FlexPay Purchase API v3.4

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Related documents:	FlexPay Subscription v3.4 API, FlexPay API v3.2 One-Click

Document History

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1.0.1	Added information for CardBilling	Verotel IT Services	11/6/2015
1.1	Added DDEU payment method	Verotel IT Services	15/10/2015
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1.3	API version 3.2: backURL, oneClickToken parameters	Verotel IT Services	13/7/2016
1.4	Added Credit and Chargeback postback calls	Verotel IT Services	22/08/2016
1.5	Added "declineURL" parameter, latest version updated to **3.3**	Verotel IT Services	05/09/2016
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Introduction

FlexPay API allows dynamically set parameters for Verotel Order Pages. This is especially useful when integrating with eCommerce or other systems which use dynamic pricing.

FlexPay offers two types of orders:

- **purchase**
- **subscription**

The main difference between purchase and subscription is that **subscription** has some duration - a time period - for which it is active while **purchase** is just a simple one-off sale.

Setup

- Create a FlexPay website in *Control Center > Setup Websites*. From the *Website detail* page, you will now have access to several configuration options.

- Configure the "Postback script" and the "Success page" URLs in *FlexPay options* page.

FLEXPAY OPTIONS #64233

Payment methods
☑ Credit card
  Available worldwide

☑ Direct Debit EU
  Available only in DE, AT, CH, BE, IT, NL, ES and FR

☑ Bitcoin
  Available worldwide

Postback script URL

http://flexpaypostbacks.verotel.cz/postback.php

Success URL

http://flexpaypostbacks.verotel.cz/success.php

[Save]

- Select which payment methods are enabled for your purchases. Currently Credit card and Bitcoin payments are supported. At least one payment method must be enabled.

FLEXPAY OPTIONS #64233

Payment methods
☑ Credit card
  Available worldwide

☑ Direct Debit EU
  Available only in DE, AT, CH, BE, IT, NL, ES and FR

☑ Bitcoin
  Available worldwide

- Get the FlexPay "**Signature Key**" - this can be found on the same page. This key is used for calculating signatures to ensure integrity of data in requests and postbacks ([See Calculating signature](#)).

FLEXPAY REQUEST DATA

Shop ID and Signature Key are required to generate FlexPay signature.

Signature Key: DKeweGGsPAhc3bf.JJqhbGkKEgz46GQ

- Customize the order page to match your website design

ORDERPAGE DESIGN SETUP

ORDERPAGE STYLE

Background color

without #, e.g. FFFFFF

Please enter a hexadecimal RGB value which is 6 characters long.

Foreground color

without #, e.g. 000000

Please enter a hexadecimal RGB value which is 6 characters long.

ORDERPAGE LOGO

There is currently no logo for this website.

⦿ No changes
◯ Upload new logo

[Continue]

- Additionally, you can require the buyers to enter their billing address by enabling this option in the *Orderpage options* section. You can also restrict sales to one of the predefined territories.

ORDERPAGE OPTIONS

☐ Require buyer address

Buyer address

If checked, users have to fill in the address during the order.

- NEXT: Integrate the Verotel OrderPage to your website.

