User Guide

UPS Developer Kit

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UPS Developer Kit User Guide

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Welcome to the UPS Developer Kit User Guide. This guide provides information on how to access developer kits and servers to test and transact with UPS. It also provides detailed information on technical support for the APIs including hours of operation and response times.

The UPS Developer Kit offers flexibility in integrating UPS functionality directly into your business systems and e-commerce websites. UPS offers 14 functionalities via APIs that allow you to improve business process efficiencies and enhance your customers' Web experience.

UPS Developer Kit page at ups.com
To access this page, go to:
https://www.ups.com/upsdeveloperkit?loc=en_US&WT.svl=SubNav

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Before you start

UPS Developer Kit

Technical considerations

Prior to downloading any APIs, you should be familiar with:

- Programming URL or socket connections
- Creating a secure socket implementation that supports Current Payment Card Industry (PCI) standards for secure connections
- Encoding and decoding XML documents
- Designing and implementing a strategy into your existing software for handling errors

Check the available versions (XML, Web Services, or JSON).

Access requirements

Review whether the particular API provides Test and Production Access with initial access key request, or if additional Production Access requests are required. You will also need to review if your business models are approved for use with each API.

Notes:

- *Custom code, that adapts your application's business logic and data to the API, must be developed in order to integrate API functionality into your e-commerce and/or business system applications. Programming language that supports HTTP communication across Internet socket and secure connections, such as Java, Visual Basic or C++ can be used.*

- *To help you effectively integrate APIs, this user guide provides instructions on how to download developer kits at ups.com as well as request access to APIs. The developer kit includes an introduction to all APIs as well as a developer guide (with technical FAQs).*

Implementation

UPS Developer Kit

Getting started

To access the UPS Developer Kit on *ups.com* type in **Search** the following text, "Developer Resources". Select the **Developer Resource Center** link. Once at the Developer Resource Center scroll down to Step 3 and select **Access the UPS Developer Kit**. You will land on the application page that will allow you to download developer kits and request access to UPS APIs.
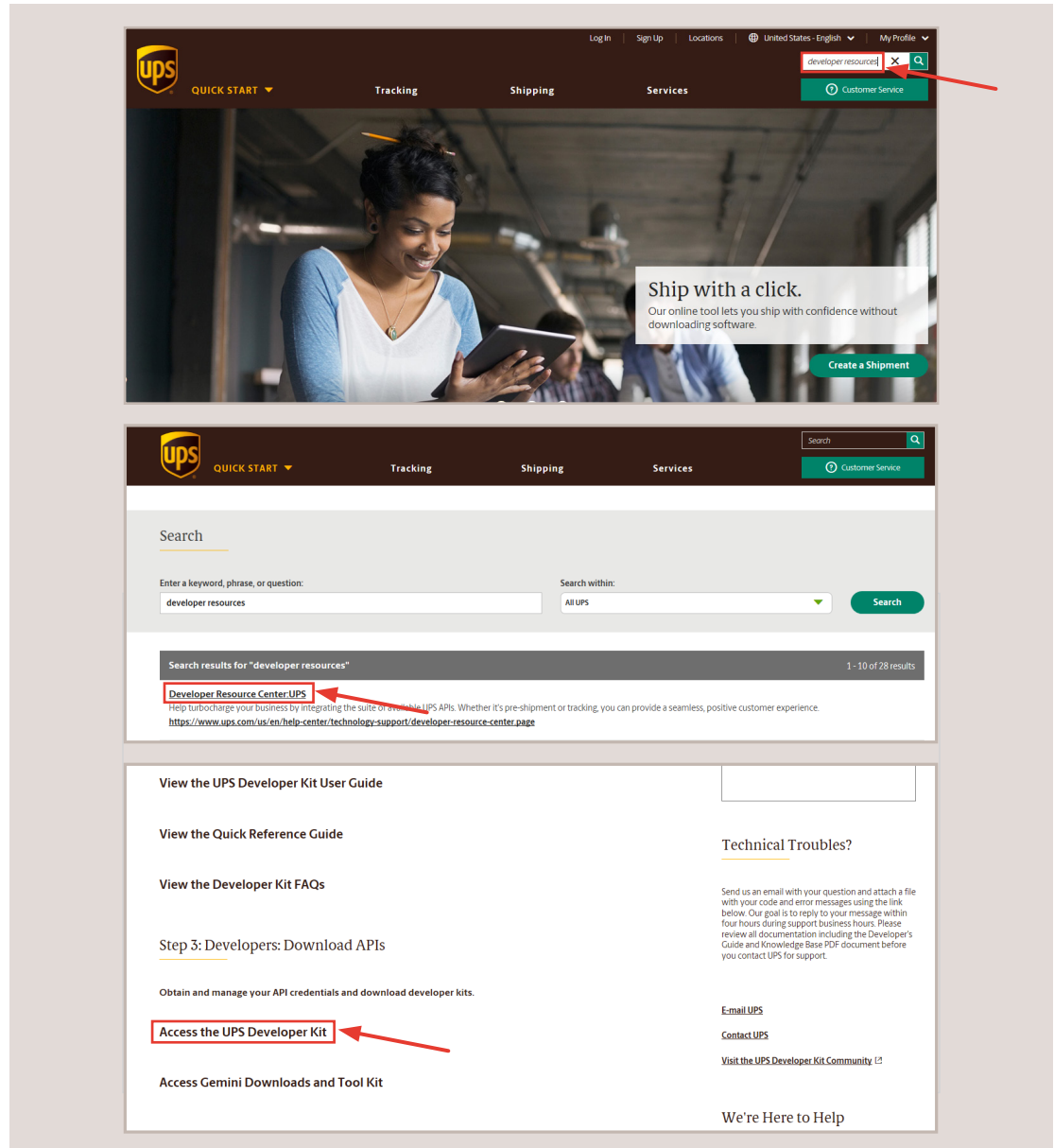
Getting started (cont.)

Step 1: Sign up for ups.com profile.
> If already signed up, skip to Step 3.

