USPS Web Tools Migration Guide

Label and SCAN Form APIs

Version 1.1 (07/19/2024)



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1 Overview

USPS is taking steps with its API program to improve efficiency, strengthen security, and enhance customer experience. Label generation is a core service USPS offers to its customers; and, as part of our label integration strategy, USPS has deployed a new API platform (USPS APIs) and package validation system (USPS Ship). The legacy Web Tools platform and the electronic verification system (eVS) are being retired and customers must migrate to the new platforms or an approved third-party vendor. Once the new API platform is integrated into your website, the APIs communicate over HTTPS using JSON (JavaScript Object Notation) and OAuth 2.0 protocols for access authorization.

Note: eVS customers must migrate to USPS Ship as a prerequisite to migrating to new platform.

▶ Web Tools label API users must migrate to the USPS Label API by July 14th, 2024.

1.1 USPS Domestic Label API

The USPS Labels API allows you to digitally create shipping labels for the following mail classes: USPS Ground Advantage™, Parcel Select® Destination Entry, USPS Connect® Local, USPS Connect® Regional, USPS Connect® Same Day, USPS Connect® Next Day, Priority Mail®, Priority Mail Express®, Bound Printed Matter, Library Mail, Media Mail®, and USPS Return Services. The USPS Label API uses a token to authorize the use of an Enterprise Payment or Permit account. The specification to generate the token is in the payments API.

The following fields are used to assure that a label is generated:

- Account Type, specify the type of payment account, either EPS or PERMIT.
- Account Number, specify the account number for either the EPS or PERMIT account (e.g. permit number).
- Permit ZIP Code[™], specify the permit ZIP Code[™] for the PERMIT account. it is not required for an EPS account.

Domestic Label API Endpoints	Description
POST https://api.usps.com/labels/v3/label	Create a domestic shipping label
POST https://api.usps.com/labels/v3/return-label	Create a domestic returns shipping label
DELETE https://api.usps.com/labels/v3/label/{trackingNumber}	Cancel a label

1.2 USPS International Label API

The USPS® International Labels API allows you to digitally create shipping labels for First Class Package International Service, Priority Mail International, Priority Mail Express International. You will need credentials necessary for the payment of labels. The following fields are used to assure that a label is generated:

- Account Type, specify the type of payment account, either EPS or PERMIT.
- Account Number, specify the account number for either the EPS or PERMIT account (e.g. permit number).
- Permit ZIP Code[™], specify the permit ZIP Code[™] for the PERMIT account. it is not required for an EPS account.

International Label API Endpoints	Description
POST https://api.usps.com/international-labels/v3/international-label	Create an international shipping label
DELETE https://api.usps.com/international-labels/v3/international-label/{trackingNumber}	Cancel an international label

1.3 USPS SCAN Form API

Shipment Confirmation Acceptance Notice (SCAN) form allows integrators to link multiple domestic and international labels through one Electronic File Number (EFN) and physical SCAN Form (PS Form 5630). The USPS® scans this form at mailing acceptance to generate an acceptance tracking event for each linked label. The default media type of the response is multipart-mixed. The metadata part of the multipart response representation is only in application/json format media type, as default.

The following fields are used to assure that a label is generated:

- Account Type, specify the type of payment account, either EPS or PERMIT.
- Account Number, specify the account number for either the EPS or PERMIT account (e.g. permit number).
- Permit ZIP Code[™], specify the permit ZIP Code[™] for the PERMIT account. it is not required for an EPS account.

Domestic Label API Endpoints	Description
POST https://api.usps.com/scan-forms/v3/scan-form	Create a SCAN Form (PS Form 5630)

2 Customer Onboarding

Onboarding new API customers onto the USPS APIs platform requires the following steps below.



Note: If Web Tools customers are looking to transition over to the new USPS APIs platform, account information will not be automatically transferred/migrated over and will require sign up for USPS APIs.

1. The customer will create a new USPS Business Account by navigating to the <u>Customer</u> Onboarding Platform and filling out the below prompts.



Note: Your <u>Customer Onboarding Platform</u> (COP) account will link to BCG automatically during setup. If Web Tools customers already have COP and Enterprise Payment Account EPA setup then they can go directly to step 3.

