blng__LegalEntity__c	CompanyCode	Required: Yes Data Type: String Example: default	<ul style="list-style-type: none"> Custom field on Order Product for company code. Company Code and Legal entity name should match (Case sensitive) Legal Entity Name represents AvaTax Company Code in Billing Connector.

Salesforce object	Salesforce field (API Name)	AvaTax Field	Details	Comment
Order	<ul style="list-style-type: none"> Order.Name Order.Id 	DocCode	Required: Yes Data Type: String Example: 123	<ul style="list-style-type: none"> Dropdown Under Connector Configuration Allows to choose whether to pass Order Name or Id as DocCode.
-	-	DetailLevel	Required: No Data Type: String Example: Tax	<ul style="list-style-type: none"> Set automatic through AvaTax as 'Tax.'
Legal Entity	blng__LegalEntity__c.blng__Street1__c blng__LegalEntity__r.blng__Street2__c	ShipFrom Address Street1 Street2	Required: Yes [Street2 is optional] Data Type: String Example: 900 winslow way e	<ul style="list-style-type: none"> Legal Entity address Fallback Organization address. [Origin Address]
	blng__LegalEntity__c.blng__City__c	ShipFrom Address City	Required: Yes Data Type: String Example: BI	<ul style="list-style-type: none"> Legal Entity address Fallback Organization address. [Origin Address]
	blng__LegalEntity__c.blng__State__c	ShipFrom Address State	Required: Yes Data Type: String Example: WA	<ul style="list-style-type: none"> Legal Entity address Fallback Organization address. [Origin Address]
	blng__LegalEntity__c.blng__Country__c	ShipFrom Address Country	Required: Yes Data Type: String Example: US	<ul style="list-style-type: none"> Legal Entity address Fallback Organization address. [Origin Address]
	<ul style="list-style-type: none"> blng__LegalEntity__c.blng__ZipPostalCode__c 	ShipFrom Address PostalCode	Required: Yes Data Type: String Example: 98110	<ul style="list-style-type: none"> Legal Entity address Fallback Organization address. [Origin Address]

Salesforce object	Salesforce field (API Name)	AvaTax Field	Details	Comment
Account, Order	<ul style="list-style-type: none"> Order: Account Billing Address Order: Account Shipping Address Order: Bill To Contact Order: Ship To Contact Billing Account: Billing Address Billing Account: Shipping Address Billing Account: Bill to Contact 	ShipTo Address	Required: Yes Data Type: String Example: 900 winlso w ay e	Billing Package Configuration.
Line Item				
Order Product	Quantity	Qty	Required: Yes Data Type: Decimal Example: 1	Order Product quantity
Product	<ul style="list-style-type: none"> Product.ProductCode Product.Name 	ItemCode	Required: No Data Type: String Example: ABC	Product code missing, Product Name is used as ItemCode

Salesforce object	Salesforce field (API Name)	AvaTax Field	Details	Comment
Order Product	Full-Term Net Unit Price	Amount	Required: Yes Data Type: Decimal Example: 100.00	Full-Term Net Unit Price Order Product line level
Product	Product.Description	Description	Required: No Data Type: String Example: Product Description	Product description Order Product line level
Order Product	Tax Street [Override] City [Override] State [Override] Zip [Override] Country [Override]	Origin Address	-	Order Line Level Address Fields for ShipFrom Address Override.
Tax Code				
Tax Treatment	blng__Tax_Code__c	TaxCode	Required: No Data Type: String Example: FR	Applied to Order Line Level
Exemption				
Account	Entity Use Code/Exemption		Required: No Data Type: String Example: FREIGHT / A	<ul style="list-style-type: none"> Custom Settings Tax_Exempt Custom field name to be provided in Tax_Exempt

Invoice Object

Salesforce object	Salesforce field (API Name)	AvaTax Field	Details	Comment
Account	<ul style="list-style-type: none"> Name Id 	CustomerCode	Required: Yes Data Type: String Example: 0011Y00002GPqw1	Connector configuration.
	Exemption_Number__c	Exemption No.	Required: No Data Type: String Example: 1234	NA
	Entity_Use_Code__c	CustomerUsageType	Required: No Data Type: String Example: A	NA
-	System.Today()	docDate	Required: Yes Data Type: DateTime Example: 02/27/2018	-
Invoice Product	invoicwProduct__blng__LegalEntity__c	CompanyCode	Required: Yes Data Type: String Example: default	<ul style="list-style-type: none"> Copied from Order at the time of Invoice Generation
Invoice	<ul style="list-style-type: none"> Invoice.Name Invoice.Id 	DocCode	Required: Yes Data Type: String Example: 123	<ul style="list-style-type: none"> Dropdown Under Connector Configuration Allows to choose whether to pass Order Name or Id as DocCode.