Step 2: Log In
> Enter **username**. Click **Next**. You will then be prompted to enter password. You must be logged in to download document files.
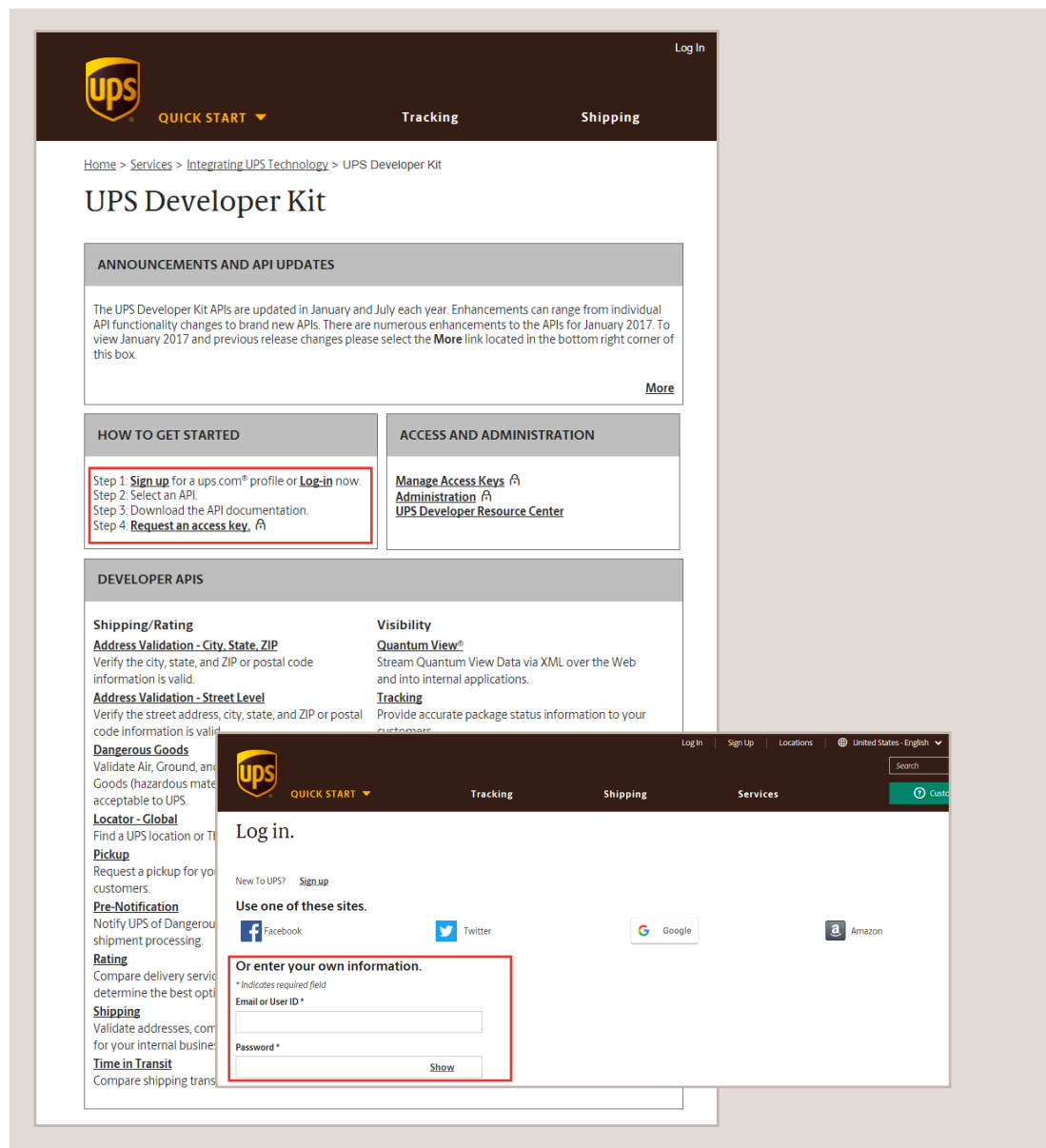
Getting started (cont.)

Step 3: Select an API

Under **Developer APIs**, you will find the requirements for each of the APIs you require and can access downloadable files as well as availability for specific countries. You may also consult the Product Overview section of this guide starting on page 21.

Getting started (cont.)

Step 4: Download the API documentation

1. Download zip file for the chosen **API**
2. When prompted, click on **Save**
3. Extract file on local computer

The downloaded file contains the Software Developer Kit. Carefully review the entire Developer Guide for the APIs you will integrate. The Software Developer Kit also includes sample code and WSDLs.

UPS Developer Kit

Shipping

The Shipping API allows applications to access the following UPS shipping services:
- Package
- Less-than-Truckload (LTL)

The Shipping API allows you to prepare and schedule package or freight shipments for delivery locally or internationally, manage returns, and cancel previously scheduled shipments.
Prior to downloading this API you should be familiar with:
- Programming URL or socket connections
- Encoding and decoding XML documents
- Designing and implementing a strategy into your existing software for handling errors

Available version(s): XML, Web Service, JSON
Available mode(s): Package, LTL or Freight
Custom code that adapts your application's business logic and data to the API must be developed in order to integrate this API's functionality into your e-commerce applications.
To help you effectively integrate Shipping, the following guide and reference materials are included with the API:
- Developer's Guide (with technical FAQs)
- UPS logos and banners
- Code samples:
- DOTNET in C#
- Java
- Perl
- PHP
- XML

Download the API
Warning: Shipping XML and Web Services provides access to Package, and Ground Freight. Test Access is provided upon request within the UPS Developer Kit home page. Production access must be approved for appropriate business models for Ground Freight. DO NOT start development or commit development resources until you thoroughly review the Package, and Ground Freight developer guides and their respective approval requirements to gain production access.

Shipping.zip
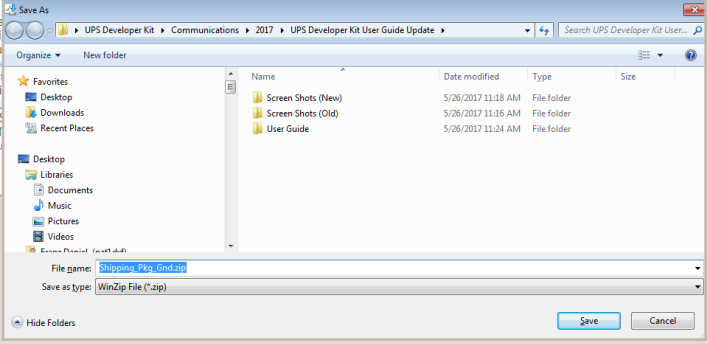
Shipping API
Frequently Asked Questions
➔ What are APIs?
➔ What is the Knowledge Base within the Developer Resource Center?
➔ What if I don't have the Technical Expertise required to use the APIs?
➔ Can UPS refer me to companies that integrate Application Programming Interfaces for businesses?

Availability

(108 countries) Algeria, Angola, Argentina, Bermuda, Bolivia, Brazil, Bulgaria, Burundi, Croatia, Czech Republic, Denmark, Djibou Ethiopia, Finland, France, Germany, Ghan Indonesia, Ireland, Israel, Italy, Ivory Coas Macau, Malawi, Malaysia, Mauritius, Mexi Norway, Oman, Pakistan, Panama, Paragu Rwanda, Saudi Arabia, Serbia, Singapore, Switzerland, Taiwan, Tanzania, Thailand, T States, Uruguay, US Virgin Islands, Venezu

Back to UPS Developer Kit

Getting started (cont.)

UPS provides a testing environment that is accessible with an Access Key for all APIs. This will allow you to simulate request and response messaging to ensure you have properly formatted your XML or Web Service requests.

Most APIs provide immediate access to both test and production environments. However, there may be certain APIs that require a second request to activate production access. Please reference the web page and e-mail notification that display what APIs may require a second production access request.

Step 5: Request an access key

> Once you have reviewed the Software Developer Kit, you should request access to the UPS test environment. You will be asked to:
> 1. Provide account information
> 2. Authenticate account information
> 3. Upon authentication, you will receive confirmation that your request has been received

Getting started (cont.)

Step 5: Request an access key (cont.)
Submit account information.

UPS Developer Kit

Request Access Key

Please enter your contact and account information and select **Request Access Key** to continue. Required fields are indicated with ⭑.