- 2. Create a Username and Password.
- 3. Enter User Information.
- 4. Enter Company Information.
- 5. Verify the Company Address.
- 6. The Customer is assigned a CRID.
 - a. Setup payment details (EPS account).
 - b. Setup Developer access using your COP credentials on the USPS APIs Developer Portal
 - c. Create a new App.
 - d. Subscribe to a USPS API Product.
 - e. Link CRID/MID, Client credentials (Key/Secret) to the USPS APIs account.
 - f. Customers can then test one of the sample APIs provided within the API catalog on the Developer Portal to verify the account has been setup properly and they are getting successful API responses.



Note: The default "Shipping Default" API Product will allow customer to use only the following APIs: Address API, Service Standards API, Domestic Price API and International Price API. Please refer to Appendix B for sample API collection.

7. To access other APIs, API management team to approve a separate API Product request. To get the approval customer can reach out to apisupport@usps.gov.

The following onboarding process requires the steps below to continue using the USPS APIs platform.

2.1 Payment Setup (or EPS)

This is an optional step for a customer that has initially not had a payment method added into their account and want to update their payment account details in the Business Customer Gateway (BCG).

- 1. Sign up for an EPS or Payment method for your Business Customer Gateway account.
- 2. Once you login into your BCG account, on your dashboard below select "Manage Account" to add services like Payment.



Note: You can add as many services to your account as you would like.

3 Developer Access setup via Developers Portal

Go to https://developer.usps.com to finalize Developer access using your USPS.com Customer Onboarding credentials and linking all your client credentials and payment services to your account.

- 1. Navigate to the USPS API Developer Portal at https://developer.usps.com.
- 2. Use Customer Onboarding Platform log in credentials.



Note: While all documentation is available without logging into the Developer Portal, the login credentials are required to create an App for using USPS APIs.

3.1 Developer Portal and User Application Creation

Users with a USPS business account can use the Developer Portal to register Apps, generate OAuth tokens, and access all USPS APIs.

To create/register an App, the user must be logged into the USPS APIs Developer Portal. Below are the instructions:

1. Once logged in, select "Apps" in the menu bar.

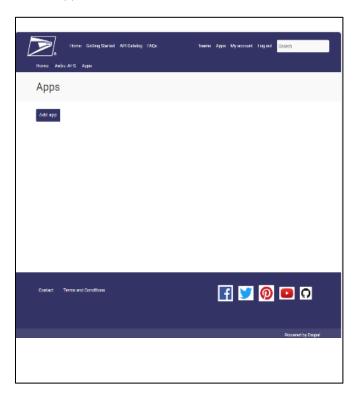


Figure 1: USPS Developer Portal Apps page

- 2. Click the "Add app" button.
- 3. Enter "App Name" for your application (required).
- 4. Enter "Callback URL" (optional).
- 5. Enter "Description" (optional).
- 6. Select the API Product available (required) Example: "Shipping Version 3".
- 7. Click "ADD APP" Button.

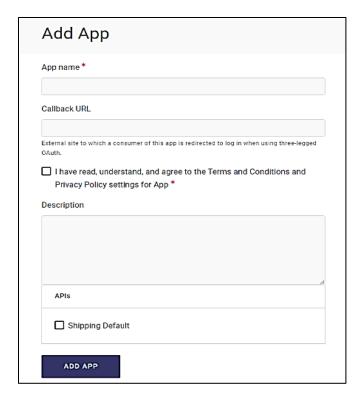


Figure 2: USPS Developer Portal Add Apps page



Note: The default "Shipping Default" API Product will allow customer to use only the following APIs: Address API, Service Standards API, Domestic Price API and International Price API.

8. To access other APIs, please send a separate API Product request to the API management team to review and approve. To get the approval customer can reach out to apisupport@usps.gov.

3.2 Retrieve your Consumer Key and Secret

The Consumer Key and Secret are required credentials used when creating the OAuth token within the customers software. The Consumer Key and Secret are what is used to gain access to the APIs.

Select the application you just registered and retrieve your Consumer Key and Consumer Secret from the credentials section. These credentials are required for generating the OAuth token.

- After creating the platform App, the user must select/click the Approved button to view credentials.
- 2. Use the provided Consumer (Client) Key and Customer (Client) Secret to create the OAuth token.
- 3. The Consumer Key uniquely identifies the client App (Username), and the Consumer Secret (Password).

