Phone Number Validation

Technical Overview
Enterprise Edition

Document Version 1.0

Enterprise Edition

Revision History

Revision Detail	Author	Revision Date	Version
Initial Draft	Bill Dodson	11/13/2020	1.0

Table of Contents

Table of Figures

Enterprise Edition

1 Document Purpose

This document contains a technical overview for the **Enterprise Edition** Phone Number Validation product by Tigerface Systems, LLC.

2 Product Overview

The Enterprise Edition is an AppExchange product which allows users to validate phone numbers on Account, Contact, Lead, and other Standard or Custom Object records. This edition supports both Classic and Lightning versions of Salesforce. The solution utilizes Application Programming Interfaces (APIs) published by realphonevalidation.com. *A paid account from realphonevalidation.com is required for the use of these API services.*

2.1 Product Use Cases

After a subscriber installs the Phone Number Validation managed package, a system administrator will perform various steps to configure the product as depicted in the following diagram. Once configured, application users will be able to view up-to-date phone number validation data for Account, Contact, Lead, and Custom Object records.
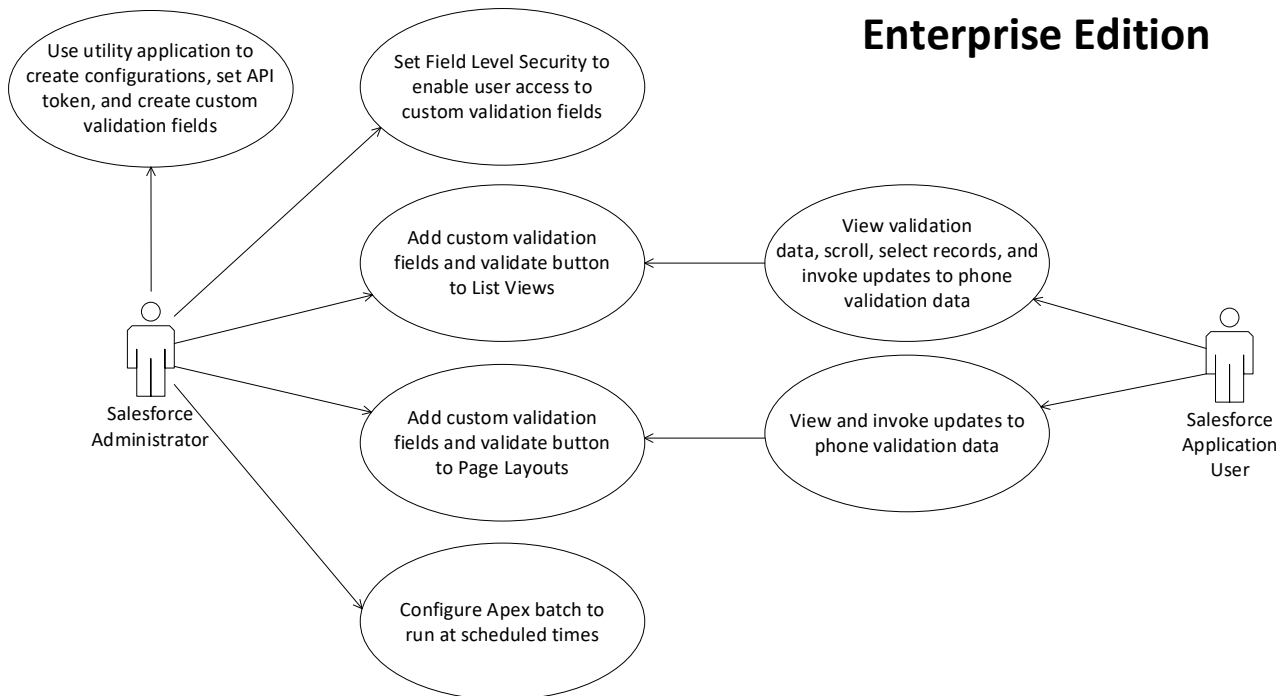

Enterprise Edition

Figure 1: Phone Validation Use Cases

Enterprise Edition

3   Setup Architecture

The following diagram presents the architecture for configuring the Phone Number Validation product:
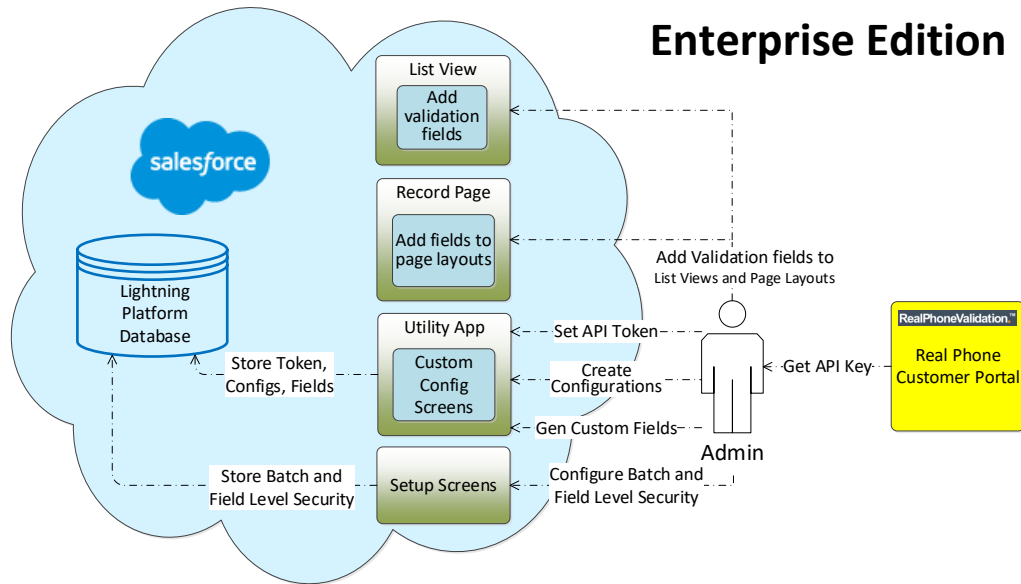

