Willowbend
Address Validator
Installation and User Guide

Contents

INTRODUCTION

PRODUCT OVERVIEW

Willowbend's Address Validation Application for Salesforce.com is a truly unique application that will provide you with benefits that are not available in any other application in use within Salesforce.com.

- Willowbend's application does not rely on a router into which it tries to check an address to see if it fits a range.
- Willowbend owns a fully postal compliant database of every residential and business address in the US
- Willowbend owns a fully postal compliant database of the residential and business addresses that the USPS recognizes as existing, but to which it does not deliver mail
- Willowbend's application is not a "front end" you must connect to another company's product to utilize it.
- Willowbend's application provides the user with the decision to update an address or remain with the user-entered information.
- Willowbend's application provides reporting on the address validation process including successful corrections and an itemized list of addresses that did not validate for further examination.
- Willowbend's application "looks up" an address in the Willowbend national database submitted to it and determines:
  - Does it exist?
  - Does it receive mail?
  - Is it occupied?
  - Is the address being submitted to a residence or a business?
  - Is there another address by which this address is known?
  - What are the USPS standards and associated routing information needed to achieve the lowest possible postage rate?
  - What is the Census Block Group in which the address resides?
  - What is the Congressional District of the address?
  - What are the centroid longitude and latitude of the assessor parcel in which the address resides (Not Zip4 like most apps provide, but a rooftop location)?
  - What is the unique, never changing Address ID from the Willowbend database that is assigned to the address (Perfect for deduping records and appending other information available from Willowbend?
  - What did the application have to do to gain a match or not (Confidence level)?

PRICING MODEL

Willowbend's pricing model is based on a per installation basis instead of a ~~per seat or~~ per company charge.   This means that the annual charge (currently $600) is based on the Salesforce installs used in your organization.   For example, if you have one Salesforce license, then your charge is $600 annually plus transaction charges.   If you install the Willowbend application in 2 or 3 Salesforce instances, then your annual charge is $600 times the number of installs.

Also, Willowbend provides an initial 5,000 transactions at no cost when you establish an account. In some cases, this may be all you need for several months. Additional transaction charges are reasonable, meaning that you can update all the records in your Salesforce system on a regular basis instead of allowing them to deteriorate over time. For example, 10,000 transactions are only USD$90. Compare that to other application's transaction charges. Keep your addresses up to postal standard every month – it doesn't cost a lot to have the best data with the Willowbend application in use.
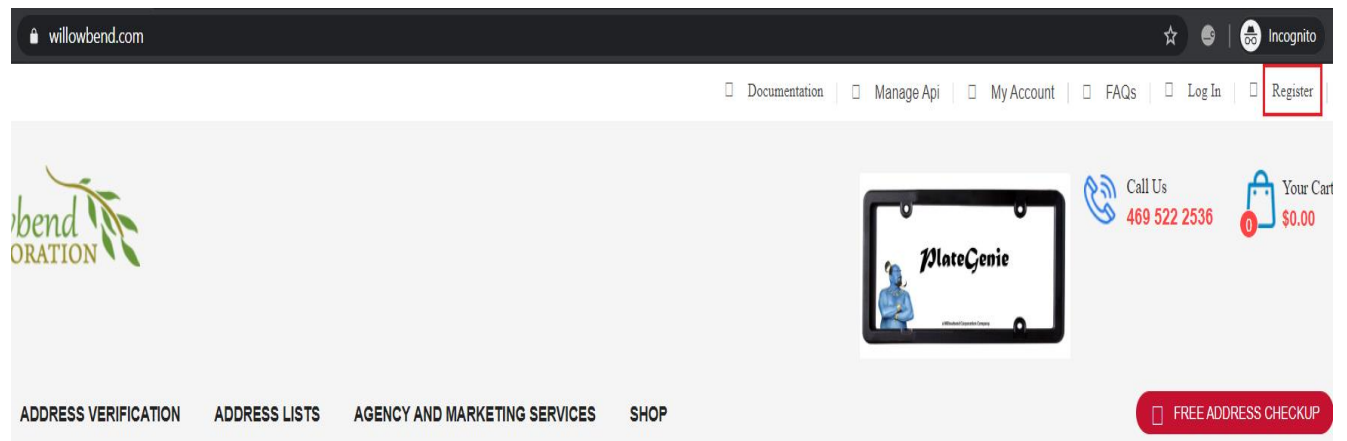
INSTALLATION

PRE-INSTALLATION

ESTABLISH AN ACCOUNT WITH WILLOWBEND

The installation of the Willowbend Address Validation package requires the user to establish an account with Willowbend Corporation.

- Establishing this account will provide the user with a "KEY" that is necessary for the package to function. Without this KEY the package cannot process addresses.
- Establishing the account prompts the Willowbend servers to provision this KEY with 5,000, no-cost, transactions for use in testing or actual processing.
- Establishing this account further provides the method by which the administrator can purchase additional transactions above the 5,000 initial free ones.
- Once your account is established, the Willowbend sends a weekly email noting the balance of transactions left in your account. You can then purchase additional transactions via your Willowbend account as shown later in this document.

Register for an Account
To register an account, go to Willowbend and click on the "Register" button.

Complete the required information and then click on 'Register'. After successful registration, you will receive a user Key. Store the Key as this will be needed during the package installation.

MANAGE API ACCOUNT

After completion of the registration process, you ~~can check with~~ the API account.

- Login into Willowbend.
- The web interface will populate with the information provided.

- Go to "Setup and Manage API Account".

- Select the radio button next to the API listing titled "Salesforce Batch Address URL API with Customer Key".
- Click the button titled "License Selected API".
- The API you have selected will now appear in the "Licensed API" window and the free 5,000 transactions will be displayed as available as shown here

TO BUY MORE TRANSACTION

This is where you can purchase additional transactions in the future. To purchase additional transactions, select from the drop-down menu titled "Buy Transactions". You will be able to select the number of transactions you wish to add to the system availability and pay for them through our online store.

