

USPS Pricing Engine SDK

December 18, 2018

Summary

This is the Domestic and International Pricing Engine SDK (version 11.7.0.0) for the January 27, 2019 Release. The following is a list of enhancements included in this release.

BNS 1188 - Omnibus Price Change - Regulatory Rate Change (Competitive and Market Dominate)

Actual changing of prices other than structural (i.e. a price cell change). In addition to mail/extra service price changes, prices for surcharges, discounts, and mailing fees have been changed as well.

Changes to the Database Structure

New databases are created to support domestic and international logic and prices. These databases are named USPS_DOM_2019_01 and USPS_INTL_2019_01 respectively.

BNS 1177 – FCPS Implementation of Zone Based Pricing

Add zone based pricing structure to our existing ounce based pricing structure for all FCPS customers.

This only affects Priority Mail. Operations have found it is more feasible to process the APO/FPO/DPO Priority Mail (only) in Chicago, for all theaters, then transport to the outgoing facilities.

Customer Maps impacted by this change

CNSB_eVS_009B6	eVS_025P6
CNSB_eVS_009B8	MRS_017B4
CNSB_Meter_009B5	PC_Postage_007B7
EASRv2_015B4	PriceCalc_014X0
eVS_011B6	SBP_022B6
eVS_025B6	WebTools_004B4
eVS_025P6	

Changes to the Database Structure

A new table, dm_first_class_package_service, has been created to support zone based pricing.

BNS 1217 – Elimination of FCMI Flats Weight Steps over 15.994 ounces

Eliminate the FCMI Flats/Large Envelopes weight steps over 15.994 ounces.

NOTE: If a customer requests a flat over 15.994 ounces, the FCPIs mail service will be returned (depending on country limits).

BNS 1169, 1192, 1193 - Dim Weight BNSs - Domestic Business Calculator

Apply dimensional weight pricing calculation to Priority Mail, Priority Mail Express, and Parcel Select.

For Priority Mail, dimensional weight will be applied to all zones. The dimensional weight divisor will vary by zone. Balloon pricing is no longer applicable.

For Priority Mail Express, dimensional weight will be applied to all zones. The dimensional weight divisor will vary by zone.

For Parcel Select Destination Entry Machinable and Non-machinable, dimensional weight will be applied to DNDC Entry Zones 1-5, DSCF Entry 5-Digit and 3-Digit, and DDU. The dimensional weight divisor will vary by zone.

Changes to the Database Structure

A new table, named the DimensionalWeightDivisor, has been added to maintain the divisor assigned to each zone and mail class.

BNS 1216 Premium Forwarding Service

Allow PO Box holders (excluding Group E box customers) to pay an additional fee to have their PO Box mail delivered to their street delivery address in lieu of having to travel to the Post Office to pick up their PO Box mail.

These fees are accessible through the MailingFees API, Key name PremiumForwardingService, sub-keys Local\EnrollmentFee\Online and Local\ReshipmentFee.

BNS 1216 Update SKU Definition in Mailing Fees

Support additional fees for Premium Forwarding Service:

- Commercial - Priority Mail
 - Enrollment Fee - Online 19.35
 - Shipment Charge 21.10
- Residential - Priority Mail
 - Enrollment Fee - Online 19.35
 - Shipment Charge 21.10

BNS 1225 Small Parcel Forwarding Fee

This fee is added so that the customer could designate that they want the piece forwarded at the time of mailing if the address is no longer valid and there is a COA on file. They would be charged a flat fee for that forwarding.

These fees are available through the MailingFees API, Key name AddressCorrection, sub-key PerPieceForwardingFee\USPSMarketingMail\Parcel and PerPieceForwardingFee\ParcelSelectLightweight\Parcel.

BNS 1169, 1192, 1193 – PM Balloon Rate is being used for all zones

The Priority Mail balloon rate is being applied all zones when calculating the price using the 2018 Price Change data. Updated code to correctly apply the balloon rates based on the dim wt. table.

BNS 1169, 1192, 1193 - Return Dimensional Weight to WebTools

When dimensional weight is used to calculate the postage, return the dimensional weight in the Postage Services - DimensionalWeight attribute for the CalculateSevicePrice and GetServicesWithPricing Methods.

Otherwise, do not return the Postage Services- DimensionalWeight attribute.

BNS 1188 - CR 1188.4 - Country Name Changes - Implementation

There are a number of country name changes.