Salesforce object	Salesforce field (API Name)	AvaTax Field	Details	Comment
-	-	DetailLevel	Required: No Data Type: String Example: Tax	<ul style="list-style-type: none"> Set automatic through AvaTax as 'Tax.'
Legal Entity	blng__LegalEntity__c.blng__Street1__c	ShipFrom Address Street1	Required: Yes [Street2 is optional] Data Type: String Example: 900 winslow way e	<ul style="list-style-type: none"> Legal Entity address Fallback Organization address. [Origin Address]
	blng__LegalEntity__r.blng__Street2__c	Street2		
	blng__LegalEntity__c.blng__City__c	ShipFrom Address City	Required: Yes Data Type: String Example: BI	<ul style="list-style-type: none"> Legal Entity address Fallback Organization address. [Origin Address]
	blng__LegalEntity__c.blng__State__c	ShipFrom Address State	Required: Yes Data Type: String Example: WA	<ul style="list-style-type: none"> Legal Entity address Fallback Organization address. [Origin Address]
	blng__LegalEntity__c.blng__Country__c	ShipFrom Address Country	Required: Yes Data Type: String Example: US	<ul style="list-style-type: none"> Legal Entity address Fallback Organization address. [Origin Address]
blng__LegalEntity__c.blng__ZipPostalCode__c	ShipFrom Address PostalCode	Required: Yes Data Type: String Example: 98110	<ul style="list-style-type: none"> Legal Entity address Fallback Organization address. [Origin Address]	

Salesforce object	Salesforce field (API Name)	AvaTax Field	Details	Comment
Account, Order	<ul style="list-style-type: none"> Order: Account Billing Address Order: Account Shipping Address Order: Bill To Contact Order: Ship To Contact Billing Account: Billing Address Billing Account: Shipping Address Billing Account: Bill to Contact 	ShipTo Address	Required: Yes Data Type: String Example: 900 winsow way e	Billing Package Configuration.
Line Item				
Invoice Product	Quantity	Qty	Required: Yes Data Type: Decimal Example: 1	Invoice Product quantity
Product	<ul style="list-style-type: none"> Product.ProductCode Product.Name 	ItemCode	Required: No Data Type: String Example: ABC	Product code missing, Product Name is used as ItemCode
Invoice Product	invoiceLine.blng__Subtotal__c	Amount	Required: Yes Data Type: Decimal Example: 100.00	SubTotal Invoice Product line level

Salesforce object	Salesforce field (API Name)	AvaTax Field	Details	Comment
Product	Product.Description	Description	Required: No Data Type: String Example: Product Description	Product description Invoice Product line level
Tax Code				
Tax Treatment	blng__Tax_Code__c	TaxCode	Required: No Data Type: String Example: FR	Applied to Invoice Line Level
Exemption				
Account	-	Entity Use Code/Exemption	Required: No Data Type: String Example: FREIGHT / A	<ul style="list-style-type: none"> • Custom Settings Tax_Exempt • Custom field name to be provided in Tax_Exempt

Credit Note Object

Salesforce object	Salesforce field (API Name)	AvaTax Field	Details	Comment
Account	<ul style="list-style-type: none"> Name Id 	CustomerCode	Required: Yes Data Type: String Example: 0011Y00002GPqw1	Connector configuration.
	Exemption_Number__c	Exemption No.	Required: No Data Type: String Example: 1234	NA
	Entity_Use_Code__c	CustomerUsageType	Required: No Data Type: String Example: A	NA
-	System.Today()	docDate	Required: Yes Data Type: DateTime Example: 02/27/2018	
Credit Note Line	CreditNote.Billing__LegalEntity__c	CompanyCode	Required: Yes Data Type: String Example: default	<ul style="list-style-type: none"> Custom field on Credit Note Product for company code. Company Code and Legal entity name should match (Case sensitive). Legal Entity Name represents AvaTax Company Code in Billing Connector.