The Willowbend on-line store is comparable to any other eCommerce site and allows you to pay by credit card. Once the credit card transaction is completed, the available transactions window will update itself.

SUPPORTED VERSIONS

- Developer
- Enterprise
- Unlimited
- Performance
- Professional (Require API enabled)

DOMAIN CONFIGURATION

Before installation, the package custom domain should be enabled into installation org. If the domain is already enabled then skip this step.

To Enable the custom domain to follow these steps:

- Go to Setup → Type "My Domain" in Quick Find box → Open My Domain.
- Enter Domain name and click on "Check for availability", If a domain name is available then register for domain name otherwise try with a different domain name. After registering the domain name wait for 2-3 minutes and then reload the page to check if the domain name registration process is completed or not.
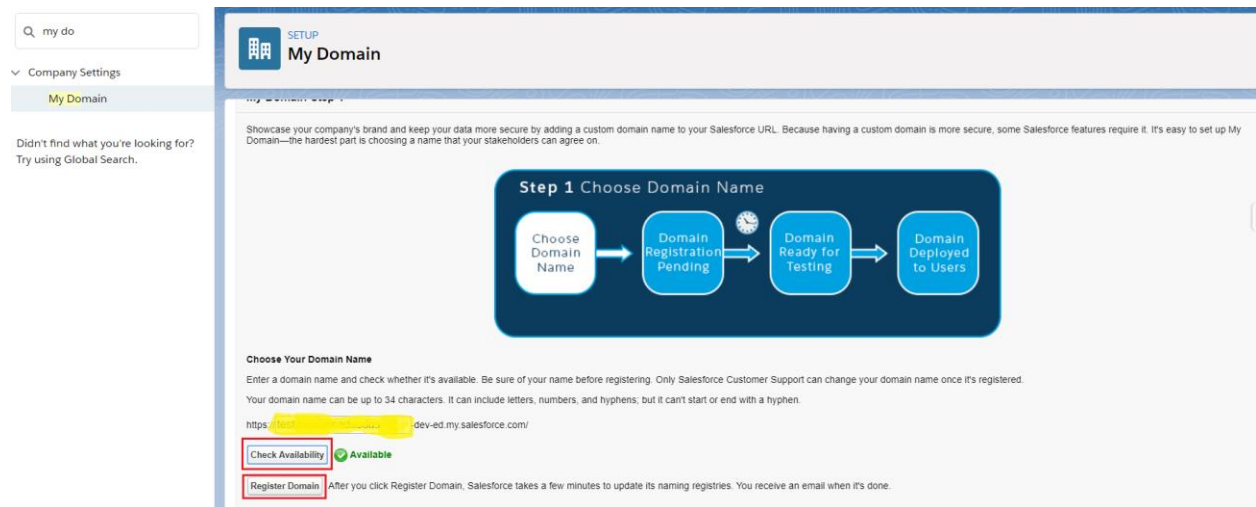
- Click on the "Log in" button, it will navigate you to a new tab. Now click on "Deploy to Users" button.
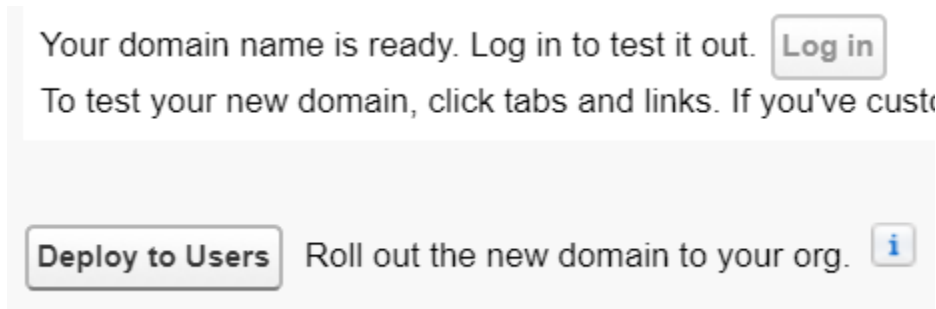
INSTALLATION

- To install the application, use this URL to install the Package:
  https://login.salesforce.com/packaging/installPackage.apexp?p0=04t2v000006jjZA
- Select the permission for who can access the Address validation application and select the checkbox below to acknowledge.

- Click on the "Install" button to begin ~~with~~ the installation process.
- A popup screen will be appearing for the approval of the "Third Party Access". Select the checkbox and click on "Continue" to install the package.

- The Package installation process will ~~get~~ commence and you will receive an email notification once the installation is completed.

POST INSTALLATION

Once the package installation is completed, the user has to perform the following setups to finish the setup.