- Swaziland (Country ID **10410**) will be *updated to Eswatini*
- Country IDs to have the Country Code updated to **UK** and the description *updated with United Kingdom of Great Britain and Northern Ireland*
 - **10140** - Alderney (Channel Islands) (Great Britain and Northern Ireland) *updated to Alderney (Channel Islands) (United Kingdom of Great Britain and Northern Ireland)*
 - **10141** - Channel Islands (Jersey, Guernsey, Alderney and Sark) (Great Britain and Northern Ireland) *updated to Channel Islands (United Kingdom of Great Britain and Northern Ireland)*
 - **10142** - England (Great Britain and Northern Ireland) *updated to England (United Kingdom of Great Britain and Northern Ireland)*
 - **10143** - Great Britain and Northern Ireland *updated to United Kingdom of Great Britain and Northern Ireland*
 - **10144** - Guernsey (Channel Islands) (Great Britain and Northern Ireland) *updated to Guernsey (Channel Islands) (United Kingdom of Great Britain and Northern Ireland)*
 - **10145** - Isle of Man (Great Britain and Northern Ireland) *updated to Isle of Man (United Kingdom of Great Britain and Northern Ireland)*
 - **10146** - Jersey (Channel Islands) (Great Britain and Northern Ireland) *updated to Jersey (Channel Islands) (United Kingdom of Great Britain and Northern Ireland)*
 - **10147** - Northern Ireland (Great Britain and Northern Ireland) *updated to Northern Ireland (United Kingdom of Great Britain and Northern Ireland)*
 - **10148** - Sark (Channel Islands) (Great Britain and Northern Ireland) *updated to Sark (Channel Islands) (United Kingdom of Great Britain and Northern Ireland)*
 - **10149** - Scotland (Great Britain and Northern Ireland) *updated to Scotland (United Kingdom of Great Britain and Northern Ireland)*
 - **10150** - United Kingdom (Great Britain and Northern Ireland) *updated to United Kingdom (United Kingdom of Great Britain and Northern Ireland)*
 - **10151** - Wales (Great Britain and Northern Ireland) *updated to Wales (United Kingdom of Great Britain and Northern Ireland)*

BNS 1169, 1192, 1193 - Implement Solutions to Accommodate Split Retail - Commercial Price Change

The proposed changes to Jan 2019 Price Change would mean that the Dim Wt changes will only be applied to Retail and not to Commercial. In that case, prices returned from Price Engine would have Dim Wt applied to "R" rates but not to "CB" and "CP" rates on the "B" and "P" maps.

BNS 1169.5, 1192.5, 1193.5 - Disable Dim Weight

Much of the planned dimensional weighting is being deferred until June 23, 2019. The list below details the plan forward.

- Priority Mail Commercial DIM weight provisions apply to Zones 5 through 9 with a divisor of 194 will remain. Priority Mail Commercial DIM weight provisions apply to Zones 1 through 9 with a divisor of 166 effective June 23, 2019.
- Priority Mail Retail DIM weight provisions apply to Zones 5 through 9 with a divisor of 194 will remain. Priority Mail Retail DIM weight provisions apply to Zones 1 through 9 with a divisor of 166 effective June 23, 2019.
- Priority Mail Retail and Commercial Balloon is eliminated effective Jan, 27, 2019
- Express Mail Commercial DIM weight apply through Zones 1 through 9 with a divisor of 166 effective June 23
- Express Mail Retail DIM weight apply through Zones 1 through 9 with a divisor of 166 effective June 23.
- Parcel Select Ground and Destination Entry DIM weight provisions apply to all zones and all entries with a divisor of 166 effective June 23, 2019
- Parcel Select Ground and Destination Entry Balloon is eliminated effective Jan, 27, 2019
- USPS Retail Ground formerly known as Parcel Post will continue to have Balloon and No Dim provisions.

BNS 1228 Priority Mail Sunday/ 7 Day Delivery Expansion - Price Engine Analysis & Implementation

Return delivery commitments for Priority Mail Sunday/7 Day Delivery.

BNS 1217 - Modifications and Promote new price files for the FCMI change

This modification backs out the changes made by the initial release “BNS 1217Eliminate the FCMI Flats/Large Envelopes weight steps over 15.994 ounces”. First-Class Mail International Flats/Large Envelope returns the updated prices for up to 64 ounces (4 lbs) for Jan 2019 Price Change, matching the current 2018 functionality.

BNS 1188 - Update SDR Value

This update includes a script to update the Special Drawing Rights.

BNS 1177 - Zone Chart - First-Class Package Services / 2019 Update

Support zone exceptions for First-Class Package Service to some APO/FPO/DPO.

BNS 1217 - Restore change to remove BNS 1217 from January 2019 Price Change and revert back to 64 ounces on FCMI

A mistake in the prior release, 12/13/2018, resulted in the BNS 1213 for FCMI to being restored. The SQL script BNS 1217 Revert.sql was omitted from the sql_update.bat script. This SQL scripthas been restored.

Updated version number and sign all DLLs

All the libraries have been update to version 11.7.0.0 and re-signed.

Updated databases

New databases have been created for this release: USPS_DOM_2019_01 and USPS_INTL_2019_01 for domestic and international respectively. With Advance Pricing the Pricing Engine will continue to use the USPS_DOM_2018_01 and USPS_INTL_2018_01 databases for shipping date prior to the price change date (See the USPS Pricing Engine SDK 11_5_1_0 release notes or the Pricing Engine DotNET Developers Guide for details on advance pricing).

Impact on Existing Applications

You will have to rebuild your applications.