PRIMARY CONTACT INFORMATION:	Edit

Editing your information updates your default profile information.
UPS Customer 1
John Doe
123 Main Street
Customer Service
Alpharetta, GA 30005
USA
5555555555

email@sample.com

SECONDARY CONTACT INFORMATION

Please enter contact information for an additional contact within the company for which you are integrating the UPS APIs.

Company or Name:

Test 1

Telephone:

5555555555

E-mail:

email@sample.com

ADDITIONAL REGISTRATION INFORMATION:

UPS Account:

XXX000 - XXXX Test   ⭑   → Add a UPS Account

Request Access Key

Back to UPS Developer Kit

Add an existing account.

Add an existing account to your profile.

We need to verify your information to make sure no one fraudulently uses your payment account.

* Indicates required field

Payment Account Type

◉ Documents and Packages

○ Air Freight

Account Number *

Nickname *

Country *

United States

Postal Code for Pickup Address *

☐ Make this my default payment method.

Cancel   Next

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Getting started (cont.)

Step 5: Request an access key (cont.)
1. Provide account authentication
2. Once authentication is completed, you will be brought back to the **Request Access Key** page
3. Click on the **Request Access Key** button at the bottom

Note: Account Invoice Authentication (AIA) is required for you to see your negotiated rates via the Shipping and Rating APIs. Ensure you have a copy of one of your most three recent invoices to AIA authenticate.

Confirm your account information. ✕

Use a delivery invoices from the last 90 days—or an international shipping invoice from the last 45 days—to find this information and continue.

* Indicates required field

Account Number
XXXXXX

Country
United States

Invoice Number *

XXXXXXXXXXXXX ✓

Invoice Date *

06/17/2017 ✓

Amount Due *

328.90 ✓

Control ID *

XXXX ✓

[Cancel] [Save]

Getting started (cont.)

Step 5: Request an access key (cont.)
    View confirmation that your request was
    received and receive a confirmation e-mail.

Access and administration

Requesting production access

Most APIs provide immediate access to both test and production environments. However, there may be certain APIs that require a second request to activate production access. Please reference the web page and e-mail notification that display what APIs may require a second production access request.

Ensure that your implementation meets UPS requirements for gaining production access.

- Go the **UPS Developer Kit** page and select **Manage Access Keys** in the **Access and Administration** section.
- A dialog window will appear requesting that you review requirements for approval. Click **Continue** if ready to proceed.

Access and administration (cont.)

Requesting production access (cont.)

Choose one or more APIs and select **Next** to continue.

If you currently have production access for all APIs you will get this screen.

Access and administration (cont.)

Requesting production access (cont.)

• Receive online and e-mail confirmation of your request for production access.

Access and administration (cont.)

View/update access keys

To manage and update access keys, go to the **UPS Developer Kit** page and select **Manage Access Keys** in the **Access and Administration** section.

Access and administration (cont.)

View/update access keys (cont.)

- Enter your Access Key in the **View/Update Access Key** section.

- The next screen will display a list of APIs with the status (Test or Production) for the key you entered.

Note: From that page, you can also request production access or a new Access Key.

Access and administration (cont.)

Edit account/contact information

To update primary and secondary contact information, as well as account information, go the **UPS Developer Kit** page and select **Administration** in the **Access and Administration** section.

Access and administration (cont.)

Edit account/contact information (cont.)

Contact information will be displayed. Select **Edit** to make changes.

Note: *It is very important for specific e-mail notifications regarding changes to UPS certificates and other major changes that the contact information is current. Also, if you used an integrator it is important that the contact information is changed to your company IT contact so they receive the important notifications.*

A new screen will appear for you to make changes. Click **Save Changes** once finished.
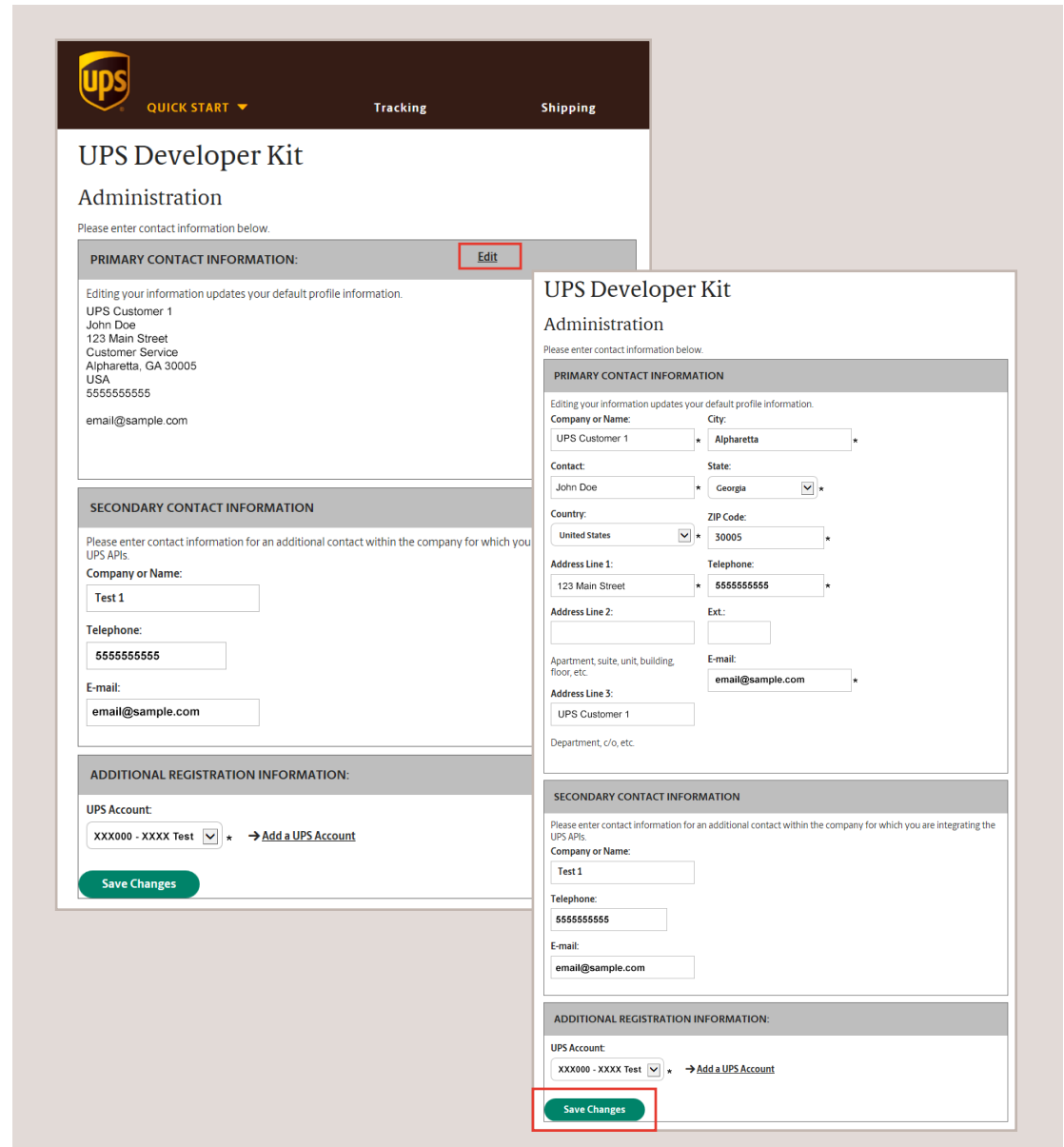
Product overview

UPS Developer Kit

Shipping and rating business processes

Address Validation API

Whether integrated into a Web page or a non-Web order system, the *Address Validation API* allows merchants to compare city-state-ZIP combinations provided by buyers with those maintained on UPS's central computers (servers). If the combination is not valid, UPS returns a list of possible city-state-ZIP combinations to the merchant's application. UPS provides up to ten alternate addresses.

