POWERTEX GROUP

Order Fulfillment API

User Guide

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Contents

Introduction

The Powertex Group Order Fulfillment Service provides merchants with the ability to submit orders, which have been taken through their own E-Commerce platform, to Powertex to be packaged and shipped from our distribution facility.

This is a REST style API designed to provide an easy to use HTTP based service that can be easily consumed from virtually any source using your choice of back-end platforms such as ASP.Net, PHP, or JavaScript.

Account Setup

Merchants will first be required to register for services with Powertex and complete the service agreement. You can request access to the Powertex Order Fulfillment service by contacting us at customerservice@powertexgroup.com. Please provide the following information in your request:

- Company name
- Primary contact name
- Primary contact email address
- Primary contact phone number
- Technical contact name (If different from the Primary Contact)
- Technical contact email address (If different from the Primary Contact)
- Technical contact phone number (If different from the Primary Contact)

A Powertex account representative will then contact you to discuss the program, requirements, and get you setup for access to the Powertex Order Fulfillment service.

In addition to your basic information we will require product information for the items you will want Powertex to provide fulfillment services for. This information is not needed to get started but will be necessary to complete the setup and activate your service.   See the *Examples and Sample Code* section for a detailed list of the required product information.

Login and Authentication

The first step to interacting with the Powertex Order Fulfillment Service is Login / Authentication. You will be provided your credentials when your account has been created which you will then use to log in to the (OAuth2 based) authentication service.

Once you have successfully authenticated (logged in) you will receive a "token" that must then be supplied with each subsequent request. This token will be valid for a period of 1 hour so you can re-use the token for any requests made within that time period but after 1 hour you will need to authenticate once again to receive a new token.

Authentication takes place by submitting a POST request to the following URL:

https://fulfillment.powertexgroup.com/Token

The body of the request must contain the following, in plain text:

grant_type=password&username=<USERNAME>&password=<PASSWORD>

Upon successful authentication; you will receive an HTTP 200 (OK) response with the following fields in the body:

Field	Data Type	Description
access_token	String	The access token is a long alpha-numeric string that is automatically generated with each successful authentication request.
token_type	String	Indicates the type of token being returned. This value will always be "bearer".
expires_in	Integer	The number of seconds until the generated token expires. This will always be 3600 seconds (1 hour).
userName	String	This is your username.
.issued	DateTime	The RFC1123 compliant date / time the token was generated.
.expires	DateTime	The RFC1123 compliant date / time the token will expire.

A sample response is shown below:

```
HTTP/1.1 200 OK
Content-Length: 638
Content-Type: application/json;charset=UTF-8
Date: Wed, 01 Jan 2014 17:00:00 GMT

{"access_token":"xGLT9…
","token_type":"bearer","expires_in":86399,"userName":"username",".issued":"Wed, 01 Jan
2014 17:00:00 GMT",".expires":"Thu, 02 Jan 2014 17:00:00 GMT"}
```

The "access_token" in the sample response above was truncated for readability.

The "access_token" is the key element here and this is the value that you must supply when submitting requests (other than to log in) to the service. This token value must be passed through in the "Authorization" request header and must be in the format:

```
Authorization: Bearer {TOKEN GOES HERE}
```

If you attempt a request while not logged in you will receive an HTTP 401 (Unauthorized) response.

A sample "not authorized" response is shown below:

```
HTTP/1.1 401 Unauthorized
Content-Type: application/json; charset=utf-8
WWW-Authenticate: Bearer
Date: Wed, 01 Jan 2014 17:00:00 GMT
Content-Length: 71

{"$id":"1","Message":"Authorization has been denied for this request."}
```

See the *Examples and Sample Code* section for examples of how to submit a login request and retrieve the access token from the response.

Submitting Your Order

Orders can be submitted for fulfillment by submitting a POST request to the following URL:

https://fulfillment.powertexgroup.com/Orders

The order details must be in the body of the request and should contain the fields listed below. If a particular field has no value, leave that field empty or set to 0 as appropriate.

Field	Data Type	Req?	Description
OrderDate	DateTime	Y	The effective date of the order. Must be a valid date and time value (e.g. 2014-01-01 13:00:00).
OrderNumber	String	Y	The order number you have assigned to the order.
BillToCompany	String	N	Company name for the billing address.
BillToName	String	Y	Name for the billing address.
BillToAddress	String	Y	Street address for the billing address.
BillToAddress2	String	N	Secondary address information for the billing address.
BillToCity	String	Y	City name for the billing address.
BillToState	String	Y	State name for the billing address.
BillToZip	String	Y	Postal code for the billing address.
BillToCountry	String	Y	Two (2) letter country code for the billing address.
BillToPhone	String	N	Phone number for the billing address.
BillToEmail	String	N	Email address for the billing address.
ShipToCompany	String	N	Company name for the shipping address.
ShipToName	String	Y	Name for the shipping address.
ShipToAddress	String	Y	Street address for the shipping address.
ShipToAddress2	String	N	Secondary address information for the shipping address.
ShipToCity	String	Y	City name for the shipping address.
ShipToState	String	Y	State name for the billing address.
ShipToZip	String	Y	Postal code for the shipping address.
ShipToCountry	String	Y	Two (2) letter country code for the shipping address.
ShipToPhone	String	N	Phone number for the shipping address.
ShipToEmail	String	N	Email address for the shipping address.
ShipToAddressType	String	Y	Indicate if the shipping address is a Residential or Commercial address.
PoNumber	String	N	PO Number assigned to the order.
OrderSubTotal	Decimal	Y	The sub-total of the goods on the order, excluding tax, freight, handling, and processing charges.
OrderTaxTotal	Decimal	Y	Total of all taxes collected on the order.
OrderFreightTotal	Decimal	Y	Total amount of freight, processing, and handling charges on the order.
PaymentMethod	String	Y	The method of payment used for the order (e.g. Credit Card, PayPal, Check, Cash).
ShippingMethod	String	Y	The shipping method to be used for the order (e.g. USPS Priority Mail, UPS Ground, Next Day Air).
OrderNote	String	N	A note to include with the order.
OrderItems	Other	Y	A list of the items on the order. See details on the next page.