Salesforce object	Salesforce field (API Name)	AvaTax Field	Details	Comment
Credit Note	<ul style="list-style-type: none"> CreditNote.Name CreditNote.Id 	DocCode	Required: Yes Data Type: String Example: 123	<ul style="list-style-type: none"> Dropdown Under Connector Configuration. Allows to choose whether to pass Order Name or Id as DocCode.
-	-	DetailLevel	Required: No Data Type: String Example: Tax	Set automatic through AvaTax as 'Tax.'
Legal Entity	blng__LegalEntity__c.blng__Street1__c blng__LegalEntity__r.blng__Street2__c	ShipFrom Address Street1 Street2	Required: Yes [Street2 is optional] Data Type: String Example: 900 winslow way e	<ul style="list-style-type: none"> Legal Entity address Fallback Organization address. [Origin Address]
	blng__LegalEntity__c.blng__City__c	ShipFrom Address City	Required: Yes Data Type: String Example: BI	<ul style="list-style-type: none"> Legal Entity address Fallback Organization address. [Origin Address]
	blng__LegalEntity__c.blng__State__c	ShipFrom Address State	Required: Yes Data Type: String Example: WA	<ul style="list-style-type: none"> Legal Entity address Fallback Organization address. [Origin Address]

Salesforce object	Salesforce field (API Name)	AvaTax Field	Details	Comment
	blng__LegalEntity__c.blng__Country__c	ShipFrom Address Country	Required: Yes Data Type: String Example: US	<ul style="list-style-type: none"> • Legal Entity address • Fallback Organization address. [Origin Address]
	blng__LegalEntity__c.blng__ZipPostalCode__c	ShipFrom Address PostalCode	Required: Yes Data Type: String Example: 98110	<ul style="list-style-type: none"> • Legal Entity address • Fallback Organization address. [Origin Address]
Credit Note Line, Credit Note, Account	Credit Note Line : Tax Address Tax Street Tax City Tax State Tax Country Credit Note : Tax Address Tax Street Tax City Tax State Tax Country Account : Shipping Address	ShipTo Address	Required: Yes Data Type: String Example: 900 winsow way e	-
Line Item				
Credit Note Product	CreditNoteLine.quantity__c	Qty	Required: Yes Data Type: Decimal Example: 1	Credit Note Product quantity

Salesforce object	Salesforce field (API Name)	AvaTax Field	Details	Comment
Product	<ul style="list-style-type: none"> Product.ProductCode Product.Name 	ItemCode	Required: No Data Type: String Example: ABC	Product code missing, Product Name is used as ItemCode
Credit Note Product	CreditNoteLine.blng__Subtotal__c	Amount	Required: Yes Data Type: Decimal Example: 100.00	SubTotal Credit Note Product line level
Product	Product.Description	Description	Required: No Data Type: String Example: Product Description	Product description Credit Note Product line level
Tax Code				
Tax Treatment	blng__Tax_Code__c	TaxCode	Required: No Data Type: String Example: FR	Applied to Credit Note Line Level
Exemption				
Account	-	Entity Use Code/Exemption	Required: No Data Type: String Example: FREIGHT / A	<ul style="list-style-type: none"> Custom Settings Tax_Exempt Custom field name to be provided in Tax_Exempt

Debit Note Object

Salesforce object	Salesforce field (API Name)	AvaTax Field	Details	Comment
Account	<ul style="list-style-type: none"> Name Id 	CustomerCode	Required: Yes Data Type: String Example: 0011Y00002GPqw1	Connector configuration.
	Exemption_Number__c	Exemption No.	Required: No Data Type: String Example: 1234	NA
	Entity_Use_Code__c	CustomerUsageType	Required: No Data Type: String Example: A	NA
-	System.Today()	docDate	Required: Yes Data Type: DateTime Example: 02/27/2018	-
Debit Note Line	DebitNote.Billing__LegalEntity__c	CompanyCode	Required: Yes Data Type: String Example: default	<ul style="list-style-type: none"> Custom field on Debit Note Product for company code. Company Code and Legal entity name should match (Case sensitive) Legal Entity Name represents AvaTax Company Code in Billing Connector.