FlexPay Purchase interactions
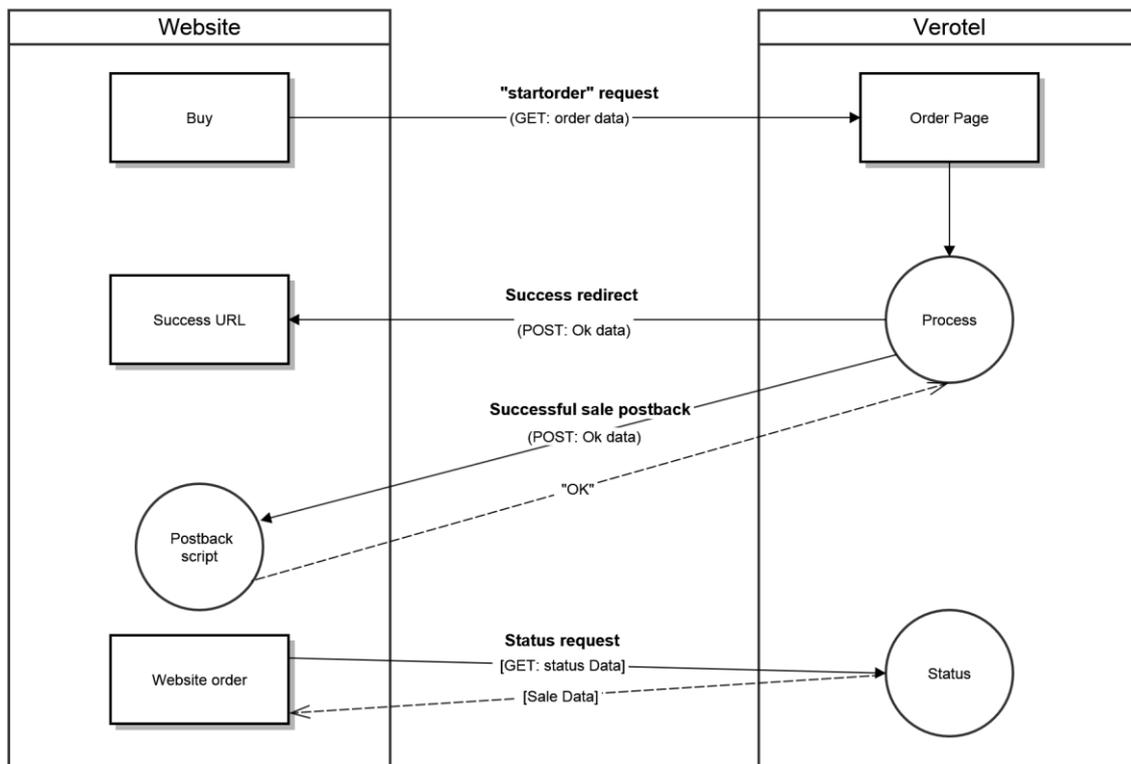
FlexPay purchase is a once-off operation without any active time period. It is an ideal dynamic pricing solution for:

- Cam sites pay
- per view sites
- pay per download sites
- shopping cart systems (also for tangible products)
- token / credit purchase systems

FlexPay purchase supports payments by Credit Card, Bitcoins and Direct Debit EU.

A new purchase order starts with a "startorder" request

The "**startorder**" purchase request is used to redirect buyer to the Verotel Order Page to process one-off purchase with a given amount, currency and other parameters.

See Constructing Purchase startorder request

Once the initial transaction is successfully processed the enduser is redirected to the "success URL" or backURL

After a successful transaction, the buyer is redirected to a nominated "Success URL" parameter and a set of data describing the sale is sent along as HTTP parameters.

NOTE: The data is not sent to URL defined in **backURL**, the buyer is only redirected there. The **backURL** is a dynamic parameter so it can by itself contain enough data to identify the sale.

See Data posted to success URL upon successful transaction

Successful initial sale postback ("OK data") is sent in the background

The "**initial**" OK data postback is sent to the nominated "Postback URL" immediately after the sale has been processed.

"OK data" is sent only for successfully approved transactions. The data in the postback provide essential information about the sale. If more information is needed, for example billing address or email address of the buyer, the merchant should query the status page.

If one-click feature is enabled, then the OK data postback contains "oneClickToken" which is necessary for next one-click purchase.

Important: The Verotel system expects "**OK**" response. For Credit Card payments - If no such response is received, an automatic refund is initiated.

See "OK data" postback call

Sale status request

Although it is an optional step, we recommend that you cross check the received data with the Verotel Status service. You send the Verotel transaction ID or the sale Reference ID (if you have provided one in the "**startorder"** request) to the Verotel status script in order to verify the status of the transaction. Usually, this extra check is performed before the buyer is informed that the transaction was successfully processed. The Verotel Status service can be used any time after the transaction took place.