Figure 2: Setup Architecture

The product's managed package provides a Utility App with a Lightning Web Component (LWC) user interface. This interface will provide Custom Config Screens which allow the Administrator to:

- Enter the API Token which is obtained from the Real Phone Customer Portal web site. This token grants Salesforce access to the realphonevalidation.com API services.

- Create Configurations: select the validation API to be invoked; select the standard or custom object's phone number fields; and configure a filter to reduce the number of records processed by Apex Batch.

- Auto generate custom validation fields for Account, Contact, or Lead. This will allow the validation data to be viewed on page layouts and list views.

Once the configurations are created, the Administrator goes to Setup to configure Field Level Security so users can access the custom validation fields. The Administrator then adds the fields to Page Layouts and List Views.

The system administrator can also schedule an Apex Batch Job to run at specified times to retrieve up-to-date phone validation data for each configuration.

Phone Validation
by Tigerface Systems LLC

Enterprise Edition

4 Run Time Architecture

The following diagram depicts the run time architecture of the Phone Validation product.
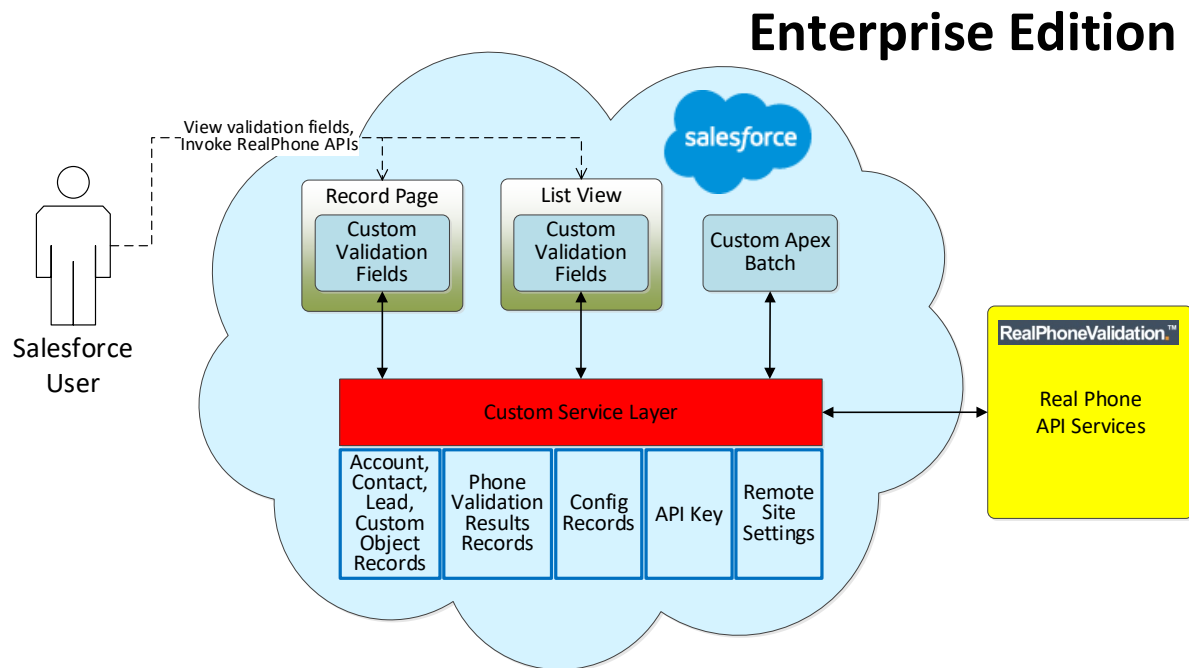

Figure 3: Run Time Architecture

Component Descriptions

- **Record Page** – custom validation fields can be viewed on Account, Contact, Lead, and Custom Object record pages. A Validation button can be clicked by the user to retrieve up-to-date phone number validation data on demand.

- **List View -** custom validation fields can be viewed on Account, Contact, Lead, and Custom Object record pages. A Validation button can be clicked by the user to retrieve up-to-date phone number validation data on demand.

- **Custom Apex Batch** – a batch job that runs periodically to retrieve up-to-date phone validation data for each Configuration definition. A system administrator will use standard Salesforce Setup pages to configure when and how often this batch job will be executed.

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5

- **Custom Service Layer** – (in red) provides services for the Lightning Web Component to invoke.

- **Real Phone API Services** – these are paid API services offered by realphonevalidation.com. The service layer will invoke these to retrieve validation data for phone numbers. A Remote Site Setting is required, along with a valid API Token issued by realphonevalidation.com.

5 About Tigerface Systems, LLC

Tigerface Systems is a custom software development company based in the suburbs of Maryland, USA. We specialize in custom Salesforce solutions that are marketed and sold on the Salesforce AppExchange. We are a private, family-owned and operated company. We do all work in-house to ensure the utmost highest quality is engineered from the beginning and maintained throughout our product's lifecycle.

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