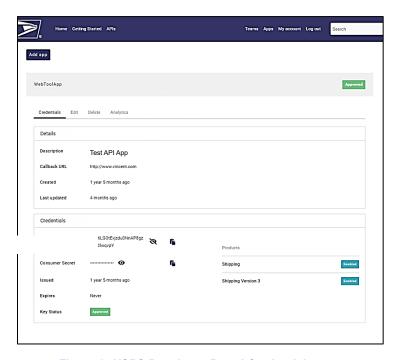


Figure 3: USPS Developer Portal Credentials page

4 Using USPS API Platform

The following the steps below for API Token, API Payment, and creating your labels in Production. If the customer wants to test the APIs, they can sign-up in CAT environment and may test label generation.

The below instructions focus on generating an OAuth Token and Payment Token for payment of both domestical and international labels. Postman is the software used to generate these tokens for demonstration purposes below.



Note: Any third-party software can be used to generate these tokens. **Postman is not mandatory.**

4.1 API Token

An OAuth Token must be generated to call all APIs. A token is a software key to authenticate the user against the API platform and authorize the user to call their approved APIs. Below are the instructions on how to generate an Oath Token:

- 1. Call the OAuth 2.0 API with grant_type = "client_credentials" and the Consumer Key and Consumer Secret in the client_id and client_secret fields respectively (See Section 3.2 on how to retrieve Consumer Key and Consumer Secret).
- 2. Retrieve values (Token_type Bearer, Expires_in, Access_token, Public Key) upon a successful transaction, indicated by status 200; any other status indicates unsuccessful transaction.
- 3. Refresh token as required by token lifespan (currently it is 8 hours).



Note: The following two APIs: Domestic OAuth and International OAuth token APIs should be called first in this order before making any API requests, not just Label API requests.

OAuth Token - Domestic:

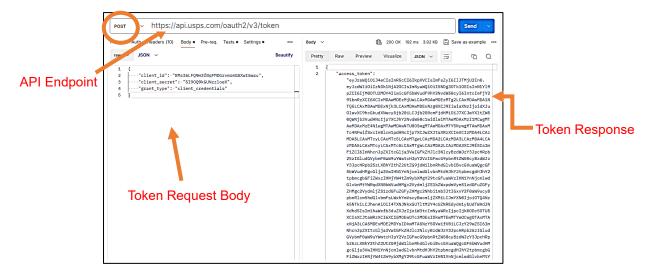


Figure 4: OAuth Token Domestic

OAuth Token - International:

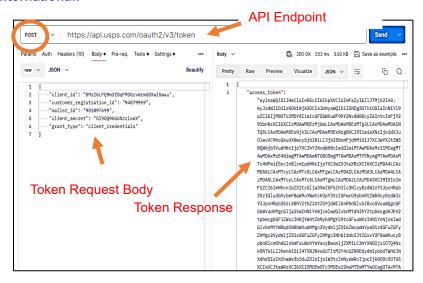


Figure 5: OAuth Token International

For additional information, refer to the OAuth API spec: https://developer.usps.com/api/81

4.2 API Payment

A Payment Authorization token must be generated to call the Labels API. A token is a software key to authenticate the user against the API platform and authorize the user to call their approved APIs. Below are the instructions on how to generate a payment authorization token for domestic and international labels (See Section 2.1 on how add Enterprise Payment Service Account).



Note: The Parties input is required to generate this token. The PAYER and the LABEL_OWNER roles are required to pay for any label transaction.

Domestic Payment API:

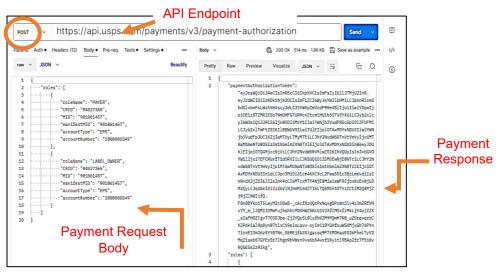


Figure 6: Domestic Payment API Example

International Payment API:

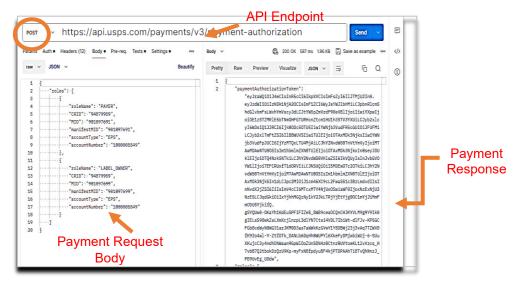


Figure 7: International Payment API Example

For additional information, refer to the Payments API specifications: https://developer.usps.com/api/83

5 Creating your Labels and SCAN Forms

To obtain labels, a customer must be enrolled in USPS Ship. To generate labels, a customer must use the Labels API and have a valid payment method.