If one-click feature is enabled, then the status also contains "oneClickToken".

See FlexPay status page request

Postback summary

- "**initial**" - Successful sale - informs about a successful initial transaction
- "**credit**" is sent when refund transaction is processed and subscription is terminated and ends.
- "**chargeback**" is sent when chargeback transaction is processed and subscription is terminated.

Please note: "**Chargeback**" and "**Credit**" postbacks are not sent by default for websites created prior 15th September 2016.

Technical details

Constructing purchase "startorder" request

FlexPay purchase call is used to redirect buyer to the Verotel Order Page to process the purchase sale.

The FlexPay subscription call is used to redirect the buyer to the Verotel Order Page to process one-time or recurring payment subscriptions.

The "**startorder**" request for FlexPay purchase consists of number of parameters passed to the startorder URL and secured by a signature.

The URLs for different account brands:

Brand	startorder URL
Verotel	*https://secure.verotel.com/startorder?*
CardBilling	*https://secure.billing.creditcard/startorder?*
FreenomPay	*https://secure.freenompay.com/startorder?*

Startorder parameters:

Parameter	Type	Optional / Mandatory	Description
backURL	*string*	optional	URL for redirect after successful transaction. **NOTE:** Max 255 characters Supported from version **3.2**
custom1	*string*	optional	pass-through variable - max 255 printable characters
custom2	*string*	optional	pass-through variable - max 255 printable characters
custom3	*string*	optional	pass-through variable - max 255 printable characters
description	*string*	mandatory	description of the product. Text is displayed on the order page - max 100 printable characters
declineURL	*string*	optional	URL for redirect after declined transaction. **NOTE:** Max 255 characters Supported from version **3.3**
email	*string*	optional	email of the buyer. If not set, it will be collected on the Order Page **NOTE:** email is **excluded** from signature calculations
oneClickToken	*string*	options	The one-time oneClickToken from previous purchase.

Verotel

Parameter	Type	Optional / Mandatory	Description
			NOTE: oneClickToken is **excluded** from signature calculations Supported from version **3.2**
paymentMethod	*string*	optional mandatory if oneClickToken is used	payment method, "**CC**", "**DDEU**" or "**BTC**" (if not set then buyers can choose from available payment methods) **Note**: DDEU is available only in DE, AT, CH, BE, IT, NL, ES and FR If **oneClickToken** is sent, the payment method must be set to "**CC**"
priceAmount	*number*	mandatory	amount to be processed in nnn.nn format
priceCurrency	*string*	mandatory	3 char ISO code, must be one of the Sale currencies (**USD, EUR, GBP, AUD, CAD, CHF, DKK, NOK, SEK**), **Cardbilling** customers can only use single sale currency they have selected for their account. **Note:** only **EUR** is can be used for **DDEU** payment method
referenceID	*string*	optional	Merchant's reference identifier. It must be unique if provided - max 100 printable characters
shopID	*number*	mandatory	numerical ID of the shop or website in the Verotel system
signature	*string*	mandatory	security token to verify the integrity of the postback data ([See Calculating signature](#))
type	*string*	mandatory	"**purchase**"
version	*number*	mandatory	version of the FlexPay call, "**3.4**" for this version

Example "startorder" request:

https://secure.verotel.com/startorder?custom1=my+custom+code&description=Spring+Special&priceAmount=9.99&priceCurrency=USD&shopID=64233&type=purchase&version=3.4&signature=b690ae8daca52243c85d3ce4365f137944e58d1d