Instructions

1. Copy the DLLs
2. Restore the databases (SQL Server 2016 backups). The database backups are not included and can be downloaded separately. Note: the SQL script files have been included in the package for those that cannot restore the SQL Server 2016 backups. 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\Domestic\sql_update_2018_only.bat	USPS_DOM_2018_01
SQL\International\sql_update.bat	USPS_INTL_2019_01
SQL\International\sql_update_2018_only.bat	USPS_INTL_2018_01

Ex: sql_update.bat USPS_DOM_2019_01

Contents

Description	File
Folder	Database
Folder	Domestic
Database	USPS_DOM_2019_01
SQL Script	BNS 1177 SQL - Create New Database Table.sql
SQL Script	BNS 1177 SQL - Delete - Add Rows to CalculatorToElement table.sql
SQL Script	CreateClient_eVS_025B6.sql
SQL Script	CreateClient_WebTools_004B4.sql
SQL Script	CreateClient_MRS_017B4.sql
SQL Script	CreateClient_PC_Postage_007B7.sql
SQL Script	CreateClient_CNSB_eVS_009B6.sql
SQL Script	CreateClient_CNSB_eVS_009B8.sql

SQL Script	CreateClient_CNSB_Meter_009B5.sql
SQL Script	CreateClient_eVS_011B6.sql
SQL Script	CreateClient_SBP_022B6.sql
SQL Script	CreateClient_EASRv2_015B4.sql
SQL Script	CreateClient_eVS_025P6.sql
SQL Script	CreateClient_PriceCalc_014X0.sql
SQL Script	CreateClient_eVS_011B8.sql
SQL Script	CreateClient_eVS_025B8.sql
SQL Script	CreateClient_eVS_025P8.sql
SQL Script	CreateClient_WebTools_004P4.sql
SQL Script	BNS 1169_1192_1193 - 2019 Table Update.sql
SQL Script	BNS 1188 Jan 2019 Price Change - RateCalc Domestic.sql
SQL Script	BNS 1188 Jan 2019 Price Change - RateCalc Dom - Mailing Fees.sql
SQL Script	BNS 1188 Discount and Surcharges.sql
SQL Script	BNS 1062_1216_1225.sql
SQL Script	BNS 1193 Add Dimensional Range.sql
SQL Script	BNS 1169-3_1192-3_1193-3 - 2019 only - No Dim Wt Changes.sql
SQL Script	BNS 1188 Mailing Fees Correction.sql
SQL Script	BNS 1188 Update Holidays for 2019.sql
SQL Script	BNS 1177 - Zone Chart - First-Class Package Services -2019 Update - Implement and Update Zone Data.sql
Batch File	Sql_update.bat
Batch File	Sql_update_2018_only.bat
Database	USPS_DOM_2018_01
SQL Script	BNS 1169_1192_1193 - 2018 Table Update.sql
Folder	International
Database	USPS_INTL_2019_01
SQL Script	BNS 1188 Jan 2019 Price Change - RateCalc International.sql
SQL Script	BNS 1188 Jan 2019 Price Change - RateCalc Intl - Mailing Fees.sql
SQL Script	BNS 1217.sql
SQL Script	BNS 1188 - CR 1188.4 - Country Name Changes.sql
SQL Script	BNS 1217 Revert.sql
SQL Script	BNS 1188 Update SDR Value.sql
Batch File	Sql_update.bat
Folder	DLL
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
Design Model	Pricing Engine.pdf

Reported Defects and Change Request

BNS 1169, 1192, 1193 - PM Balloon Rate is being used for all zones	Corrected
BNS 1188 - Incorrect Mailing Fee DML/DAL for Targeted Samples	Corrected
BNS 1188 - FCM Letters - Nonmachinable Surcharge Incorrect	Corrected
BNS 1188 - CR 1188.4 - Update ICLs (GetCountryRegulations).	Corrected
BNS 1188 - Update SDR Value with Info from Global group	Corrected
BNS 1217 - Restore change to remove BNS 1217 from January 2019 Price Change and revert back to 64 ounces on FCMI	Corrected

BNS 1169, 1192, 1193 - PM Balloon Rate is being used for all zones

Updated code to correctly apply the balloon rates based on the dim wt. table.

BNS 1188 - Incorrect Mailing Fee DML/DAL for Targeted Samples

Updated database values for DomesticBusinessMailing.DetachedAddressLabels.TargetedSamples and DomesticBusinessMailing.DetachedMarketingLabels.TargetedSamples. The cost was corrected to equal 0.00.

BNS 1188 - FCM Letters - Nonmachinable Surcharge Incorrect

Update database footnotes to correct the value of the nonmachinable surcharge to read 0.150.

BNS 1188 - CR 1188.4 - Update ICLs (GetCountryRegulations).

A name change for Swaziland to Eswatini.

BNS 1188 - Update SDR Value

The Global group provided new information pertaining to what this value should be.

BNS 1217 - Restore change to remove BNS 1217 from January 2019 Price Change and revert back to 64 ounces on FCMI

This script was dropped from the sql_update.bat file by mistake.