Note: See Appendix A for USPS Ship instructions and Payment Set up section for instructions. See Appendix E for Label images and Scan forms.

- 1. To generate a label, transactions must be charged to Enterprise Payment Account (EPA)
- 2. The very first step to create a label is to get authenticated with the new API platform.
 - 2.1. Call OAuth Token request as given in Section 4.1 API Token
 - 2.2. Call Payment Authorization request as given in Section 4.2 API Payment
- Once the Token and Payment authorization are done, then subsequent Label API requests will need authenticated/authorized token in Auth Header of the API request. (Example: 'Authorization: Bearer eyJraWQiOiJ5MmRGRGY3eDdFQkF......')
- 4. For additional information, refer to the following Labels API specifications and instructions refer to Developer portal.

5.1 Creating your Domestic Labels:

For more info refer Domestic Labels: https://developer.usps.com/api/71 API Endpoint

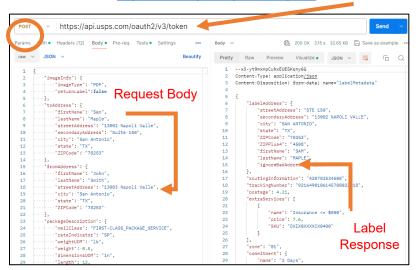


Figure 8: Domestic Label API Call Request Example



Note: To print the label from the API response, you will need to decode the Label Image.

Sample Domestic Outbound Label Image:

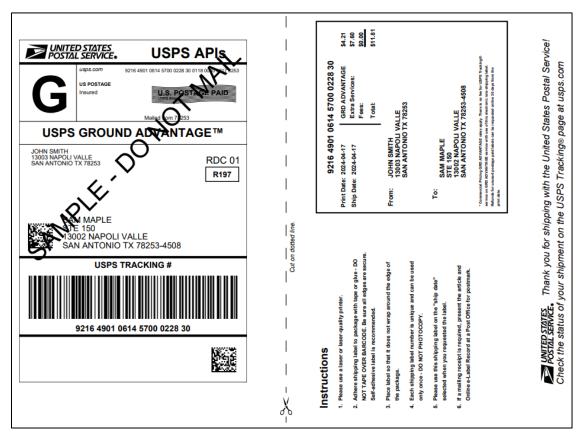


Figure 9: USPS Domestic Label 3.0 Ground Advantage Label Sample

*For all sample domestic label images (outbound/return) refer to Appendix C

5.2 Creating your International Labels:

For more info refer International Labels: https://developer.usps.com/api/75 **API Endpoint** € 201 Crea 38.85 KB 🖺 Save as Beautify Pretty Raw Preview tional-label application/json
Content-Disposition: form-data; name="labelMetadata" https://api.usps.com/international-labels/v3/international-label "labelAddress": [
"firstName": "Jay",
"lastName": "Smith",
"firm": "Tesla",
"phone": "1551-9983827",
"streetAddress": "SSS9 Ferrier St",
"secondaryAddress": "City': "Montreal",
"postalCodes": "HaPilo",
"povince": "Quebec",
"country': "Canada",
"country!SOAlphs2Code": "CA"
, "nolorormanizes: :txue";
"coadcess": {
 "firstName": "Jay",
 "lastName": "Smith",
 "firs": "Tesla",
 "phone: "15149983827",
 "streetAddress": "5580 F Request Body "streetAddress": "5850 F
"streetAddress": "",
"city": "Montreal",
"state": "CC',
"postalCode": "H4P10",
"province": "Quebec",
"country": "Canada",
"country": "Canada",
"countryTSOAlpha2Code": "CA", 'internationalTrackingNumber": "YE000404380US" "internationalTrackingNumber": "Y "postage": 37.74, "extraServices": [], "internationalPriceGroup": "81", "weightUOM": "1b", "meight": 4.9, "dimensionalWeight": "8.8", "fees": [], "SKU: "IFFPBXXXXB01648" Label Response

Figure 10: International SCAN Form API Call Request Example



Note: To print the label from the API response, you need to decode the Label image.

