

USPS Pricing Engine SDK

April 6, 2018

Summary

This is the Domestic and International Pricing Engine SDK (version 11.6.2.0) for the April 20, 2018 Release. The following is a list of enhancements included in this release.

B-235721 - SDC 2.0

Updates have been made to the Pricing Engine to support SDC 2.0. Both SDC R8 and SDC 2.0 are supported and can be toggled in the configuration file.

Configuration File Changes

SDC Binding

For `<sdc-endpoint>` see SDC documentation. <http://eagnmnmbd281.usps.gov:9080/sdc-services/services/serviceDeliveryCalculator> was used for DEV and SIT.

Add:

```
<binding name="serviceDeliveryCalculatorSoap11"
  maxReceivedMessageSize="2147483647"
  maxBufferPoolSize="2147483647" >
  <readerQuotas maxArrayLength="2147483647"
    maxStringLength="2147483647"/>
</binding>
```

to section:

```
<system.serviceModel>
  <bindings>
    <basicHttpBinding>
      ...
    </basicHttpBinding>
  </bindings>
</system.serviceModel>
```

Add:

```
<endpoint
  address="<sdc-endpoint>"
  binding="basicHttpBinding"
  bindingConfiguration="serviceDeliveryCalculatorSoap11"
  contract="Domestic.SDC.SDC2Ref.serviceDeliveryCalculator"
  name="serviceDeliveryCalculatorSoap11" />
```

to section:

```
<system.serviceModel>
  <client>
    ...
  </client>
</system.serviceModel>
```

SDC Application Settings

To toggle between SDC R8 and SDC 2.0 the set the ServiceDeliveryCalculator.Provider key in the <appSettings> section. The value can be set to either “SDC_R8” or “SDC2”.

Example:

```
<add key="ServiceDeliveryCalculator.Provider" value="SDC_R8"/>
```

or

```
<add key="ServiceDeliveryCalculator.Provider" value="SDC2"/>
```

Other SDC keys:

```
<add key="ServiceDeliveryCalculator.Timeout" value="10000"/>
```

```
<add key="ServiceDeliveryCalculator.Available" value="true"/>
```

Impact on Existing Applications

You will not have to rebuild your applications.

Instructions

1. Copy the DLLs
2. Update the configuration files

Contents

Description	File
Folder	Libraries
Rate Engine Framework	RateEngine_Framework.dll
Business Framework	RateEngine_Business.dll
Domestic Business Rate Engine	RateEngine_DomBusiness.dll
International Business Rate Engine	RateEngine_IntlBusiness.dll
Service Delivery Extensions*	ServiceDeliveryExtensions.dll
Customs Forms Engine	CustomsFormsEngine.dll
<i>*Library has been updated since the last SDK release</i>	
Design Models	Pricing Engine.pdf
	ServiceDeliveryExtensions.pdf
Release Notes	USPS Pricing Engine SDK 11_6_2_0.pdf

Reported Defects and Change Request

HFPU Defect Mailing from APO Location	Fixed
SDC R8 and SDC 2.0 different results for additional drop off locations	As Designed
SDC R8 and SDC 2.0 different results Loss Only Guarantee	Fixed
SDC R8 and SDC 2.0 different results PM HFPU	As Designed

SDC 2.0 - HFPU Defect Mailing from APO Location

Description

During SIT testing found difference between SDC R8 and SDC 2.0 while mailing from APO location to 44907. SDC 2.0 displays HFPU under mail services and SDC R8 does not.

Resolution

Fixed

Resolution Details:

Updated code to handle SDC messages

SDC R8 and SDC 2.0 different results for additional drop off locations

Description

SDC 2.0 is showing different result than SDC R8 in the following scenario.

1. Launch postcalc-sit2.usps.com and postcalc-sit1.usps.com
2. Enter the following from and to zip codes - 99501 - 99545
3. Click on Continue
4. Click on Show additional drop off locations under PME
5. Please note that SDC 2.0 does not display all the locations that are listed on SDC R8

Resolution

As Designed

Resolution Details:

In SDC 2.0 we can now limit the number of drop off locations returned, the code has been updated to only return 20 locations since any more than 20 locations seems to be bad UI design and lower the user experience.

(4/5/2018 daily scrum: Audrey Meloni approved returning only 20 locations)

I tested a couple different ZIP code pairs and found that the following drop off location types are being returned

- POST OFFICE
- EXPRESS MAIL COLLECTION BOX
- CONTRACT POSTAL UNIT

SDC R8 and SDC 2.0 different results Loss Only Guarantee

Description

SDC 2.0 is showing different result than SDC R8 in the following scenario.

1. Launch postcalc-sit2.usps.com and postcal-sit1.usps.com
2. Enter to and from zip codes - 44907 and 96932
3. Click on Continue
4. Please note that under PME - Money Back Guarantee for Loss only does not display on SDC 2.0
5. Please note that Loss Only Guarantee does not display under PME Guarantee

Screenshots

The screenshot shows the USPS Service Commitments page. At the top, there are navigation links: Domestic, International, Pricing, and Postal Explorer. The main heading is "USPS.COM Service Commitments". Below this, there are four input fields: "What ZIP Code are you mailing from?" (44907), "What ZIP Code are you mailing to?" (96932), "What Date do you plan to mail the item?" (04/18/2018), and "What's the Time you plan to mail the item?" (between 1:30 p.m. - 2:00 p.m.). A "Continue" button is located below these fields.