Salesforce object	Salesforce field (API Name)	AvaTax Field	Details	Comment
Debit Note	<ul style="list-style-type: none"> DebitNote.Name DebitNote.Id 	DocCode	Required: Yes Data Type: String Example: 123	<ul style="list-style-type: none"> Dropdown Under Connector Configuration Allows to choose whether to pass Order Name or Id as DocCode.
-	-	DetailLevel	Required: No Data Type: String Example: Tax	<ul style="list-style-type: none"> Set automatic through AvaTax as 'Tax.'
Legal Entity	blng__LegalEntity__c.blng__Street1__c blng__LegalEntity__r.blng__Street2__c	ShipFrom Address Street1 Street2	Required: Yes [Street2 is optional] Data Type: String Example: 900 winslow way e	<ul style="list-style-type: none"> Legal Entity address Fallback Organization address. [Origin Address]
	blng__LegalEntity__c.blng__City__c	ShipFrom Address City	Required: Yes Data Type: String Example: BI	<ul style="list-style-type: none"> Legal Entity address Fallback Organization address. [Origin Address]
	blng__LegalEntity__c.blng__State__c	ShipFrom Address State	Required: Yes Data Type: String Example: WA	<ul style="list-style-type: none"> Legal Entity address Fallback Organization address. [Origin Address]
	blng__LegalEntity__c.blng__Country__c	ShipFrom Address Country	Required: Yes Data Type: String Example: US	<ul style="list-style-type: none"> Legal Entity address Fallback Organization address. [Origin Address]

Salesforce object	Salesforce field (API Name)	AvaTax Field	Details	Comment
	blng__LegalEntity__c.blng__ZipPostalCode__c	ShipFrom Address PostalCode	Required: Yes Data Type: String Example: 98110	<ul style="list-style-type: none"> Legal Entity address Fallback Organization address. [Origin Address]
Debit Note Line	Debit Note Line : Tax Address Tax Street Tax City Tax State Tax Country Debit Note : Tax Address Tax Street Tax City Tax State Tax Country Account : Shipping Address	ShipTo Address	Required: Yes Data Type: String Example: 900 winsow way e	-
Line Item				
Debit Note Product	DebitNoteLine.quantity__c	Qty	Required: Yes Data Type: Decimal Example: 1	Debit Note Product quantity
Product	<ul style="list-style-type: none"> Product.ProductCode Product.Name 	ItemCode	Required: No Data Type: String Example: ABC	Product code missing ,Product Name is use as ItemCode

Salesforce object	Salesforce field (API Name)	AvaTax Field	Details	Comment
Debit Note Product	DebitNoteLine .blng__Subtotal__c	Amount	Required: Yes Data Type: Decimal Example: 100.00	SubTotal Debit Note Product line level
Product	Product.Description	Description	Required: No Data Type: String Example: Product Description	Product description Debit Note Product line level
Tax Code				
Tax Treatment	blng__Tax_Code__c	TaxCode	Required: No Data Type: String Example: FR	Applied to Debit Note Line Level
Exemption				
Account	-	Entity Use Code/Exemption	Required: No Data Type: String Example: FREIGHT / A	<ul style="list-style-type: none"> • Custom Settings Tax_Exempt • Custom field name to be provided in Tax_Exempt

AvaTax Custom Fields

AvaTax Integration package includes custom fields as follows:

Label	API Name	Data Type	Description
AvaTax AccountNumber	AvaTaxAccountNumber__c	Text(255)	Account Number to connect to AvaTax Account.
AvaTax License Key	AvaTaxLicenseKey__c	Text(255)	License Key to connect to AvaTax Account.
Customer Code	CustomerCode__c	Picklist	Select option to send Account Id, Name as Customer Code.
Doc Code	DocCode__c	Checkbox	Select option to send Transaction Id, Name as Document Code.
Sandbox	TestMode__c	Checkbox	The default account type is production. This selection changes the account type from production to sandbox.
Save transactions to AvaTax	Save_transactions_to_AvaTax__c	Checkbox	If checked, then the transaction will be posted to AvaTax.
Validate Address	Validate_Address__c	Checkbox	Set the checkbox to true to enable Address Validation feature.

How to Extend AvaTax integration using AvaTax Mapper?

AvaTax for Salesforce Billing consists of two packages AvaTax mapper and AvaTax Integration. The Integration package includes code and objects, like custom fields, page layouts while AvaTax mapper is an XML file which acts as a data layer between Salesforce and AvaTax Integration package.

For more information about the AvaTax Mapper click [here](#).