Sample International Outbound Custom Form Label Image:

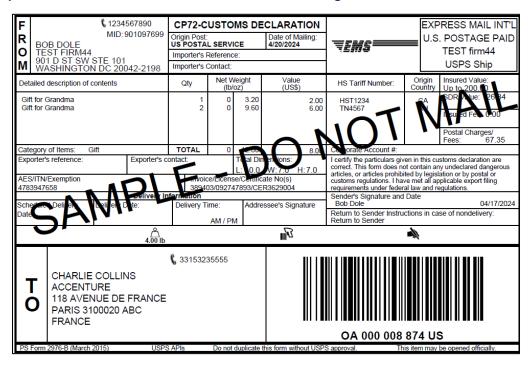


Figure 11: USPS International Label 3.0 Customs Form Label Sample

*For all sample international label images refer to Appendix C

5.3 Creating your SCAN Form Labels:

For more info refer International Labels: https://developer.usps.com/api/91 API Endpoint

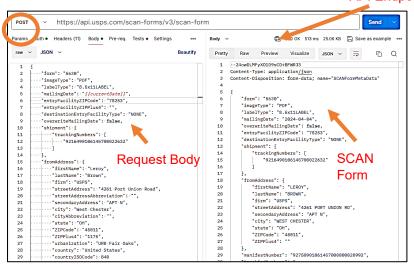


Figure 11: SCAN Form API Call Request Example



Note: To print the SCAN from the API response, you need to decode the Image.

SCAN Form image:



Figure 12: SCAN Form Sample

6 Appendix A - USPS Ship Enrollment for eVS Customers

USPS improved their manifest processing, package pricing, verification, and payment for commercial manifest shippers. USPS Ship simplifies the existing solution for manifest processing and payment. USPS Ship is a perquisite for USPS Ship Pilot, Production and Reports.



Figure 13: USPS Ship Details



Note: Migrating eVS customer to USPS Ship is a pre-requisite before using the new API platform. Follow below guidelines to get onboarded to USPS Ship using the USPS Ship Guide.

6.1 Existing Shipper Migration

Existing shippers must migrate from eVS to USPS Ship with their existing customer profiles. eVS shippers must consider all their existing credentials (Mailer IDs, Enterprise Payment Accounts, Permits, Contract/Customized Pricing) for the migration.

7 Appendix B – Useful Links

Below you will find a curated selection of useful links and resources that will provide support on how to use Postman, sample code, how to contact additional support as well as online resource guides, and lastly Tools for API migration.

7.1 Postman Collection

API specifications needed to support the use of Postman API Client tools https://github.com/USPS/api-examples.

7.2 cURL Command Samples

Sample code to call APIs from a command prompt (Windows or Unix) https://github.com/USPS/api-examples/blob/main/README.md.

7.3 Online Resources

- USPS Ship Onboarding Guide <u>USPS Ship | PostalPro</u>
- USPS API Developer Portal https://developer.usps.com
- USPS API Catalog https://developer.usps.com/apis

8 Appendix C – Sample Label Images

- 8.1 Domestic Outbound Labels (Domestic Label 3.0)
- 8.1.1 BPM Label (3.5X5):