Approved business models

- Validation of addresses for shipments tendered to UPS for delivery

Unapproved business models/usages

- "Scrubbing" address databases
- Validation of addresses for any uses other than UPS shipping

Available countries:	U.S. and Puerto Rico for all modes of transport
Available version(s):	XML and JSON
Available mode(s):	All modes
Access requirements:	One request for Test & Production access

API limitations

- Only validates U.S. and Puerto Rico addresses
- No latitude longitude coordinates provided in the API response
- Only validates city-state-ZIP combination — not street address
- Only validates one city, state, ZIP combination per request
- UPS address database updated monthly with information provided by the USPS
- NOT a CASS certified validation engine
- Does not replace requirement for CASS AV software

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Shipping and rating business processes (cont.)

Address Validation Street Level API

Whether integrated into a Web page or a non-Web order system, the *Address Validation Street Level (AVSL) API* allows merchants to compare street-city-state-ZIP combinations provided by buyers with those maintained on UPS's central computers (servers). If the combination is not valid, UPS returns a list of possible street-city-state-ZIP combinations to the merchant's application. UPS returns up to ten alternate addresses.

Additionally, the *AVSL API* classifies addresses commercial/residential for a number of countries please check the developer guide for a current listing (classification is UPS internal operations classification not based upon USPS information).

Approved business models
- Validation of addresses for shipments tendered to and delivered by UPS

Unapproved business models/usages
- "Scrubbing" address databases
- Validation of addresses for any use other than UPS shipping

Available countries:	U.S. and Puerto Rico for all modes of transport
Available version(s):	XML, Web Service and JSON
Available mode(s):	All modes
Access requirements:	One request for Test & Production access

API limitations
- Only validates U.S. and Puerto Rico addresses
- Only classifies (commercial/residential) U.S. and Canadian addresses
- Only validates one street, city, state, ZIP combination per request
- Only validates apartment or suite if an apartment or suite is provided within the API Request or if the apartment or suite are in the UPS database
- No latitude longitude coordinates provided in the API response
- UPS address database updated monthly with information provided by the USPS
- NOT a CASS certified application
- Does not replace requirement for CASS AV software

Shipping and rating business processes (cont.)

Dangerous Goods API

The Dangerous Goods API allows applications to validate dangerous goods shipments prior to shipping. The Dangerous Goods API verifies that dangerous goods shipments meet regulation set requirements as well as ensuring they are valid for carriage within the UPS transportation network.

Dangerous Goods validation and shipping require a UPS Contract so please check with your UPS Sales Person for available Dangerous Goods services prior to downloading the developer kit.

Functionality includes:
– Acceptance Audit Pre-check validates a Dangerous Goods shipment is acceptable to UPS. Validations include origin/destination country and postal code, UPS service, regulation set, transportation mode, and chemical record details (quantity, packing group, packing instruction, etc.).
– Chemical Reference Data Lookup retrieves Dangerous Goods chemical record details (i.e. allowable packing groups, packing instructions, etc.) based upon UN number or Proper Shipping Name. This functionality complements the Acceptance Audit Pre-check.

Regulation sets supported include:
– European Agreement Concerning the International Carriage of Dangerous Goods by Road (ADR)
– International Air Transport Association (IATA)

Available in 31 countries for Small Package only
Available version(s):   Web Service and JSON
Available mode(s):   Package
Access requirements: One request for Test & Production access

– United States – Code of Federal Regulations, Title 49 (49CFR)

This API works in conjunction with the Rating and Shipping API or other manifesting systems.

Approved business models

Validating UPS Fully Regulated Dangerous Goods shipments (validates origin/destination and chemical details)

Validating UPS Dry Ice, International Special Commodities – Biological Substances Category B, and/or Lightly Regulated Lithium Batteries shipments (origin/destination validation only)
• Use with manifesting systems that currently do not have hazmat validation. Can be used in conjunction with Shipping and Rating APIs to process UPS Small Package shipments.

Unapproved business models/usages
• Validating shipments not intended for transport by UPS (Please note, the Dangerous Goods API is to be used for UPS shipments only.)

API limitations
• Geographic validation updated monthly
• Dangerous Goods chemical validation updated quarterly

Available Countries
• See available countries at ups.com Approved Countries List *(https://www.ups.com/assets/resources/media/dangerous-goods-service-areas.pdf)*

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Shipping and rating business processes (cont.)

Locator API

The *Locator API* enables users to find local UPS service locations using an address or phone number. The *Locator API* provides UPS full-service and self-service locations, hours of operation and pickup times. The *Locator API* can be customized to present information in different configurations that include locations, additional services, program types, type codes and if a location is a retail location. In addition, the *Locator* provides an interactive map that displays up to ten UPS locations and turn-by-turn driving directions (where available).

Find locations such as:
- UPS Access Point®
- The UPS Store®
- Mail Boxes Etc.®
- UPS Drop Boxes
- UPS Customer Centers
- UPS Express®
- Retail Chains
- UPS Authorized Shipping Outlet (ASO)
- UPS Authorized Service Providers

Available in 28 countries for Small Package only

Available version(s):	XML and JSON
Available mode(s):	Package
Access requirements:	One request for Test & Production access

Approved business models
- Use on merchant websites and non-Web, back-end systems

Unapproved business models/usages
- Use by third-party logistics providers

API limitations
- Latitude longitude coordinates are not provided
- Maps are not provided

Shipping and rating business processes (cont.)

Pickup API

The *Pickup API* enables users to schedule a UPS pickup from their home or office. Users may also schedule the pickup of a previously processed package, freight shipment or new shipment. Additionally, UPS's environmentally friendly pickup options are available with the small package *Pickup API*.

Approved business models

• Use on merchant websites and non-Web, back-end systems

Unapproved business models/usages

• Third-party hosting of pickup requests
• Use by third-party logistics providers

API limitations

• None

Available in 39 countries for Package and LTL Freight (Gemini for Air Freight)

Available version(s):   XML, Web Service and JSON

Available mode(s):   Package and LTL Freight (Gemini for Air Freight)

Access requirements: One request for Pickup API Small Package for Test & Production access, two separate requests for Pickup API Ground Freight for Test & Production access

Shipping and rating business processes (cont.)