Since the Payment method was not specified this opens a page which lets the buyer to select from the available payment methods. (DDEU is not offered as the sale currency is USD)
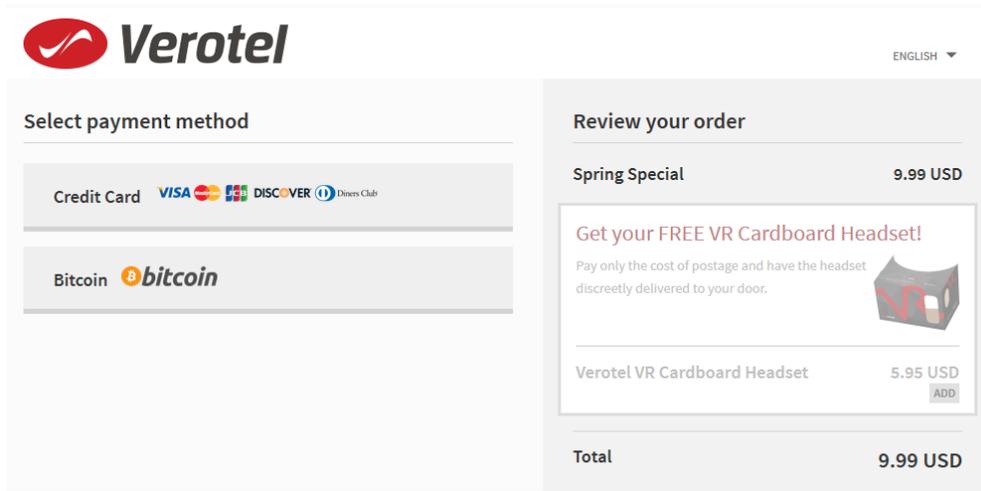
Data posted to success URL upon the FlexPay transaction (OK data)

After a successful transaction, the buyer is redirected to a nominated "Success URL" parameter and a set of data describing the sale is sent along as HTTP parameters.

NOTE: The data is not sent to URL defined in **backURL**, the buyer is only redirected there. The **backURL** is a dynamic parameter so it can by itself contain enough data to identify the sale.

Parameter	Type	Description
custom1	*string*	pass-through variable - max 255 printable characters
custom2	*string*	pass-through variable - max 255 printable characters
custom3	*string*	pass-through variable - max 255 printable characters
paymentMethod	*string*	Used payment method, "CC", "DDEU" or "BTC"
priceAmount	*number*	amount to be processed in nnn.nn format
priceCurrency	*string*	3 char ISO code of the Sale currency
referenceID	*string*	Merchant's reference identifier if provided - max 100 printable characters
saleID	*number*	identifier of the sale in the Verotel system
shopID	*number*	numerical ID of the shop or website in the Verotel system
signature	*string*	security token to verify the integrity of the postback data (See Calculating signature)
type	*string*	**"purchase"**

'OK data' postback call

The successful sale postback is sent to the nominated "**Postback URL**" immediately after the sale has been processed.

The postback is sent only for successfully approved transactions. The data in the postback provide essential information about the sale. If more information is needed, for example billing address or

email address of the buyer, the merchant should query the status page.

Important: The Verotel system expects "**OK**" response within 30 seconds. If no such response is received, an automatic refund is initiated. (Or in case of BTC payment a notification is sent to merchant, support and enduser).

Parameter	Type	Description
custom1	*string*	pass-through variable - max 255 printable characters
custom2	*string*	pass-through variable - max 255 printable characters
custom3	*string*	pass-through variable - max 255 printable characters
oneClickToken	*string*	If the feature is enabled - oneClickToken valid for next purchase
paymentMethod	*string*	payment method, "CC", "DDEU" or "BTC"
priceAmount	*number*	amount to be processed (max 2 decimal places, stripped zeroes)
priceCurrency	*string*	3 char ISO code of the Sale currency
referenceID	*string*	merchant reference identifier. It must be unique if provided - max 100 printable characters
saleID	*number*	identifier of the sale in the Verotel system
shopID	*number*	numerical ID of the shop or website in the Verotel system
signature	*string*	security token to verify the integrity of the postback data ([See Calculating signature](#))
type	*string*	"purchase"

'Credit' Postback call

Credit postback call is sent to the merchant's postback URL when the sale transaction is credited by merchant, Verotel support or by system (e.g. when an automated refund is performed).