CONFIGURE REMOTE SITE SETTING

- Go on the "**Willowbend Admin**" tab to find the remote site setting URL.
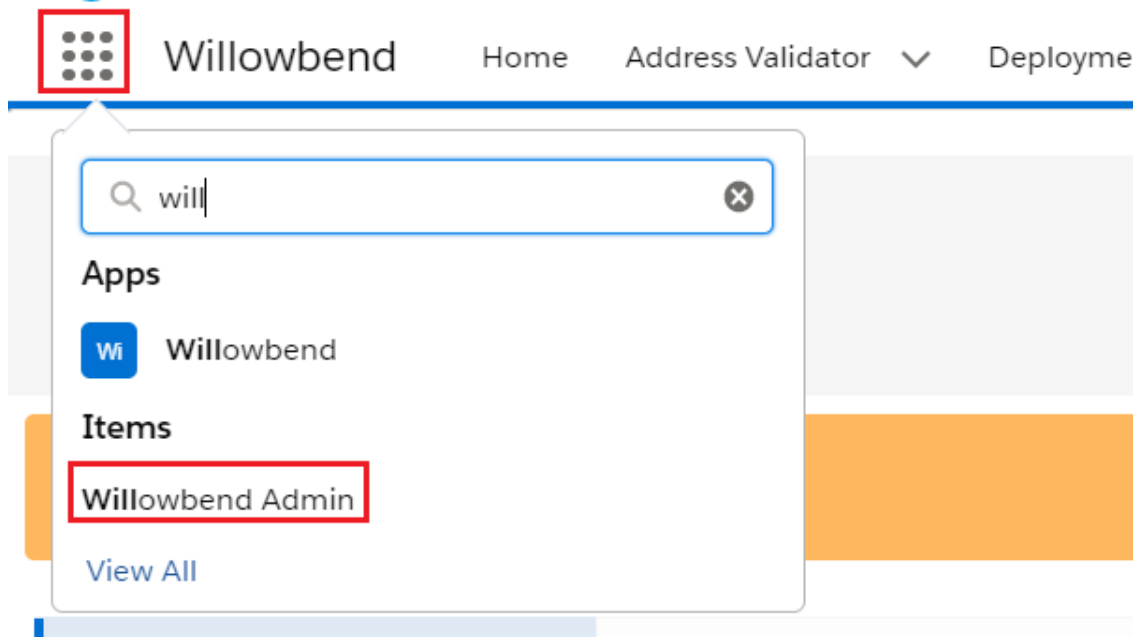
- Copy the URL from here to add it to the remote site setting.
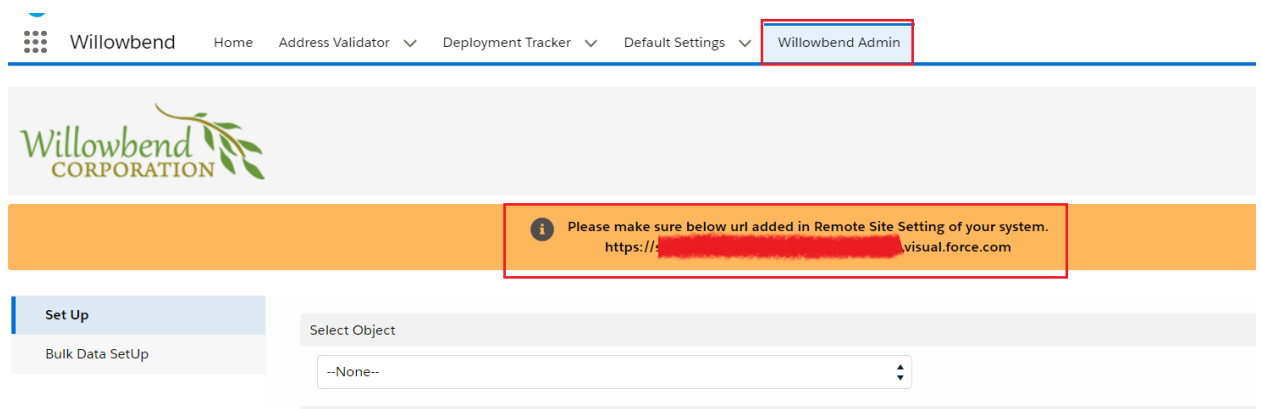
- Go to Setup → Remote site setting → Click on the "New Remote Site" button.
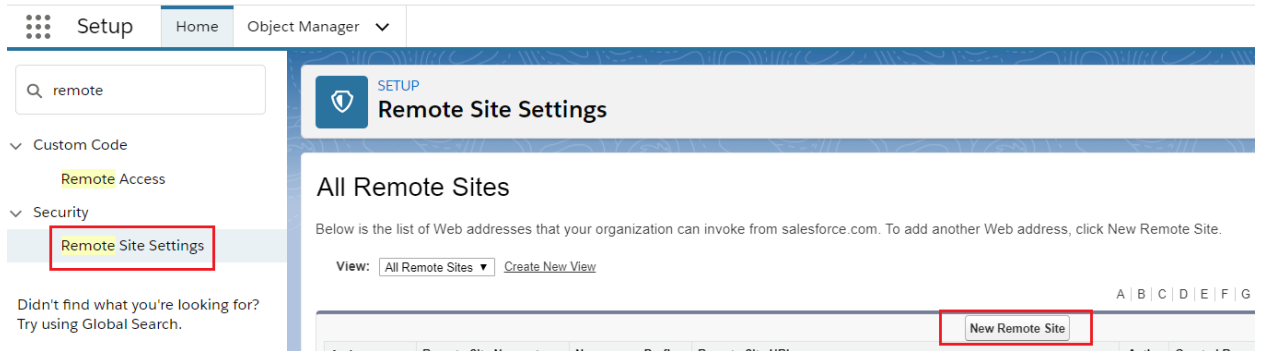
- Enter the remote site setting name as "Willowbend1".
- Enter the remote site URL that is copied from the "Willowbend Admin" tab and save the remote site setting.