Pre-Notification API

The Pre-Notification API allows customer applications to inform UPS operations of dangerous goods shipments that have been processed and will enter the UPS transportation network prior to an upload of manifest information at the end of the day. This will assist in improved handling and fewer delays for dangerous goods shipments. The Pre-Notification API can be used in conjunction with other APIs after a dangerous goods shipment has been processed.

Finally, the use of this API will be required for customers who have a dangerous goods contract and are shipping cargo quantities of dangerous goods or are shipping dangerous goods via road transport in Europe (European Agreement Concerning the International Carriage of Dangerous Goods by Road or ADR).

Functionality includes:

- Notify UPS of dangerous goods shipments once the shipment is processed.
- Notify UPS of voided dangerous goods shipments.

In addition, custom code that adapts your application's business logic and data to the API must be developed in order to integrate this API's functionality into your business systems.

Available in 31 countries for Small Package

Available version(s):	Web Service and JSON
Available mode(s):	Package
Access requirements:	One request for Test & Production access

Approved business models

- Use with manifesting systems to notify UPS of processed Fully Regulated Dangerous Goods shipments

Unapproved business models/usages

- None

API limitations

- None

Shipping and rating business processes (cont.)

Rating API

The *Rating API* provides rates (daily pickup, on-demand, or retail) for available UPS small package and UPS® Freight LTL service levels to any destination served by UPS. The *Rating API* can be configured to present all rates available ("Shop" option) or rates for specific service levels ("Rate" option). Published rates are provided by default; account-specific negotiated rates can be enabled by **Account Invoice Authentication** in the **Account Summary** or **Account Maintenance** pages at **ups.com**. Please see page 11 of this guide for further details. The *Rating API* provides delivery date and time for all services except Ground (the *Time-in-Transit API* must be used for this information).

Approved business models

• Use on merchant websites and non-Web, back-end systems

Unapproved business models/usages

• Display of UPS rates side by side with competitor rates

Rating API supports hazmat rating.

Available in 103 countries for Small Package, 4 countries for LTL Freight and 36 countries for Air Freight (Gemini APIs)

Available version(s):   XML, Web Service and JSON (see notes)

Available mode(s):   Package, LTL Freight [1], Air Freight [2]

Access requirements: Two separate requests for Test & Production access for LTL Freight and manual request for Air Freight via the Gemini APIs request form (see links at UPS Developer Kit at **ups.com**)

Notes:
(1) Web Service only for LTL Freight
(2) Air Freight through Gemini APIs XML only

API limitations

• Rating for *Air Freight* requires use of the *Gemini APIs*. Please see the UPS Developer Kit home page as well as the Announcements and API Updates section for a link to the *Gemini APIs* request form and developer guide. Please read the request form thoroughly for gaining access to this API.

Shipping and rating business processes (cont.)

Shipping API

The *Shipping API* supports the integration of UPS's shipping functionality across enterprise systems and websites. Integration allows for use of data from the shipper's applications without requiring key-entry by the user while supporting internal processes with convenient and controlled access to shipping. The *Shipping API* also supports the entire small package UPS Returns® portfolio, including international returns. UPS residential/commercial address classification and city, state and ZIP validation are also provided. Integration of the *UPS Shipping API* requires significant programming time and expertise.

How the Shipping API works

The process consists of two phases: the **Ship Confirm** phase followed by the **Ship Accept** phase. An XML request/response pair is exchanged between the client and server in each phase. Please note that cancelling or voiding a shipment requires its own procedure and message types.

Approved business models

- Use on merchant (UPS Ready® Provider) websites and non-Web, back-end systems

- When integrated on a website with controls for access

- Use by third-party application vendors strictly controlled through the UPS Ready program

Available in 103 countries for Small Package, 4 countries for LTL Freight and 36 countries for Air Freight (Gemini APIs)

Available version(s):	XML and Web Services (see notes)
Available mode(s):	Package, LTL Freight [1], Air Freight [2]
Access requirements:	Two separate requests for Test & Production access for LTL Freight and manual request for Air Freight via the Gemini APIs request form (see links at UPS Developer Kit at **ups.com**)

Notes:
(1) Web Service and JSON for LTL Freight
(2) Air Freight through Gemini APIs XML only

Shipping API supports hazmat shipping.

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Shipping and rating
business processes (cont.)

Shipping API (cont.)

Unapproved business models/usages

• Display of UPS rates side by side with competitor rates

• No side-by-side comparisons with competitors on external or Web-based implementations

• No hosting of *Shipping API* on any website

API limitations

• Not supported: *World Ease*® functions, Batch Processing and *UPS Hundredweight Service*® aggregation

Shipping API supports hazmat shipping.

Shipping and rating business processes (cont.)

Time-in-Transit API

The *Time-in-Transit API* lets users compare the speed of delivery of different services so they can select the service most appropriate for a shipment. This API provides access to all available UPS shipping services for anywhere UPS delivers around the world. The information includes the scheduled delivery date and time as well as the number of days in transit. Provides date and time of delivery for ground packages which take into account UPS holidays and weekends.

Approved business models

• Use on merchant websites and non-Web, back-end systems

Unapproved business models/usages

• Use by third-party information logistics providers who are not a party to the transaction

• For creating Time-in-Transit tables from UPS proprietary information

API limitations

• None

Available in 103 countries for Small Package only

Available version(s):   XML, Web Service and JSON

Available mode(s):   Package

Access requirements: One request for Test & Production access for UPS approved business models

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Visibility business processes

Quantum View® API

Quantum View® Data provides comprehensive tracking information that can be seamlessly integrated into in-house applications, from spreadsheets and simple databases to ERP systems.

Shipment status updates can be automatically downloaded to internal system, as frequently as every hour if needed, in a number of common data file formats (CSV, XML, TXT or EDI ANSI or EDI EDIFACT).

• Outbound

• Inbound

• Third-party – Current information on shipments billed to a UPS account via Freight Collect, third-party or Consignee Billing.

Understanding XML Quantum View services

Quantum View information is presented as "events". With this API, your application can automatically retrieve Quantum View events and integrate the information into your systems' processes.

Available in 31 countries for Small Package only	
Available version(s):	XML and JSON
Available mode(s):	Package
Access requirements:	One request for Test & Production access

Subscriptions
This feature gives you a way to indicate which types of Quantum View events you wish to retrieve. You can set up subscriptions for outbound shipments, inbound shipments and shipments using alternate billing. These subscriptions can include manifest, origin, delivery and exception activity. Quantum View subscriptions are created by you through **ups.com**. Managing the type of information you receive and the type of subscription is all completed at **ups.com**. To activate your subscription you must contact your sales representative.

Bookmarks
For users with high volume of activity and to ease the burden on network resources, the *Quantum View API* may limit the amount of information returned for any single request. This limit is approximately 150KB for multiple combined files or 500KB for a single file. For files exceeding the limit, UPS returns part of the information and appends a special bookmark element to the response. To retrieve the additional information, re-issue the original request with the bookmark element added.

Visibility business processes (cont.)

Quantum View API (cont.)

Information format
When your application requests Quantum View events, the API returns only events that have not been viewed before. File name and date/time requests are the only exceptions to this rule.