The order must contain a list of items purchased on the order. The following fields should be specified for each item on the order. If a particular field has no value, leave that field empty or set to 0 as appropriate.

Field	Data Type	Req?	Description
ProductSku	String	Y	The SKU of the product associated with this item.
ProductName	String	Y	The name of the product associated with this item.
UnitPrice	Decimal	Y	The per-item amount charged for this item on the order.
Quantity	Integer	Y	The number of this item purchased on the order.
ItemSubTotal	Decimal	Y	The sub-total for this item on the order.
Taxable	Boolean	Y	Indicates if this item was taxable on the order.
ItemTaxAmount	Decimal	Y	The amount of tax charged for this item on the order.
FreightCharge	Decimal	N	The amount of freight charged for this item on the order.

Each order must contain at least one (1) item and there is no limit on the number of items that can be on an order. All items on the order will be matched against products you have registered with Powertex for fulfillment services.

Upon successful submission of your order you will receive a HTTP 201 (Created) response message with a "Location" header that lists the address at which you can view the order and the body of the response message will be "Order created with order number 999999" (where 999999 is the actual order number).

A sample response is shown below:

```
HTTP/1.1 201 Created
Content-Type: application/json; charset=utf-8
Location: http://fulfillment.powertexgroup.com/api/Orders/2
Date: Wed, 01 Jan 2014 17:00:00 GMT
Content-Length: 43

"Order Created with order number 110000002"
```

If there are any problems with the order data submitted, you will receive a HTTP 400 (Bad Request) response with error details in the body of the response. These error details will contain the following:

Key	Description
Message	A simple error summary message
ModelState	Key / value collection where the key is the property name and the value is the associated error message.

A sample error response is shown below:

```
HTTP/1.1 400 Bad Request
Content-Type: application/json; charset=utf-8
Date: Wed, 01 Jan 2014 17:00:00 GMT
Content-Length: 109

{"$id":"1","Message":"The request is
invalid.","ModelState":{"$id":"2","ProductSku":["Invalid Product SKU: ABC123"]}}
```

Information Lookups

This section is currently being documented.

Examples and Sample Code

Product Setup Information

As part of the setup process you will need to submit a list of products that you wish Powertex to provide fulfillment services for. This list should be provided as a CSV file (fields separated by commas and values enclosed in double-quotes) with the following fields (a header line is acceptable, but not required):

Property	Data Type	Size	Required?	Description
SKU	String	20	Y	SKU /Item Number for the product. Must be unique to each product and / or product variant (i.e. size & color combination).
Name	String		Y	Name for the product.
Color	String		N	The color of the product, if applicable.
Size	String		N	The size of the product, if applicable.
Weight	Decimal		N	Shipping weight of the product, in U.S. pounds.

Sample Code

Sample code is provided separately for C#, VB.Net, and PHP.

Response Codes

All responses will include a HTTP response code in addition to any messages. These response codes can be used to quickly determine the general status of your request and determine if it was successful or not. The various codes that will be returned are listed below with a short description of what each code indicates.

Response Code	Description
200	OK – This is a general "Success" status. This indicates that your request was successful. You should examine the body of the message for any additional information related to your request.
201	Created – This indicates that your requested resulted in a new resource being created. This is the response code you will receive when you successfully submit an order. The message portion of the response will include a link to view the newly created resource.
204	No Content – This indicates that your request was successful but did not return any information. This occurs for operations where it does not make sense to send a response message, such as logging out.
400	Bad Request – This indicates that there was an error processing your request. You should examine the details contained in the body of the response for additional information.
401	Unauthorized – This code means that you have not logged in, your access token has expired, or you did not provide a valid API Key in your request headers. The response message (intentionally) does not provide any information about which of these is the specific cause of the error.
403	Forbidden – You have attempted an action you are not authorized to perform. This can occur even if you have successfully authenticated if you have not been granted access to the requested action.
404	Not Found – This indicates that you have requested an invalid resource. Verify the URL to which you are submitting the request to ensure that it is accurate.
500	Internal Server Error – This indicates that an error has occurred while processing your request. You can try to submit your request again. If you receive this error repeatedly, please contact your account representative to request assistance.