CONFIGURE CUSTOM SETTING

- Go to Setup → Custom Setting → Open "Willowbend Endpoint Info" custom setting → Click on Manage button
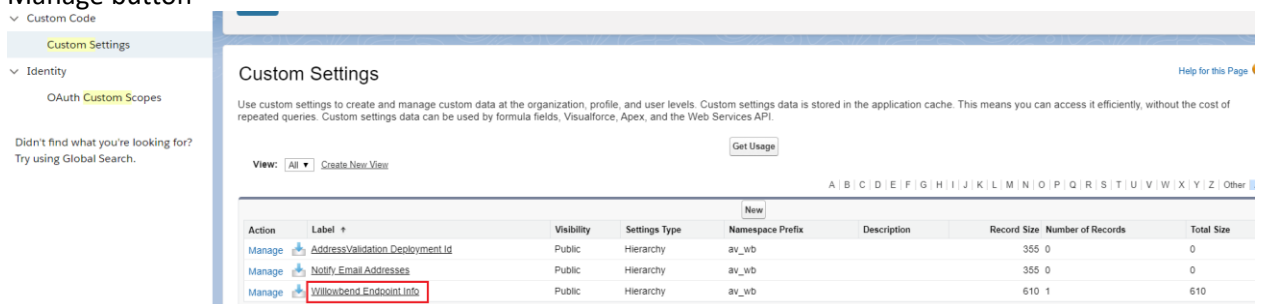
- Create a new record of the custom setting to add the Willowbend endpoint.
  - **End Point**: https://api.willowbend.com/api/address/ByLine1Batch/key/<WB Key>/product/PM. (**<WB Key>**→Provided by the Willowbend Team (Refer **"Register for A Willowbend Account** "section)
  - **Organization**: Add name of the current organization.
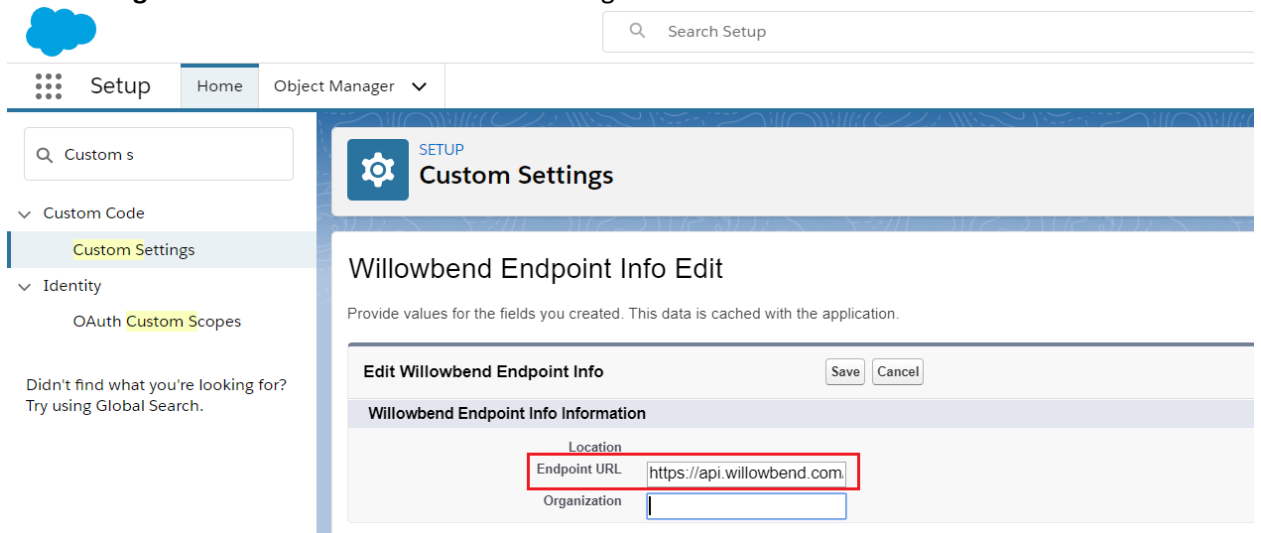
SET UP MULTIPLE EMAIL NOTIFICATIONS

There is an option to notify more than one user about the configuration setup. It can be done by performing the following.

- Go to setup → Custom Setting → Open Notify Email Addresses custom setting → Click on the Manage button.
- Create a new record. Enter CC Addresses (email addresses) separating it with a comma(,) and click on save. After saving these settings, every deployed setup will be notified to all the email id specified in the Willowbend Admin setup.

SETUP
Custom Settings

Notify Email Addresses Edit

Provide values for the fields you created. This data is cached with the application.

Edit Notify Email Addresses	Save	Cancel

Notify Email Addresses Information

Location
Cc Addresses

SECURITY AND PERMISSION

Willowbend Address Verification package also takes care of its security. All the setup is managed by System Admin. In the case of any user other than a system admin needs to execute, the case admin has to delegate access to that particular user.
When a package is installed in a Salesforce org, a permission set is also established alongside the package in the org. Admin may assign the permission set to the individual user based on the access rights requirements.

WB-User (PS) Permission Set

Features which can be accessed after the assign permission set to non-admin user are below:-

- Willowbend app will be visible to the user
- Default Setting, Address Validator, Deployment Tracker tab will be visible to the user.
- Default Setting records with read-only access.
- Address Validator record read/edit access.
- Deployment Tracker records with read-only permission

Key Points:
- After deployment of new fields for the configured objects, admin has to give visibility permission for non-admin users who want to check the result of the validation
- Permission set doesn't allow non-admin users to configure any object.

USER GUIDE

OBJECT CONFIGURATION SETUP

Once the installation process is completed admin has to configure objects for address validation. This is a one time process for configuring an object. Once an object has been configured, verification of address will be automatically done when a record is inserted or updated.
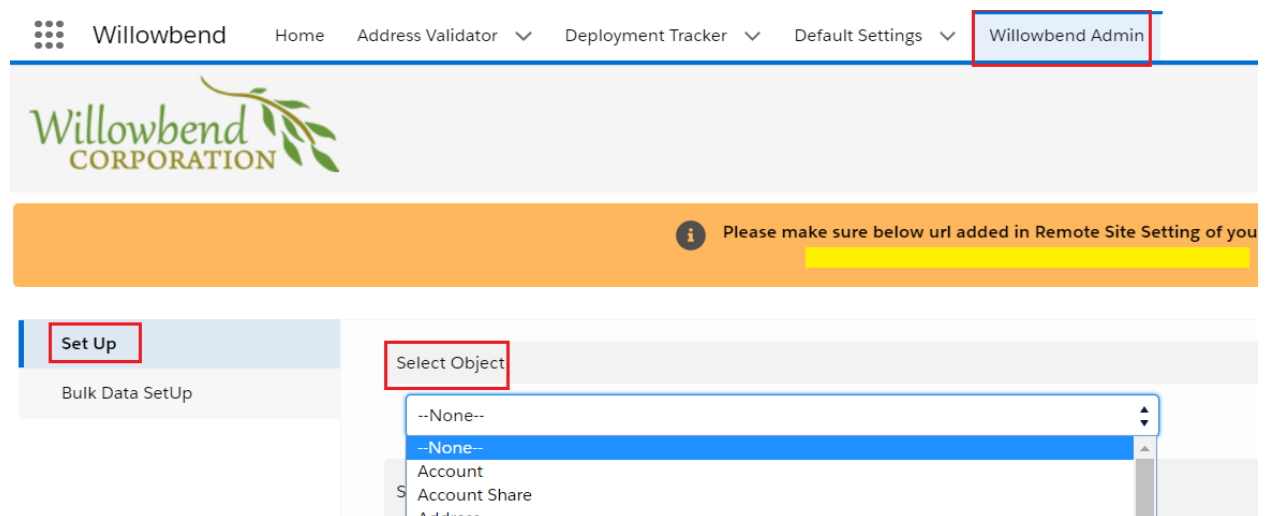
CONFIGURE OBJECTS