Approved business models

• Use on merchant websites and non-Web, back-end systems

Unapproved business models/usages

• Use by third-party logistics providers

API limitations

• Updates are batch and limited to every 30 minutes with updates

• Files must be appended to existing data, in that only what has changed is included in the hourly file updates

• Only Manifest, Exception and Delivery scans are provided within the files. No intermediate scans (in transit scans)

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Visibility business processes (cont.)

Tracking API

The *Tracking API* provides transparency in allowing customers to track their shipments from an e-commerce site using a reference or order number. Customers can find specific details about their shipment's status, including the time and location of each scan as the package moves toward its final destination. Additionally, tracking information can blend seamlessly with the look of your site.

Approved business models

• Use on merchant websites and non-Web, back-end systems

Unapproved business models/usages

• Use by third-party information logistics providers who are not a party to the transaction

• Use by "robots" that track every outbound package until a specified event

Available in 103 countries for all transport modes

Available version(s):	XML, Web Service and JSON
Available mode(s):	All modes
Access requirements:	One request for Test & Production access

API limitations

• Limit of 64KB per response regardless of the size of a shipment

• Shipments with 50 packages may only return the first 15 packages dependent upon how much tracking information is available on the packages

• Transactional not batch and no batch upload of tracking numbers

• The API only tracks a single tracking or reference number with each tracking request

• Package scans and weight information is available for six months

• Reference number tracking is available for four months

• Delivery scan information is available for 18 months

Visibility business processes (cont.)

UPS Signature Tracking® API

The *UPS Signature Tracking API* provides the same information as the *Tracking API* plus:

- Receiver's name and address
- C.O.D. collected amount
- Proof of Delivery (POD) signature image

Merchants can integrate a POD letter image into their systems to automatically e-mail, mail or fax a POD letter to buyers proactively or in response to non-payment or requests for POD. Since the POD letter includes the receiver's signature (when collected), this solution can meet the demands of buyers not satisfied with the "clarified" (typed by UPS driver service provider) signature information provided by the standard *Tracking API.*

Note: Processing requests requires that the account number is included. Tracking numbers generated by other accounts will not work unless those accounts are added to the My UPS ID Account Summary for the My UPS ID used in the XML Request.

Available in 45 countries for Small Package only

Available version(s):	XML, Web Service and JSON
Available mode(s):	Package only
Access requirements:	One request for Test & Production access for UPS approved business models

Approved business models

- Use on merchant websites and non-Web, back-end systems

Unapproved business models/usages

- Use by third-party information logistics providers who are not a party to the transaction
- Use by "robots" that track every outbound package until a specified event

API limitations

- Same as *Tracking API*
- Additional limitation of storage of signatures for 18 months

International trade business processes

Paperless Document API

Paperless Document API provides you the ability to upload your document images in conjunction with your shipments. This eliminates the need to attach paper shipping documents to the package and the associated issues of processing delays. This API is used in conjunction with other manifesting systems as well as the *Shipping API*. This capability essentially eliminates the hassle of lost or damaged paperwork and allows for seamless and automated linking of shipments and the document images required for processing.

*Note: You must have a valid six-digit account number and be enabled by your UPS Account Manager for your account within the UPS back-end systems to use the **Upload My Forms** at **ups.com** or the **Paperless Document API**. If the shipper number is not enabled within back-end systems for the Upload Forms, the Paperless Document API will throw a hard error.*

Available in 68 countries for Small Package

Available version(s):	Web Service and JSON
Available mode(s):	Small Package
Access requirements:	Single request for Test & Production access for UPS approved business models

Understanding Paperless Document API processing

- The *Paperless Document API* Web Service consists of three operations:

  1. Upload documents to Forms History (See API Limitations on page 34).

  2. Delete uploaded documents (one document ID per delete request).

  3. Push uploaded documents to Image Repository.

Note: You will need to build input screens that collect information needed by the application to initiate upload, delete and push requests for document images created.

International trade business processes (cont.)

Paperless Document API (cont.)

There are two options when you use the *Paperless Document API* with the *Shipping API* or other manifesting systems.

Option 1:

Step 1: Go to *Paperless Document API* and complete an Upload Request. Upload your documents to Forms History and receive a Document ID.

Step 2: Go to *Shipping API* and submit a request to create a domestic or international shipment with the Document ID from Step 1. *Shipping API* will internally push the documents to a Forms Repository and return Forms Group ID in response back.

Option 2:

Step 1: Go to *Paperless Document API* and complete an Upload Request. Upload your documents to Forms History and receive a Document ID.

Step 2: Go to *Shipping API* and submit a request to create a domestic or international shipment. You will receive a Shipment Identification number and Tracking Number(s).

Step 3: Go to *Paperless Document API* and provide the Document ID from Step 1 along with the Shipment Identification number and Tracking Number(s) from Step 2. Complete a Push To Image Repository Request, which will push the documents to Forms Repository which will return a Forms Group ID back to you.

Approved business models

• Use with shipments that require documentation within internal business processes or other back-end systems. This is not for hosting on the Web.

Unapproved business models/usages

• Use by third-party logistics providers

API limitations

• The API is capable of handling multiple files and multiple documents in each file.
  – Maximum allowable size for each file is 1MB with a total maximum allowable size limit for all files of 5MB.
  – Maximum of 13 files are allowed per request with no more than 13 documents in each file or in total per shipment

• There are two steps to each document image.
  Step 1: Upload the image.
  Step 2: Submit the image either through the *Shipping API* or the *Paperless Document API*.

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International trade business processes (cont.)

UPS TradeAbility® API

UPS TradeAbility suite of information-based services enables the effective management of the movement of goods across international borders. The *UPS TradeAbility APIs* can help improve regulatory compliance, reduce operating expenses, and streamline global supply chains and international trade processes.

- **Landed Cost API**
  Estimates the cost of international shipments: including duties, customs fees and taxes. Preferential duty rates may be included in Landed Cost estimates by default. For these rates to be applied when shipping, shipper must submit proper documentation along with the shipment. Allows transactions containing up to 99 products per shipment from one origin country to one destination country. To provide the most accurate estimate of landed cost, the service may refine its estimate through a series of interactive queries and responses using the **QueryRequest** element. User re-issues the request and includes answers using **EstimateRequest** elements. Once UPS has received all the information needed, a landed cost estimate will be provided.

Available in 34 countries for Small Package

Available version(s):	Web Service and JSON
Available mode(s):	Package
Access requirements:	Single request for Test & Production access for UPS approved business models

- **Denied Party Screener API**
  From one source, determines who is on the U.S. government watch lists, ensuring current and accurate compliance with government regulations. Allows single transactions and the selection of different match settings to allow broader searches and checks a single source for named parties and destination countries, plus it provides specific reasons for denial and list sources.

- **Import Compliance API**
  Helps reduce border delays by maximizing compliance with country-specific trade relations, procedures and restrictions before importing. Import Compliance transaction details will be stored and can be accessed for 90 days. Allows transactions containing up to 99 products per shipment from one origin country to one destination country.

- **Export License Detector API**
  Accesses the latest U.S. export license requirements based on destination country or commodity information such as Export Classification Number, to help reduce the risk of fines and sanctions.

International trade business processes (cont.)

UPS TradeAbility APIs (cont.)

