

USPS Pricing Engine SDK

February 8, 2019

Summary

This is the Domestic and International Pricing Engine SDK (version 11.7.1.0) for the February 22, 2019 Release. The following is a list of enhancements included in this release.

Update Mailing Fees to return Bulk Insurance

This fee has been moved to a different table. It does not impact existing applications. One change is the fee can be accessed through the GetMailingFees method.

Update Price Engine to Remove Obsolete Exports for APF

This removal required us to update our libraries. It should not have any impact on your applications.

International Rate Calculator Website Returns No Mail Services for Letters

This update impacts our web application and required changes to the international business library. It should not impact your applications.

Update API calls to SDC and WebTools to use HTTPS/TLS1.2

The Pricing Engine will connect to WebTools and the Service delivery Calculator using TLS 1.2 protocol. This is a change to the Price Calculators and Price Engine Web Services Web.Config files only. This change will not have any impact on your applications.

There are changes that must be made to your applications configuration file in order to support TLS 1.2:

First, replace the binding for "serviceDeliveryCalculatorSoap11":

```
<binding name="serviceDeliveryCalculatorSoap11" maxReceivedMessageSize="2147483647" maxBufferPoolSize="2147483647">
  <readerQuotas maxArrayLength="2147483647" maxStringContentLength="2147483647"/>
  <security mode="Transport">
    <transport clientCredentialType="Certificate" />
  </security>
</binding>
```

Add the following behavior to endPointBehavior:

```
<behaviors>
  <endpointBehaviors>
    <behavior name="endpointCredentialBehavior">
      <clientCredentials>
        <clientCertificate
          storeLocation="LocalMachine"
          storeName="Root"
          x509FindType="FindByIssuerName"
          findValue="USPSInternalRootCA" />
      </clientCredentials>
    </behavior>
  </endpointBehaviors>
</behaviors>
```

Add the behaviorConfiguration attribute to the endpoint element:

```
behaviorConfiguration="endpointCredentialBehavior"
```

In conclusion, your serviceModel element should include these references to SDC:

```
<system.serviceModel>
  <bindings>
    <basicHttpBinding>
      <binding name="serviceDeliveryCalculatorSoap11" maxReceivedMessageSize="2147483647" maxBufferPoolSize="2147483647">
        <readerQuotas maxArrayLength="2147483647" maxStringContentLength="2147483647"/>
        <security mode="Transport">
          <transport clientCredentialType="Certificate" />
        </security>
      </binding>
    </basicHttpBinding>
  </bindings>
  <behaviors>
    <endpointBehaviors>
      <behavior name="endpointCredentialBehavior">
        <clientCredentials>
          <clientCertificate
            storeLocation="LocalMachine"
            storeName="Root"
            x509FindType="FindByIssuerName"
            findValue="USPSInternalRootCA" />
        </clientCredentials>
      </behavior>
    </endpointBehaviors>
  </behaviors>
  <client>
    <endpoint
      address="https://sdci-cat.usps.gov/sdc-services/services/serviceDeliveryCalculator"
      behaviorConfiguration="endpointCredentialBehavior"
      binding="basicHttpBinding"
      bindingConfiguration="serviceDeliveryCalculatorSoap11"
      contract="Domestic.SDC.SDC2Ref.serviceDeliveryCalculator"
      name="serviceDeliveryCalculatorSoap11"
    />
  </client>
</system.serviceModel>
```

Use the appropriate SDC URL as client\endpoint\address for your environment:

Table 1: SDC URLs by environment.

SIT	https://eagmmmbd281.usps.gov:9443/sdc-services/services/serviceDeliveryCalculator
CAT	https://sdci-cat.usps.gov/sdc-services/services/serviceDeliveryCalculator
PROD	https://sdci.usps.gov/sdc-services/services/serviceDeliveryCalculator

Impact on Existing Applications

You do not have to rebuild your applications.

Instructions

1. Copy the DLLs
2. SQL Scripts should be executed in the order shown below.

Note: Batch files are provided to assist with executing the scripts. They must be executed with a parameter that specifies the database name, e.g. "sql_update USPS_DOM_2019_01". They can also be used just to describe the order in which these scripts should be run.

Batch script	Parameter
SQL\Domestic\sql_update.bat	USPS_DOM_2019_01
SQL\International\sql_update.bat	USPS_INTL_2019_01

Ex: sql_update.bat USPS_DOM_2019_01

Contents

Description	File
Folder	Database
Folder	Domestic
Database	USPS_DOM_2019_01
SQL Script	B-297350.sql
Batch File	Sql_update.bat
Folder	International
Database	USPS_INTL_2019_01
SQL Script	No SQL scripts necessary
Folder	DLL
Domestic Business Rate Engine	RateEngine_DomBusiness.dll
International Business Rate Engine	RateEngine_IntlBusiness.dll
Service Delivery Extensions	ServiceDeliveryExtensions.dll
Design Model	Pricing Engine.pdf
Release Notes	USPS Pricing Engine SDK 11_7_1_0.pdf

Reported Defects and Change Request

None.