To configure the objects please follow below-mentioned process:-

- Open Willobend App → Open **Willowbend Admin** Tab.
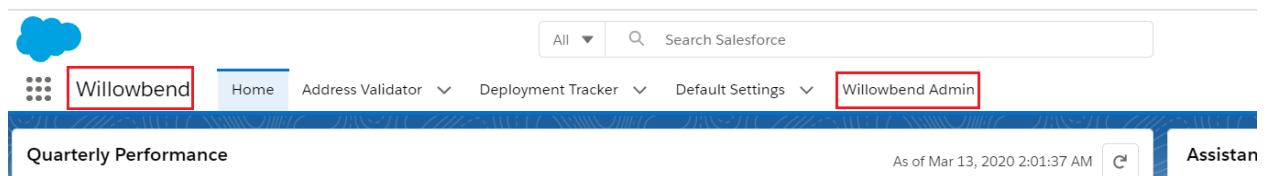
- Go to set up section →Go to **Select Object** section and select object from drop-down menu
  - **Note:-**Object drop-down menu contains both Standard and Custom Objects, select object as per the requirement for verification of addresses.

- Move to the next section "**Select Mapping**". This section is used to map the address fields which need to be validated.
  Note:-In this section all the examples are added in the context of the Account object.
  Field Details:
  - **Enter Address Name**: - <Any Name> which can help to uniquely identify results
  - **Address Line1** :- Map <Street> field
    - Ex: - If you want to validate Billing Address, select Billing Street for this field.
  - **Address Line2**:- If Street information is stored in more than 1 field use this mapping for selecting the next field with street information, otherwise leave it as blank.
  - **Address Line3**:- If Street information is stored more than 2 fields use this mapping

for selecting the next field with street information, otherwise leave it as blank.

- o **Street**: - Map field which stores Street's name information.
  - Ex: - If you want to validate Billing Address, select Billing Street for this field.
- o **City**:-Map field which stores City's name information.
  - Ex: - If you want to validate Billing Address, select Billing City for this field.
- o **Country**: - Map field which stores Country's name information.
  - Ex: - If you want to validate Billing Address, select Billing Country for this field.

- **Add new Mapping** Feature:
  If an object has saved more than one address information and wants to validate all, click on the "**Add New Mapping**" button and repeat the previous step process to fill the information.
  - o Ex: - Like Account has Billing and Shipping addresses and wants to validate both addresses using this tool. Click on New Mapping and map the required fields for Shipping Address as well.
- **Select Operation** Feature:
  Select the operation on which you want to execute Willowbend validation. For this feature two operations available:
  - o Insert: (Validate addresses only when new records are inserted)
  - o Update :-(Validate addresses when existing records are updated)
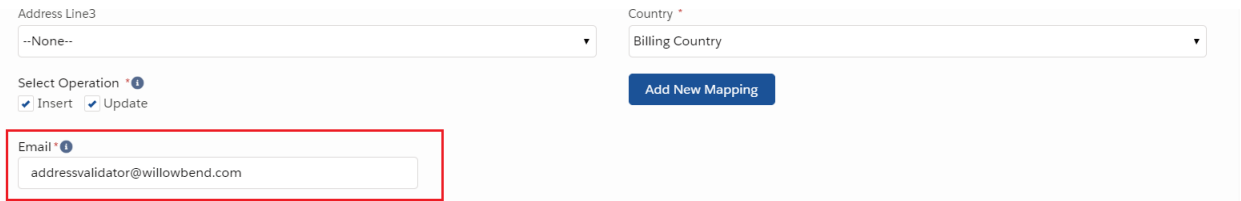
  Note: When both the operations are selected then validation will run on the insert as well as on update.

- **Email** Feature:
  Enter the email address which should get a notification when deployment is completed.
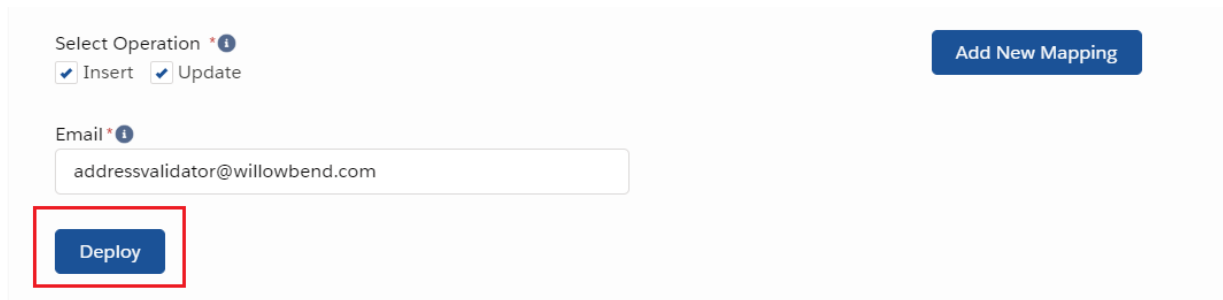
- **Deploy**
  Once all the setup is configured, click on the" deploy" button to deploy setup in the org.
  - o On completion of deployment, users will be notified via email. A link will be provided in the Email, which will take the user to the Deployment Tracker.