Approved business models

• Approved for End Users and UPS Ready® Providers

Unapproved business models/usages

• No hosting of *UPS TradeAbility API*s by unapproved third parties

API limitations

• No Harmonized Code lookup functionality

UPS Developer Resource Center

UPS Developer Kit

Accessing resources and technical support

You can access the Developer Resource Center by following these steps:

Step 1: Type in search engine or on ups.com search **UPS Developer Resource Center**.

Step 2: Select the **UPS Developer Resource Center** or **Developer Resource Center** link.
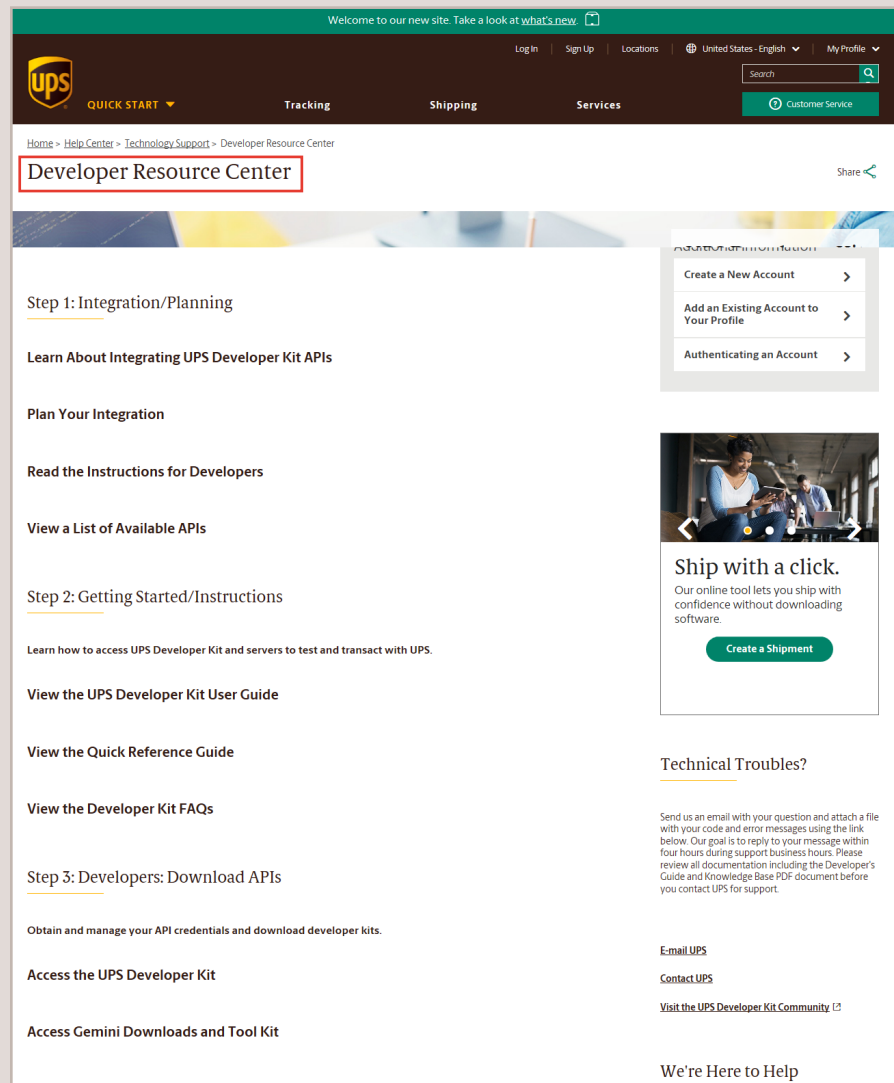
Resources

Follow key three steps (and associated links) as well as links to access technical support and the UPS Developer Kit Community through the UPS Developer Resource Center.

Step 1: Integration/Planning

Learn About Integrating UPS Developer Kit APIs

Plan Your Integration

Read the Instructions for Developers

View a List of Available APIs

Step 2: Getting Started/Instructions

Learn how to access UPS Developer Kit and servers to test and transact with UPS.

View the UPS Developer Kit User Guide

View the Quick Reference Guide

View the Developer Kit FAQs

Step 3: Developers: Download APIs

Obtain and manage your API credentials and download developer kits.

Access the UPS Developer Kit

Access Gemini Downloads and Tool Kit
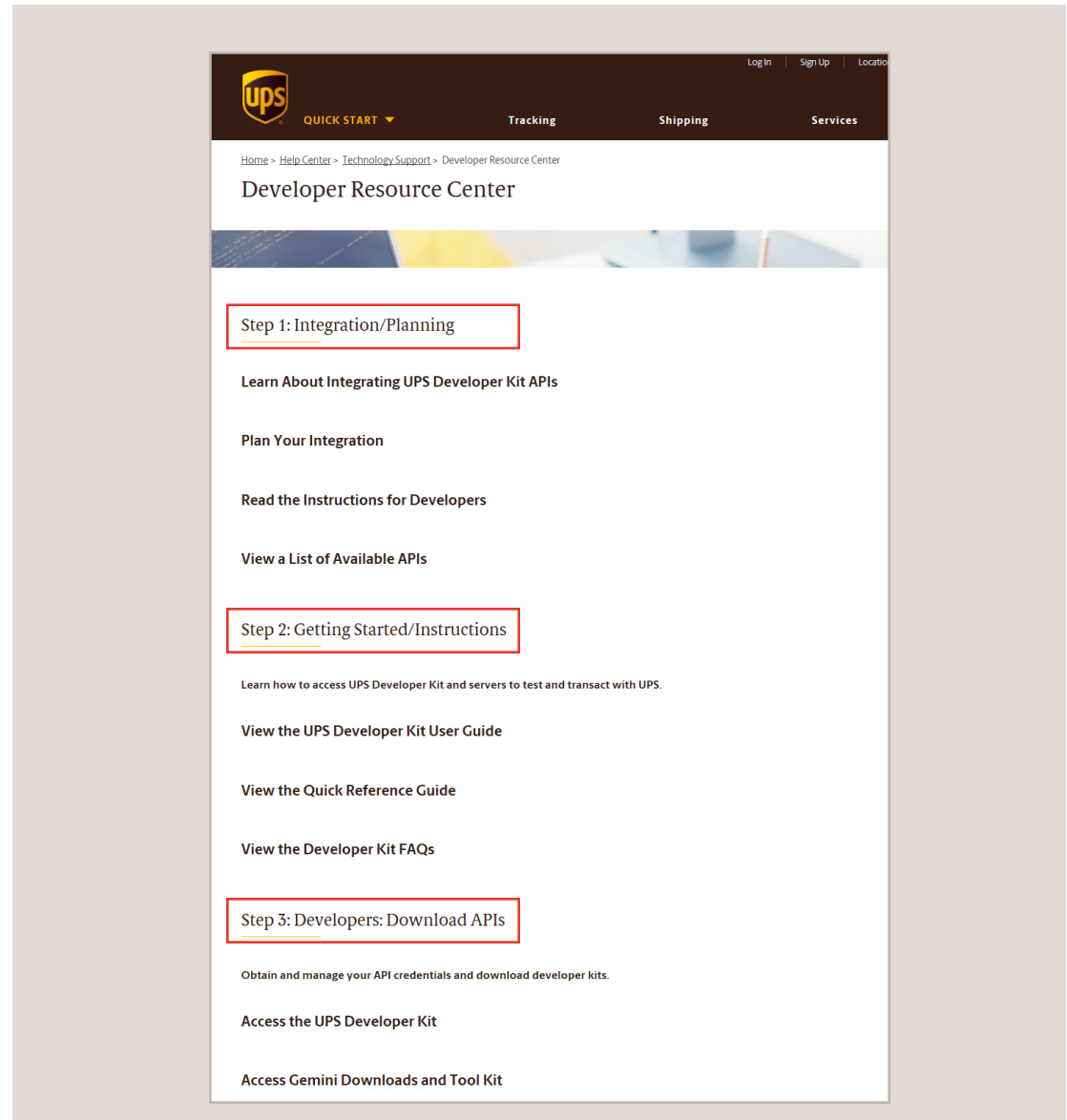
Technical support