Please note: "Credit" postbacks are not sent by default for websites created prior 15ᵗʰ September 2016. Credit postback can be enabled by request for these websites.

Parameter	Type	Description
priceAmount	*number*	Amount of refunded transaction
priceCurrency	*string*	Refunded transaction currency
custom1	*string*	pass-through variable - max 255 printable characters
custom2	*string*	pass-through variable - max 255 printable characters
custom3	*string*	pass-through variable - max 255 printable characters
event	*const* "**credit**"	Type of event "**credit**"
parentID	*number*	Id of the original transaction that is refunded

saleID	*number*	Verotel sale id
transactionID	*number*	Id of the refund transaction
shopID	*number*	Verotel website id
signature	*string*	security token to verify the integrity of the postback data ([See Calculating signature](#))

'Chargeback' Postback call

Chargeback postback call is sent to the merchant's postback URL when sale transaction is chargebacked. This also blacklists the buyer.

Please note: "Chargeback" postbacks are not sent by default for websites created prior 15th September 2016. Chargeback postback can be enabled by request for these websites.

Parameter	Type	Description
priceAmount	*number*	Amount of refunded transaction
priceCurrency	*string*	Refunded transaction currency
custom1	*string*	pass-through variable - max 255 printable characters
custom2	*string*	pass-through variable - max 255 printable characters
custom3	*string*	pass-through variable - max 255 printable characters
event	*const "**chargeback**"*	Type of event "***chargeback***"
parentID	*number*	Id of the original transaction that is refunded
saleID	*number*	Verotel sale id
transactionID	*number*	Id of the refund transaction
shopID	*number*	Verotel website id
signature	*string*	security token to verify the integrity of the postback data ([See Calculating signature](#))

FlexPay status page request

A status of a sale made with a FlexPay API can be reviewed by querying the status page. Status page provides complete information about the sale, the buyer, and its status.

Status request URL**:**

Brand	Status URL
Verotel	*https://secure.verotel.com/status/order?*
CardBilling	*https://secure.billing.creditcard/status/order?*
FreenomPay	*https://secure.freenompay.com/status/order?*

followed by parameters in the table below:

GET parameters in response	Description
referenceID (optional)	Merchant's reference identifier if provided (referenceID OR saleID must be posted - NOT BOTH)
saleID (optional)	Verotel saleID identifier (referenceID OR saleID must be posted - NOT BOTH)
shopID	numerical ID of the website or shop in Verotel system
signature	SHA-1 hash generated on data listed above and Merchant's private key stringsha1_hex(signatureKey + ":referenceID=" + referenceID + ":saleID=" + saleID + ":shopID=" + shopID + ":version=" + version)
version	Version of the Verotel Purchase OrderPage protocol: "**3.4**"

Example:

https://secure.verotel.com/status/order?saleID=7263519&shopID=64233&version=3.4&signature=cdee1607c7746ed63d6d8ec54875ed43b07895f7

FlexPay Purchase Status response:

The date returned to the status request is in plain-text and contains lines with parameterName, colon, parameterValue:

Output parameter name	Description
response	**FOUND** - purchase record found and returned **NOTFOUND** - purchase not found **ERROR** - error (see 'error' key)
error	message (for response=ERROR)
saleID	identifier of the transaction in Verotel System
shopID	ID of the website or shop in Verotel system
paymentMethod	an identifier of payment method that was used for the transaction. Can be one of following: "**Credit Card**", "**Direct Debit EU**" or "**Bitcoin**"
priceAmount	amount to be processed. in nnn.nn formatt
priceCurrency	3 char ISO code of the Sale currency
description	Product description text - max 100 printable characters
referenceID	Merchant reference identifier - max 100 printable characters
name	name of the buyer