  Deployed Components List:
  Willowbend package is used to deploy metadata when an object configuration is set up.
 Here is the list of deployed components:
  - o **Trigger→**A trigger will deploy for the specific object which has been configured using this tool so auto validation can start when a record is inserted/updated.
  - o **Fields→** 4 fields deploy for a specific configured object.
    - ▪ Address Validated: - Checkbox type field (It shows the status of validation)
    - ▪ Address Validation Result: - Text Area field (It shows a message of validation)
    - ▪ Last Validation TimeStemp: - Date-Time type field (Validation time and date)
    - ▪ Address Validator: - Lookup field (lookup record stores complete information return by API)

DEPLOYMENT TRACKER

Once a user receives a deployment completion email, the user can track the same inside the Salesforce org as well. To verify follow below-mentioned process: -

- Open **Deployment Tracker** Tab
- A new record will get created for each and every deployment. Open that record to see the details.
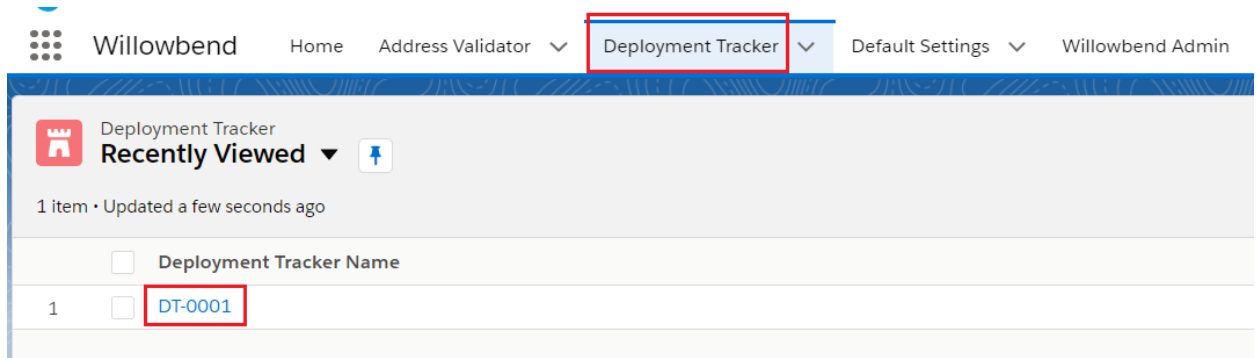
Deployment tracker record contains all information regarding deployment (Success or Error) status which is done with the above process.

It shows the following information:
- Deployment Status
- Fields Deployment Status
- Trigger Deployment Status
- Related Object
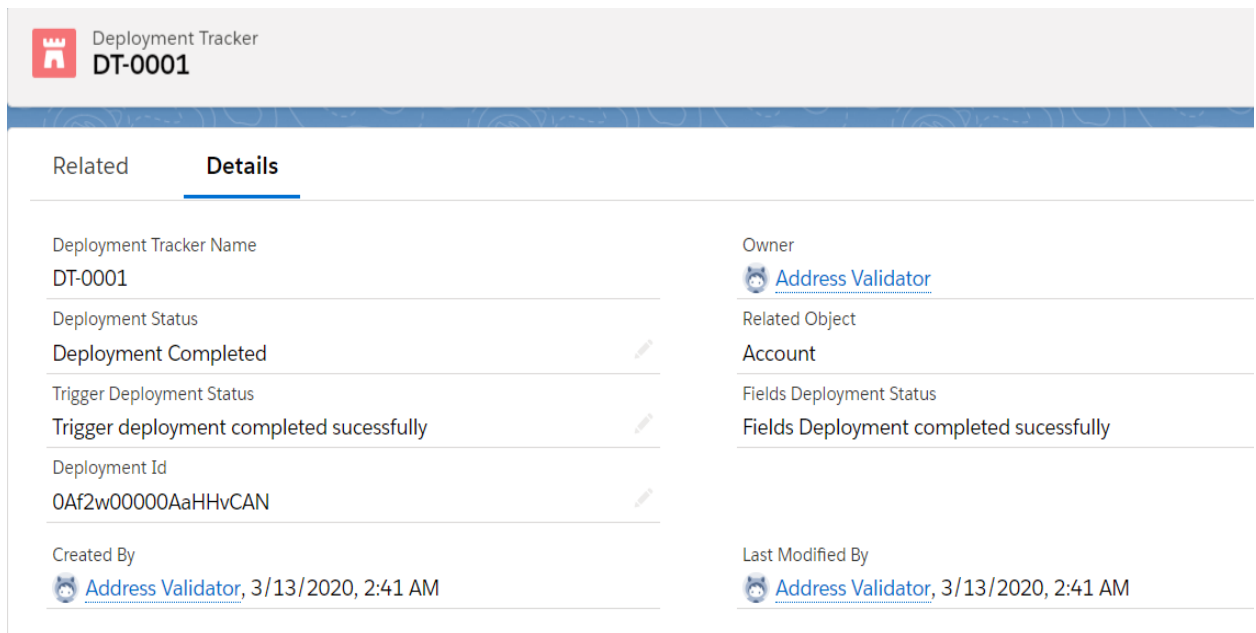
DEFAULT SETTINGS

Configured object information can be checked within the default setting tab. A record will be created on the deployment of the configuration.

If an object has more than one mapping, the default setting record will be inserted for each mapping.

Note: If you need to change anything in the existing mapping/configuration, always prefer the Willowbend Admin tab. Go to the "Willowbend Admin" tab and select the object, all the saved information will be displayed and information can be updated from there as well. Please save the page.