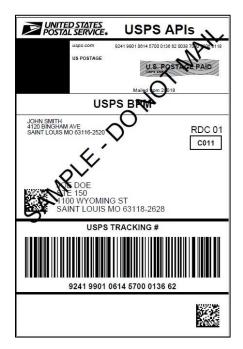


Figure 14: USPS BPM Label Sample

8.1.2 Connect Local Label (9X12):



Figure 15: USPS Connect Local Label Sample

8.1.3 Ground Advantage Label:

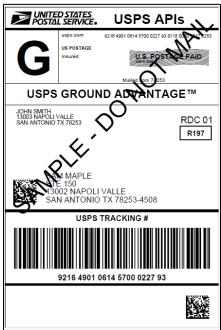


Figure 16: USPS Ground Advantage Sample Label

8.1.4 Library Mail Label:

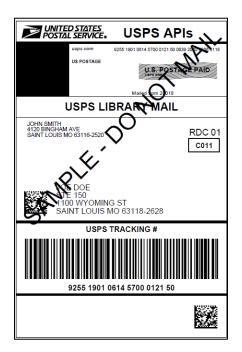


Figure 17: USPS Library Mail Label Sample

8.1.5 Media Mail Label:



Figure 18: USPS Media Mail Label Sample

8.1.6 Parcel Select Label:



Figure 19: USPS Parcel Select Label Sample

8.1.7 Priority Mail Express Label (5.75X4.5):



Figure 20: USPS Priority Mail Express Label Sample

8.1.8 Priority Mail Label (5.75X4.5):

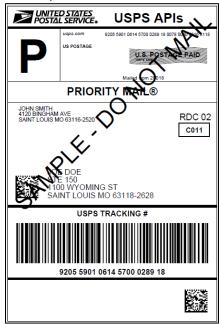


Figure 21: USPS Priority Mail Label Sample

8.1.9 Domestic Free Matter for the Blind Label (3X5):

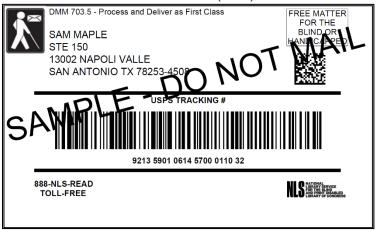


Figure 22: USPS Domestic Free Matter for the Blind Sample Label

8.1.10 Domestic Custom Form Label (10.25X7.25):

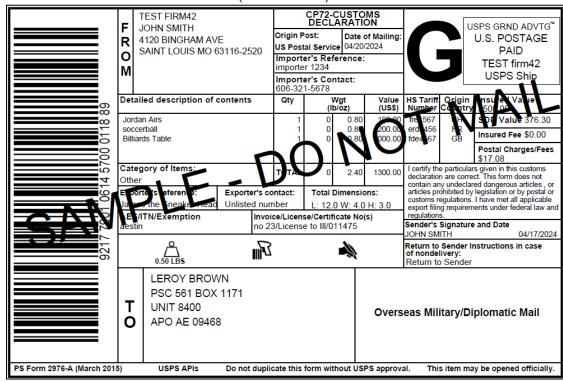


Figure 23: USPS Domestic Customs Form 2976-E Label Sample

8.1.11 Hold for Pickup Label with Receipt (4X6):

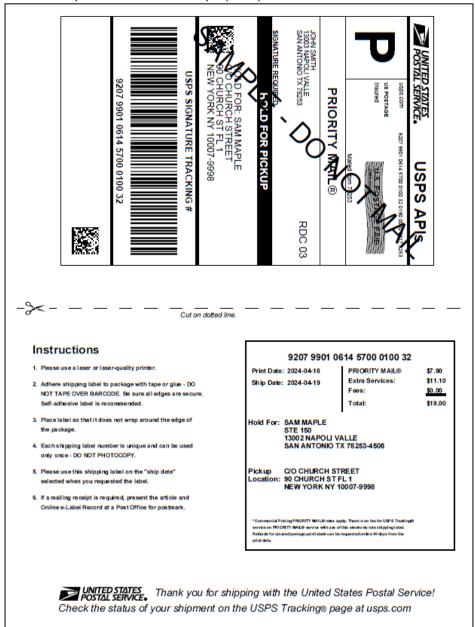


Figure 24: USPS Hold for Pickup Label Sample

