



# EveryPay LinkPay Documentation

2018-10-11

	1
<b>Overview of the LinkPay product</b>	<b>2</b>
What is LinkPay?	2
Payment options with LinkPay	2
<b>How to use LinkPay</b>	<b>2</b>
Creating a Template	2
Creating a Link	4
Receiving a Callback for the LinkPay payment	4
Getting overview of LinkPay payments	7
<b>LinkPay Subscriptions</b>	<b>8</b>
What is LinkPay Subscription?	8
Creating a Subscription Plan	8
Creating Subscription Link/Template	10
Subscription Link limits	11
LinkPay Subscription lifecycle events	11
LinkPay Subscription Callbacks	11
<b>Creating URL-changeable LinkPay links</b>	<b>13</b>
Setting up a general link	13
HMAC calculation for the link	14

# Overview of the LinkPay product

## What is LinkPay?

EveryPay LinkPay is a tool for all types of businesses allowing to accept online card payments without need for IT development or even a website. LinkPay product allows Merchants to create a payment link with predefined details (doing so by using EveryPay Portal) and post the created links to its customers for payment. The payment link is easy to use for customers as they will be automatically redirected to EveryPay's LinkPay page for checkout and for card payment.

Please see the sample payment here: <https://igw-demo.every-pay.com/lp/mdi6k5>

*Please note that when you fill in the fields on the sample payment form you accept that EveryPay will store the provided email address in our test environment database. EveryPay will not use nor share this data. Use only pre-filled test card details.*

## Payment options with LinkPay

LinkPay product covers the use-cases such as

- Creating unique links for [one-off payments](#)
- Creating links for [subscription payments](#)
- Integrating LinkPay with Merchant systems (ERP, ect.) and [send out invoices](#) or messages with payment links in it.

Forwarding the link can be done using different methods:

- Turn the link into a button and use it on website.
- Add the link into an email.
- Add the link into an invoice.
- Add the link into a sms.
- Post the link on social media pages.
- Post the link to chat room or messenger.
- Turn the link into a QR code to use in offline media.

# How to use LinkPay

## Creating a Template

In order to send LinkPay links to customers to pay it is necessary to define a set of payment details to be associated with the link. In order to do so it is reasonable to create a LinkPay **Template** first. Creating a Template is optional, however LinkPay Template is a useful feature allowing to define one generic model per a specific use-case with required and custom fields as well as to give the check-out page a desired design. All this info saved as a Template can be further used as a framework for

several different links that hold the same scenario but might just require different language on the checkout page or some different currency for example.

### Template principles:

- Template allows to **define all the fields** that should be visible for customer, and also define whether the field can be changed or filled in by the customer while making the payment.
- Additionally to standard fields like *company name, transaction amount, invoice number or customer data* also any other information can be added as read-only or asked from customer to fill in on *custom fields*.
  - *order reference* field can be pre-filled by merchant to link the payment with the order data in its system. If not defined, the reference will be automatically generated by EveryPay system. The order reference value will be presented also on receipt displayed (and mailed) to customer.
- **Field name and language can be set** by the Merchant that best fits to its use-case. The defined language will be used on LinkPay page footer, on payment page and for displaying the error message if needed and to compose a receipt for the customer. *Supported languages on LinkPay page are Estonian and English.*
- To get the LinkPay form to have a visual design more natural to Merchant brand a **company's logo or banner can be used on the LinkPay page**. *Supported files are: jpg, jpeg, png, gif.*
- A **custom text on the Button** can be used if needed.
- **Required field** indicates whether the field is mandatory to be filled in by customer or not.

## LinkPay Edit Template

BACK

SAVE

Template name \*


Language ⓘ \*

Subscription link

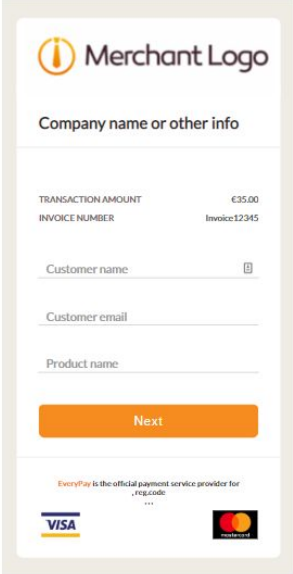
ENABLED	REQUIRED	CUSTOM FIELD LABEL	FIELD VALUE	CUSTOMER CHANGEABLE
<input checked="" type="checkbox"/>		Company name or other info		
		Transaction amount	35	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Invoice number	Invoice12345	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Customer name		<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Customer email		<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Product name		<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	Custom field 2		<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	Custom field 3		<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	Custom field 4		<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	Order reference		<input type="checkbox"/>

Next

[UPLOAD NEW LOGO](#)



Use image as logo



## Creating a Link

After having designed a Template the specific Link can be created by using the Template data defined beforehand.

- Go to LINKPAY -> Links -> Add link.
- Define the Link name.
- 'Choose template' dropdown gives the list of previously created templates
- Define the 'Processing account' to indicate the currency that the payments will be processed with.
- Set a **limit for the link** if needed for specific use-case (e.g registration to event is limited up to a certain amount of people). The limit is counted by successful payments. The field is optional and can be left empty.
- The **values defined within Template can be overwritten** if needed.
- Any **changes made on the Link attributes** or settings **don't affect** data defined on the **Template**.