GET OBJECT READY FOR VALIDATION

After the configuration setup is completed, it is required to change object layouts to show the validation results.

Please follow the below-mentioned process to get objects for validation: -

- Go to Setup → Object Manager Tab → Open the same object which is used for configuration.
- Select Page Layouts (if more than one Page-layout is available, it will be decided by the Administrator/User which specific page layout or all page layouts need to be updated with the fields which are deployed by the Validator tool).
- On the Page layout, drag and drop the newly created validator fields to the related object page layout as shown below.

   o   Address Validated
   o   Address Validation Result
   o   Last Validation TimeStemp
   o   Address Validator

Note: To avoid any confusion on fields, default setting record is preferred for fields' information. You can find the "**Field Deploy Section**" to check the exact field's API name which needs to be added on to page layout.

∨ Field Deploy Section

Validated Time Stamp	Validate Check
LastValidationTimeStamp_billing__c	AddressValidated_billing__c
Validate Message	**Validator**
AddressValidationResult_billing__c	Address_Validator_billing__c

DIRECTION OF USE FOR ADDRESS VALIDATION

Willowbend Address Validation tool provides different ways to validate address:

- Single record validation
- Bulk Validation
- Scheduler for Future
- Instant Validation

SINGLE RECORD VALIDATION

Willowbend package provides features to validate addresses at the time of information is inserted or updated into the system

Process

- Go to the configured object tab.
- Create a new record/update existing one with all the required information (address fields are required for the execution of the validation process).
   o **Most Important**: While creating a new record you can find the added validator fields in the object detail page, leave those fields as blank. All will be updated automatically while validation of the address is executing.
- Reload record detail page. (It can take 30-40 Sec to update the information on the record detail page)

Result

- Address Validated: True
- Last Validation Time Stamp: Will hold the validation time.
- Address Validation Result: <Message will be displayed based on match Level>
   o [Match level table you can find it at bottom of document]
- Address Validator: Lookup of record (Address Validation Response) with all response information. After validation, the lookup field will be mapped with the link that contains the response information from the database, which will be stored in the Address validator object.

Address Information

Billing Address	Address Validator (billing)
The Landmark @ One Market San Francisco, CA 94087 US	Validated Address-0011

LastValidationTimeStamp (billing)	AddressValidationResult (billing)
3/26/2020, 2:51 AM	The input address was parsed and reconstructed based on correcting Line 1 or Line 1a, and was a "like" match for either the abbreviated version or the long version of an address in the Willowbend national database based on Line 1, Line 1a, City, State

AddressValidated(billing)

☑

BULK VALIDATION

Willowbend tool provides features for bulk address validation. For historical data validate bulk feature is much more helpful.

Key Points

- Objects which have been configured for validation in the Address Validation tool will be applicable for bulk address validation.
- This process will take place as a batch execution. The result of the validated records can be checked individually.

Process

- Go to Willowbend Admin Tab →Bulk Data Setup
- Select object: - This drop-down menu will only show configured objects.
- Select filter: - Set Filters in such a way that only specific records get validated.
- Click on the "Execute" button to execute the process immediately.

- **Schedule Feature**

  Users can schedule the process of validation for the future. To schedule the process, follow this process.
  - Click on the "Schedule" button after selecting an object and set.
  - In the "Schedule Settings", select the Frequency **Week** or **Month**
  - Enter a start date and end date
  - Select the preferred start time and click on the "Scheduled". This will initiate the scheduled bulk validation and a pop-up message will be displayed as below.

- o The newly scheduled job will be listed in the setup→ Scheduled Jobs list.
- o On the scheduled date and time, it starts the bulk validation process automatically and validates the addresses of records in the selected object and the results will be updated in the respective validator fields.

INSTANT ADDRESS VALIDATOR

If you collect address information online, in call centers or in stores, you want to make sure the data you have collected is accurate, and then instant address validation is the best choice. This component is applicable only for Lightning.

To add the instant address validator, follow mentioned setups:

- On the lightning Home page, click on the Edit Page
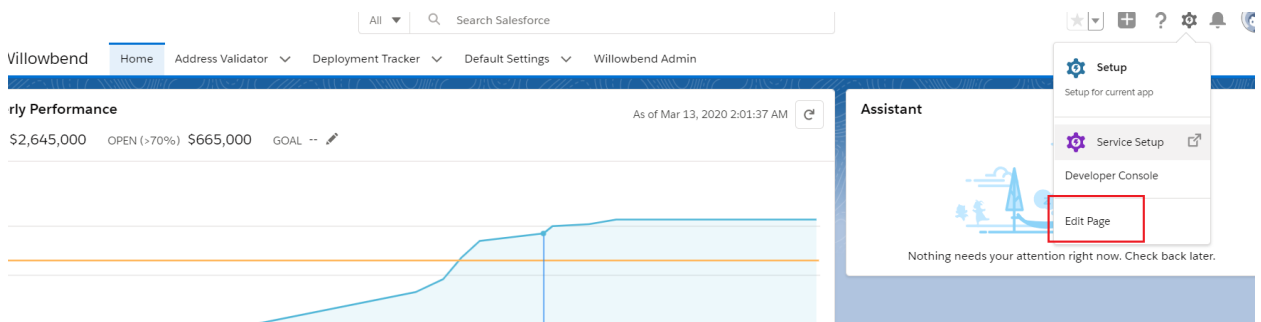
- Drag and drop the Address validator component to the home page.
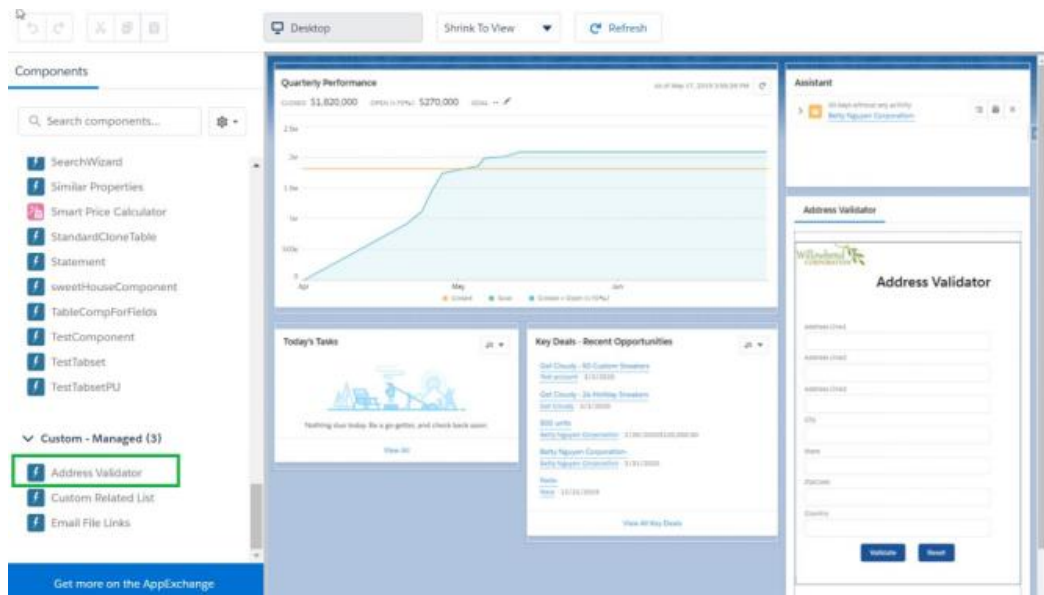
Use the Instant Address validator