Example 1: Currently from billing, you can pass Product code or Product Name as item code. Here, you are going to pass OrderProduct Id as itemcode to Avalara service for the integration on Order object.

Follow the steps to meet the requirement:

1. Go to Tax Integration and select active Tax Integration.
2. Navigate to Notes and Attachment related list and download BillingConfig.xml file and save it on your desktop.
3. Open the BillingConfig.xml file, do the following modification, and save it.
Look for the following node and provide the name for an extender class:

```
<taxcalculation>
  <Order>
    .
    .
    .
    .
  <hooks>
    <overriderequestline>OverrideLineRequestExtender</overriderequestline>
  </hooks>
```

4. Create new apex class with name `OverrideLineRequestExtender` (name should be same as provided in xml node).

```
global class OverrideLineRequestExtender implements IOverrideRequestLine {
  global void hookExtension(LineItemModel model, Id id) {
    //you can query any field from Order Item object and assign the values.
    (Here, you are passing Id of the line)

    model.itemCode = id;
  }
}
```

5. Navigate to Notes and Attachment related list and delete existing BillingConfig.xml file and upload the modified BillingConfig.xml file (Step 3).
6. Navigate to the Order and create a transaction to see the result.
7. You have successfully modified the AvaTax request.

Example 2: Currently, billing connector can only pass Account Id or Name as Customer Code to AvaTax Services.

If there is a business requirement to pass customerCode as some other field (other than Id and Name), then follow the steps to meet the requirement:

1. Go to Tax Integration and select active Tax Integration.
2. Navigate to Notes and Attachment related list and download BillingConfig.xml file and save it on your desktop.
3. Open the BillingConfig.xml file, do the following modification, and save it. Look for the following node and provide the name for an extender class:

```
<taxcalculation>
  <Order>
    .
    .
    .
    .
  <hooks>
    <beforetaxcalculation>BeforeTaxCalculationExtender</beforetaxcalculation>
  </hooks>
```

8. Create new apex class with name `BeforeTaxCalculationExtender` (name should be same as provided in xml node).

```
global class BeforeTaxCalculationExtender implements IBeforeTaxCalculation {
  global void hookExtention(CreateTransactionModel model,
    Map<String,List<SObject>> headerResults) {
    // You can make use of headerResults (Header Query configured for respective
    object in BillingConfig.xml file) to pass the values or
    //You can query any object assign the values
    //It is assumed that you have selected Id as Customer Code in Tax Integration
    List<Account> listAcc = [SELECT xField from Account id = model.code];
    transResult.code = listAcc[0].xField;
  }
}
```

5. Navigate to Notes and Attachment related list and delete existing BillingConfig.xml file and upload the modified BillingConfig.xml file (Step 3).

6. Navigate to the Order and create a transaction to see the result.
7. You have successfully modified the AvaTax request.

Example 3: If there is a custom requirement of extracting tax details(taxbreakdown), and display it in a custom field.

Follow the steps to meet the requirement:

1. Go to Tax Integration and select active tax integration setting.
2. Navigate to Notes and Attachment related list and download BillingConfig.xml file and save it on your desktop.
3. Locate the object and search for UpdateMapping Node
4. Open the BillingConfig.xml file, do the following modification, and save it.

Look for the following node and provide the name for an extender class:

```
<taxcalculation>
  <Order>
    ....
    <Line>
      <Queries>
        <OrderItem>
          ....
          <Mapping>
            ....
          </Mapping>
          <UpdateMapping>
            <SalesTaxDetails__c>GetLineDetails</SalesTaxDetails__c>
            <!-- node key = custom object field of Order Item and node value is
                your class name -->
          </UpdateMapping>
```

5. Create new apex class with name [GetLineDetails](#) (name should be same as provided in xml node).

```
global class GetLineDetails implements IUpdateTaxHelper {
  global String extension(TransactionModel transResult, Integer lineIndex){
    String lineDetails = '';
    for(TransactionLineDetailModel tlm : transResult.lines[lineIndex].details) {
      lineDetails = 'Tax Name : '+tlm.taxName + '\n'+'Juris Name '
+tlm.jurisName;
    }
    return lineDetails;
  }
}
```

6. Navigate to Notes and Attachment related list and delete existing BillingConfig.xml file and upload the modified BillingConfig.xml file (Step 3).
7. Navigate to the Order and create a transaction to see the result.
8. You have successfully modified the AvaTax request.