Below the "Continue" button, there are two tables of shipping options. The first table is for "Priority Mail Express" and the second is for "Priority Mail".

Priority Mail Express	Scheduled Delivery Day
Priority Mail Express - Money Back Guarantee for Loss Only	Sat, Apr 21 by 3:00 PM
Priority Mail Express Hold for Pickup - Money Back Guarantee for Loss Only	Sat, Apr 21 by 3:00 PM

Drop-Off By	Facility Type	Address	Guarantee
Wed, Apr 18 by 6:00 PM	POST OFFICE	200 N DIAMOND ST, MANSFIELD, OH 44901	Loss Only Guarantee
Wed, Apr 18 by 5:00 PM	POST OFFICE	672 1/2 LOGAN RD, MANSFIELD, OH 44907	Loss Only Guarantee

[Show Additional Drop-Off Locations](#)

Priority Mail	Expected Delivery Day
Priority Mail	Mon, Apr 23
Priority Mail Hold for Pickup	Mon, Apr 23

Drop-Off By	Facility Type	Address	Guarantee
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USPS.COM Service Commitments

What ZIP Code are you mailing from?

44907

What ZIP Code are you mailing to?

96932

What Date do you plan to mail the item?

04/18/2018

What's the Time you plan to mail the item?

between 1:30 p.m. - 2:00 p.m. ▼

Continue

Priority Mail Express	Scheduled Delivery Day
Priority Mail Express [REDACTED]	Sat, Apr 21 by 3:00 PM
Priority Mail Express Hold for Pickup [REDACTED]	Sat, Apr 21 by 3:00 PM

Drop-Off By	Facility Type	Address	Guarantee
Wed, Apr 18 by 6:00 PM	POST OFFICE	200 N DIAMOND ST, MANSFIELD, OH 44901	No Guarantee
Wed, Apr 18 by 5:00 PM	POST OFFICE	672 1/2 LOGAN RD, MANSFIELD, OH 44907	No Guarantee

[Show Additional Drop-Off Locations](#)

Priority Mail	Expected Delivery Day
Priority Mail	Mon, Apr 23
Priority Mail Hold for Pickup	Mon, Apr 23

Drop-Off By	Facility Type	Address	Guarantee
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Resolution

Fixed

Resolution Details:

Updated code

SDC R8 and SDC 2.0 different results PM HFPU

Description

SDC 2.0 is showing different result than SDC R8 in the following scenario. Please see screenshot below. Please let me know if this needs to be added to Version One.

1. Launch postcalc-sit1.usps.com
2. Select Service Commitments under Domestic
3. Enter 44907 and 96863 as from and to zip codes
4. Plan date as 4/18/2018
5. Click on Continue

6. Please note that the PM HFPU date on SIT1 is April 21st and on SDC 2.0 is April 23rd

Screenshots

The screenshot shows the USPS.COM Service Commitments page. The user has entered a mailing date of 04/18/2018 and a time of between 1:30 p.m. - 2:00 p.m. The page displays delivery commitments for Priority Mail Express and Priority Mail.

Priority Mail Express			Scheduled Delivery Day
Priority Mail Express - Money Back Guarantee			Fri, Apr 20 by 3:00 PM
Priority Mail Express Hold for Pickup - Money Back Guarantee			Fri, Apr 20 by 3:00 PM
Drop-Off By	Facility Type	Address	Guarantee
Wed, Apr 18 by 6:00 PM	POST OFFICE	200 N DIAMOND ST, MANSFIELD, OH 44901	Money Back Guarantee
Wed, Apr 18 by 5:00 PM	POST OFFICE	672 1/2 LOGAN RD, MANSFIELD, OH 44907	Money Back Guarantee
Show Additional Drop-Off Locations			
Priority Mail			Expected Delivery Day
Priority Mail			Sat, Apr 21
Priority Mail Hold for Pickup			Mon, Apr 23

The screenshot shows the USPS.COM Service Commitments page. The user has entered a mailing date of 04/18/2018 and a time of between 1:30 p.m. - 2:00 p.m. The page displays delivery commitments for Priority Mail Express and Priority Mail.

Priority Mail Express			Scheduled Delivery Day
Priority Mail Express - Money Back Guarantee			Fri, Apr 20 by 3:00 PM
Priority Mail Express Hold for Pickup - Money Back Guarantee			Fri, Apr 20 by 3:00 PM
Drop-Off By	Facility Type	Address	Guarantee
Wed, Apr 18 by 6:00 PM	POST OFFICE	200 N DIAMOND ST, MANSFIELD, OH 44901	Money Back Guarantee
Wed, Apr 18 by 5:00 PM	POST OFFICE	672 1/2 LOGAN RD, MANSFIELD, OH 44907	Money Back Guarantee
Show Additional Drop-Off Locations			
Priority Mail			Expected Delivery Day
Priority Mail			Sat, Apr 21
Priority Mail Hold for Pickup			Sat, Apr 21
Drop-Off By	Facility Type	Address	Guarantee

Resolution

As Designed

Resolution Details:

SDC 2.0 is returning a different commitment for PM HFPU. I would assume this is due to the Post Office not being open on Sat. at the destination ZIP.