Output parameter name	Description
email	email address of the buyer
country	selected or detected country ISO code (ISO 3166-1-alpha-2 code)
oneClickToken	If the feature is enabled - Currently valid oneClickToken
btc_transaction_status	Only for Bitcoin sales: The status of Bitcoin transaction as set by the postback from Bitcoin processor: "**paid**" - the transaction was successfully sent to the processor "**complete**" - the transaction was confirmed and processed completely "**invalid**" - the transaction could not be processed, it was unsuccessful
createdOn	Timestamp of purchase creation
saleResult	purchase processing result (**APPROVED**)
billingAddr_fullName	billing address: full name field value
billingAddr_company	billing address: company field value
billingAddr_addressLine1	billing address: 1st line field value
billingAddr_addressLine2	billing address: 2nd line field value
billingAddr_city	billing address: city name
billingAddr_zip	billing address: zip code / postal code
billingAddr_state	billing address: US state code (ISO 3166-2)
billingAddr_country	billing address: country ISO code (ISO 3166-1-alpha-2 code)

Example response:

```
response: FOUND

shopID: 60678
paymentMethod: Credit Card
priceAmount: 51.20
priceCurrency: EUR

description: some description of product
referenceID: AX62362I3
saleID: 13029033
saleResult: APPROVED
name: John Black
email: black@example.com
country: CZ
oneClickToken: 286D9498-3A02-11E6-8531-A779FE751966

billingAddr_fullName: John Black
billingAddr_company:
billingAddr_addressLine1: Longstreet 3782/13
billingAddr_addressLine2:
```

```
billingAddr_city: London
billingAddr_zip: 73811
billingAddr_state:
billingAddr_country: GB
```

Calculating signature

The signature used in FlexPay requests and postbacks is calculated as SHA-1 hash (hexadecimal output) from the request parameters.

The first parameter has to be your signatureKey, followed by the parameters ordered alphabetically by their names.

Optional arguments that are used (have value) must be contained in the signature calculation. Optional arguments that are not used must not be contained in the signature calculation.

The **email** and **oneClickToken** parameters in "**startorder**" request are **NOT** included in the signature calculations.

It is mandatory to convert arguments values into UTF-8 before computing the signature.

e.g.

signature = sha1_hex(signatureKey + ":description=" + description + ":period=" + period + ":priceAmount=" + priceAmount + ":priceCurrency=" + priceCurrency + ":referenceID=" + referenceID + ":shopID=" + shopID + ":subscriptionType=" + subscriptionType + ":type=" + type + ":version=" + version)

Example calculation:

Parameter	Value
(signatureKey)	BddJxtUBkDgFB9kj7Zwguxde4gAqha
description	Super video download
priceAmount	9.99
priceCurrency	USD
custom1	xxyyzz
shopID	64233
type	purchase
version	3.4

Signature calculation using the values above:

signature = sha1_hex(BddJxtUBkDgFB9kj7Zwguxde4gAqha:custom1=xxyyzz:description=Super video download:priceAmount=9.99:priceCurrency=USD:shopID=64233:type=purchase:version=3.4) => 3d35884da6480461f42e107e7d2facf6e952f1cd

The FlexPay purchase request then is:
https://secure.verotel.com/startorder?custom1=xxyyzz&description=Super+video+download&priceAmount=9.99&priceCurrency=USD&shopID=64233&type=purchase&version=3.4&signature=3d35884da6480461f42e107e7d2facf6e952f1cd

Verotel IP addresses used postbacks

The latest list of Verotel IPs is available here: http://www.verotel.com/static/nats/proxy-ips.txt

195.20.32.202
217.115.203.18
89.187.131.244

Testing postbacks

For developers there is a tool available in the Control Center for generating postback calls. The "Test FlexPay postbacks" tool is available on FlexPay website detail:

This tool allows developers to define Purchase Ok Data postback parameters, send the postback to the website postback URL and view the postback result.