There are four channels for obtaining support for the UPS Developer Kit APIs, all of which may be accessed through the UPS Developer Resource Center. Instructions on getting access to the UPS Developer Resource Center can be found on page 40.

UPS Developer Kit support

1. UPS Developer Kit Community

This is a community forum for developers to answer one another's questions and share information, therefore response time may vary. There is also a "System Status Page" that allows registered customers to subscribe to e-mail notifications when changes are posted to this web page.

2. E-mail technical support *(preferred channel)*

This is the support channel for technical support and questions regarding API integration. It is accessed by logging in and attaching your XML Request/Response files and any other pertinent information about your integration. UPS E-mail Technical Support can only support the XML Request/Response pair. Technical support cannot advise customers and developers on how to integrate the XML into their internal or purchased software.

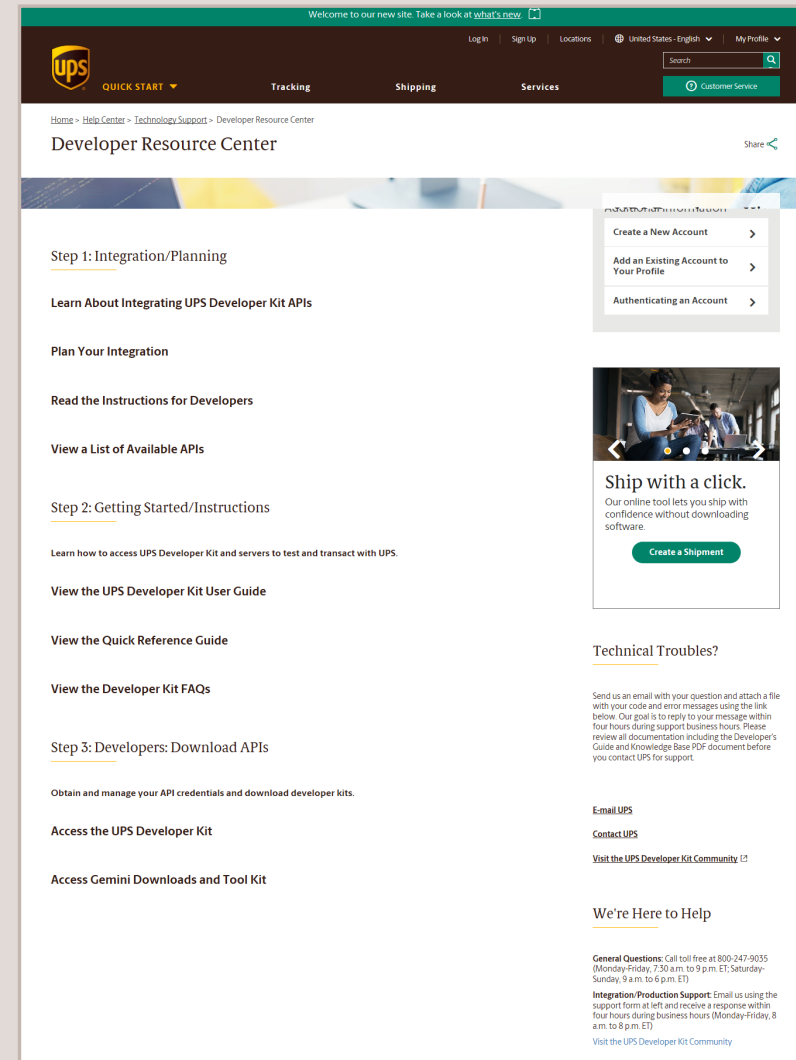# Technical support (cont.)

UPS Developer Kit support (cont.)

**3. General questions phone support
(limited to ups.com navigation support)**

Phone support is the least comprehensive support mechanism for developers. This channel of support addresses questions about the user interface at **ups.com** and how to gain access to the APIs and navigate the Access Key request process. It does not provide technical support for XML Request/Response issues and questions. *Those types of questions **must** go through UPS E-mail Technical Support.*

4. UPS Developer Kit FAQs

This is a self-service support PDF document that can be opened or downloaded. It contains over 240 frequently asked questions about every mode and service supported by the UPS Developer Kit APIs. It's also available in an online version at the UPS Developer Kit Community.

Technical support (cont.)

Getting e-mail technical support

Step 1: From the **Developer Resource Center** page select the **E-mail UPS** link in right hand column.

Step 2: Complete name, e-mail address fields, Support Category must be **Technical Support**, Support Topic must be **Developer Resources**, click **Next**.

Technical support (cont.)

Getting e-mail technical support (cont.)

Step 3: Scroll down the page and complete the
remainder of the form, including:

– *Your Telephone*

– *Stage of Development*

– *Developer Resource which is the API you are*
integrating

• Attach your XML Request/Response Pair file. (You must
be logged in to attach files)

• Include any pertinent description of the issues in the
What is your question or comment? field

• Select **Send E-mail** button

Technical support (cont.)

Technical support hours and response times

First-level e-mail technical support
- Hours of operation are 8:00 a.m. to 8:00 p.m. EST Monday through Friday
- E-mail response time is planned to be within four business hours of the initial request
- Business hours are defined as hours of operation of the Tech Support desks when service technicians are working (UPS holidays excluded)

Note: *If you submit an e-mail request after business hours, the four hour response time frame will not begin until the following morning at 8:00 a.m. EST Monday through Friday.*

Escalation support
- Hours of operation are 8:00 a.m. to 8:00 p.m. EST Monday through Friday
- Response time is planned to be within 24 hours during normal hours of operation
- Closed weekends and on UPS holidays

Note: *If you are sent an e-mail from first-level E-mail Tech Support stating your case log # has been escalated, the 24 hour planned response clock starts from the time you receive the e-mail from first-level E-mail Tech Support (provided the Escalation Support desk is open). If not, then the clock will begin when the Escalation Support desk opens. This means if your case log is escalated at 8:30 p.m. on Friday, you may not receive an e-mail response from the Escalation Support desk until Monday at 8:00 p.m. at the latest (Saturdays, Sundays and holidays are excluded). Response times are from the time the case log was escalated plus 24 hours which does not include weekends or UPS holidays.*