To use instant Address validator, perform the following steps:

- Enter the address in the validator and click on the **Validate** button.

- The validation happens as below
  - If the address entered is valid, it shows the message informing the user that it is a valid address and the detailed information of the address will be in longitude, latitude and geo-location.
  - If the address entered is partial, it searches for the LIKELY match in the database and if it is found, it displays the detailed information of addresses.
  - **Note**: Instant address validator searches for LIKELY match in the database even if
    - Partial address is without any state, city, country is entered or if incorrect data is entered only for state and city.
    - Only zip code is entered and the rest of the fields blank
    - If the address entered is invalid, it shows the message informing the user that it is an invalid address.
- On clicking the reset button, it clears the entered address data and the user can re-enter another data for validation.

WILLOWBEND APPLICATION MATCH LEVEL AND MESSAGES

Match Level	Criteria	Messages
A1	Address is an Exact Match with Client DB	The input record was an exact match for either the abbreviated version or the long version of an address in the Willowbend national database based on Line 1, Line 1a, City, State, Zip Code
A2	Address is likely match with the basis of Line1(Street), City, State, Zip Code	The input record was a "like" match for either the abbreviated version or the long version of an address in the Willowbend national database based on Line 1, Line 1a, City, State, Zip Code
A3		The input record was a "like" match for either the abbreviated version or the long version of an address in the Willowbend national database based on Line 1, Line 1a, Zip Code
A4		The input record was a "like" match for either the abbreviated version or the long version of an address in the Willowbend national database based on Line 1, Line 1a, City, State
B1	Input Address parsed and reconstructed based on Line1,City,State,Zip Code	The input address was parsed and reconstructed based on correcting Line 1 or Line 1a, and was an exact match for either the abbreviated version or the long version of an address in the Willowbend national database based on Line 1, Line 1a, City, State, Z...
B2		The input address was parsed and reconstructed based on correcting Line 1 or Line 1a, and was a "like" match for either the abbreviated version or the long version of an address in the Willowbend national database based on Line 1, Line 1a, City, State, Zip Code
B3		The input address was parsed and reconstructed based on correcting Line 1 or Line 1a, and was a "like" match for either the abbreviated version or the long version of an address in the Willowbend national database based on Line 1, Line 1a, Zip Code
B4		The input address was parsed and reconstructed based on correcting Line 1 or Line 1a, and was a "like" match for either the abbreviated version or the long version of an address in the Willowbend national database based on Line 1, Line 1a, City, State
C1 and AID >0	Address is a LIKE match with client DB and the response contains AID>0	The raw original address was sent to the CASS/DPV system and either was a "like" match for either the abbreviated version or the long version of an address in the Willowbend national database based on Line 1, Line 1a, City, State, Zip Code
C2 and AID =0	Address is a LIKE match with client DB and the response contains AID=0	It was a non-valid address and returned with a "0"

KNOWN ISSUES/ LIMITATION

- Sometimes, Trigger deployment Status in the deployment tracker does not get updated while creating a new deployment.
- When no response is received from the client database for the entered invalid address, then the same incorrect address information is stored in the lookup field link.
- While processing addresses of 1000 records (inserted using a data loader), "Read time out" error is noticed.
- In the Enterprise edition, setup deployment fails if the org contains preconfigured settings and rules.
- Willowbend Admin screen is visible to all user profile though user installs Address Validation only for Admin.
- During uninstallation of Address validation release package, it prompts the user to delete all the configured fields and triggers manually, which is time-consuming.
- Incorrect email message is displayed to the user as deployment completed though has failed and it is clearly shown in deployment tracker.
- Mail notification says deployment successful though Address validator fields are not created.
- UI issues noticed.
- Edge: UI alignment is not proper for Address validator and Address locator is not displayed on the map of validated address.
- IE: UI alignment is not proper for Address validator and map screen not displayed.
- User2 screen gets locked when two users are performing bulk data validation at the same time for different object records.
- Appropriate message should be displayed to the user when the bulk validation date range does not have any records to validate and prevent batch to start.
- Performance of address validation takes a long time when a large number of records are bulk validated. For 100 records - 3 min is taken and 1000 records - Read Time out error noticed