8.2 Domestic Return Labels (Domestic Label 3.0):

8.2.1 Domestic Free Matter for the Blind Return Label (3X5):

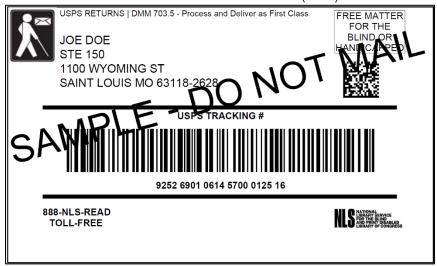


Figure 25: USPS Domestic Free Matter for the Blind Return Label Sample

8.2.2 Priority Mail Return Label (5.75X4.5):



Figure 26: USPS Priority Mail Return Label Sample

8.2.3 Priority Mail Express Return Label (5.75X4.5):



Figure 27: USPS Priority Mail Express Return Label Sample

8.2.4 Ground Advantage Return Label:



Figure 28: USPS Ground Advantage Return Label Sample

8.3 International Outbound Labels (International Labels 3.0):

8.3.1 First Class Package International Label:

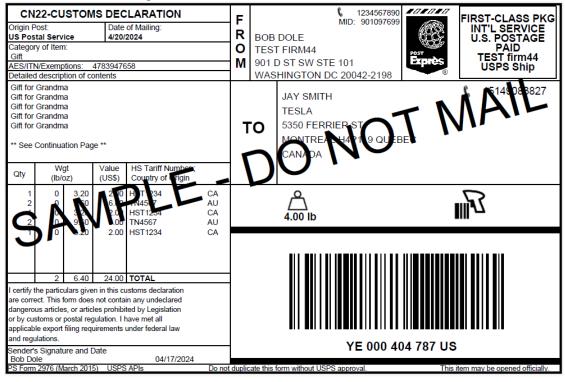


Figure 29: USPS First Class Package International Label Sample

8.3.2 Priority Mail International Label (10.25X7.25):

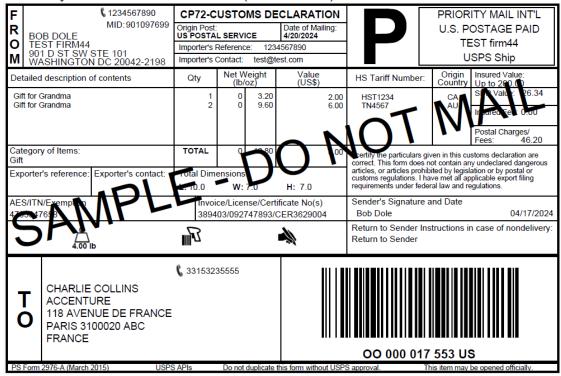


Figure 30: USPS Priority Mail International Label Sample

8.3.3 Priority Mail Express International Label:

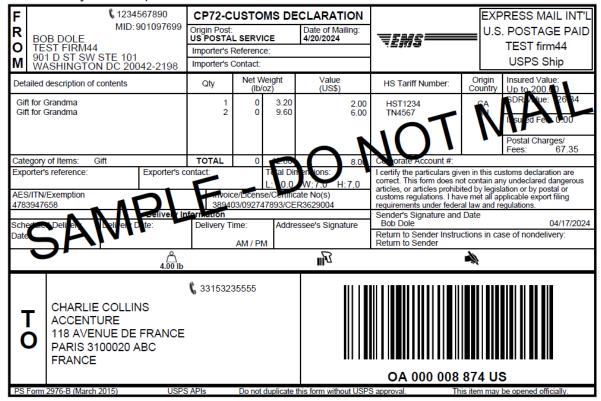


Figure 31: USPS Priority Mail Express International Label Sample

8.4 SCAN Form Label:

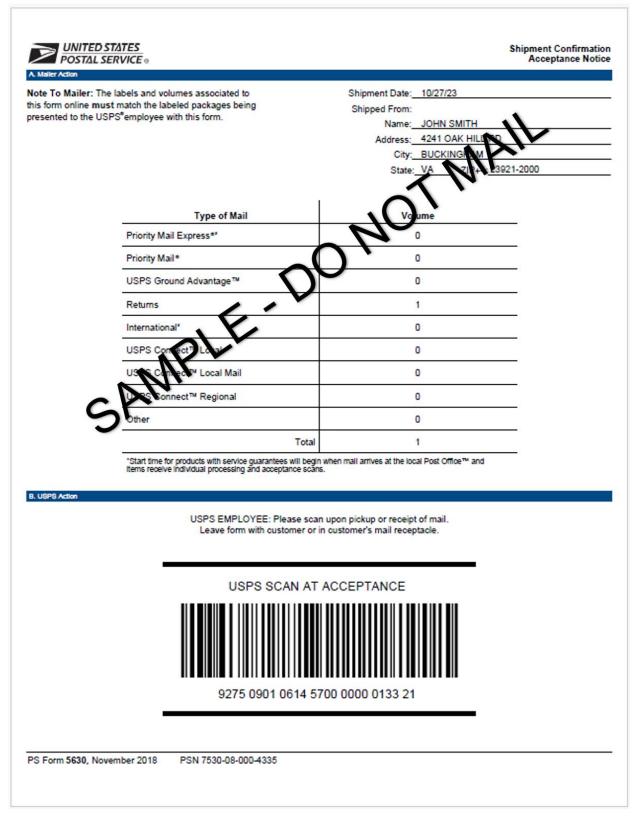


Figure 32: PS Form 5630 SCAN Form Label Sample