Additionally, a **new Link can be created also by itself**, without using any predefined Templates. The logic and fields for creating the Link are the same as when creating the Template.

## Receiving a Callback for the LinkPay payment

In order to receive automatic notifications to Merchants' system a Merchant's URL for accepting callback requests must be defined in EveryPay Portal under E-Shop configuration (*Settings -> E-Shop settings -> LinkPay Notification URL*).

Defining a LinkPay callback URL will ensure that once the payment attempt is completed by the customer, successfully or not, EveryPay system will send a callback message (HTTP form POST) to the URL defined.

Callback consists of the following parameters:

Parameter	Description
nonce	Random unique value to prevent replay attacks
timestamp	Expressed as seconds from January 1, 1970 UTC
api_username	Merchant API username. The value can be found in Merchant Portal in the Settings section.
transaction_result	Should only be considered as additional

	<p>information about different phases of the payment.</p> <p>Possible values</p> <ul style="list-style-type: none"> <li>• 'completed'</li> <li>• 'cancelled'</li> <li>• 'failed'</li> </ul> <p>The definitive outcome of the payment attempt is reflected by payment_state parameter based on which the order status should be updated in merchant system.</p>
linkpay_token	Link token, reference to link used for the payment
linkpay_reference	Reference to payment performed with the link
account_id	Processing account ID that was used to process the transaction
order_reference	Order reference as defined by merchant or combined of linkpay_token/linkpay_reference (e.g.hvcjro/gwwwza)
payment_reference	Payment reference ID
fraud_score	Payment fraud score, calculated by EveryPay fraud prevention engine, in numeric format
stan	Payment STAN reference number, in numeric format. Returned only in case the payment was sent for processing to card processor and didn't fail already on EveryPay level.
state_3ds	<p>Payment 3D-Secure authentication status. Possible values are:</p> <ul style="list-style-type: none"> <li>• '3ds' - authentication completed successfully</li> <li>• 'attempted' - authentication attempted but not completed</li> <li>• 'failed' - authentication failed</li> <li>• 'no3ds' - no 3DS coverage for payment</li> <li>• 'unknown' - 3DS status unknown</li> </ul>
payment_state	Current status of the payment which

	<p>reflects the definitive payment outcome based on which the order status should be updated in merchant system.</p> <p>Possible scenarios:</p> <ul style="list-style-type: none"> <li>• 'settled' or 'authorised' (successful payments)</li> <li>• 'cancelled' or 'waiting_for_3ds_response' (cancelled/incomplete payments)</li> <li>• 'failed' (failed payments)</li> </ul>
transaction_time	Time of the transaction
amount	Transaction amount, dot as decimal separator
customer_name	Customer name value
customer_email	Customer email value
invoice_number	Value defined by merchant or entered by customer
custom_field_1	Custom field value defined by merchant or entered by customer
custom_field_2	Custom field value defined by merchant or entered by customer
custom_field_3	Custom field value defined by merchant or entered by customer
custom_field_4	Custom field value defined by merchant or entered by customer
cc_last_four_digits	Last four digits of the card number.
cc_year	Card expiration year (as entered by the cardholder in payment form), in YYYY format (e.g. 2017)
cc_month	Card expiration month (as entered by the cardholder in payment form), in mm format (e.g. 1 or 12)
cc_holder_name	Cardholder name (as entered by the cardholder in payment form)
cc_type	Card type. Possible values are 'visa' and

	'master_card'
cc_issuer	Card issuing organization
cc_funding_score	Indicates whether the card is 'Debit', 'Credit' or 'Prepaid'
cc_cobrand	Indicates co-branding if card is co-branded
cc_product	Indicates specific card product (e.g 'Gold', 'Platinum', 'Visa Classic', 'Visa Electron', 'Businesscard' etc.)
cc_issuer_country	Card issuing bank country, in alpha-2 format (e.g. 'EE')
hmac_fields	Comma-separated alphabetically ordered list of parameter names that were used in HMAC calculation. See "EveryPay Payment API Documentation" document for the HMAC calculation reference.
hmac	HMAC checksum of the redirect parameters. See "EveryPay Payment API Documentation" document for the HMAC calculation reference.

## Getting overview of LinkPay payments

### Payment information to customers:

- Once the customer has completed a payment with the LinkPay link they will be notified about the payment outcome (either successful or failed) with all payment details on a payment receipt.
- The receipt will be sent also to email if this information is asked or pre-filled with the order details on LinkPay checkout page.

### Information to Merchant:

- Once the payment attempt is completed (successfully or not), EveryPay system will send a callback message to the URL defined.
- All payment attempts are visible in EveryPay Portal under Payment Management list



- Additionally, under specific payment details, a reference to the Link details are given
  - with the crosslink to the Portal Link fields ('Token')
  - with the to customer receipt page ('Reference')
  - with the option to open up Link specifics attributes ('Form attributes').

## LinkPay Details

Token	t6sxeq			
Reference	wfe2u9			
<b>FORM ATTRIBUTES</b>				
FIELD NAME	CUSTOM FIELD LABEL	FIELD VALUE	CUSTOMER CHANGEABLE	REQUIRED
transaction_amount	Transaction amount	1		✓
customer_email	Customer email - leave it empty.		✓	
button_next	Next			
order_reference	Order reference	t6sxeq/wfe2u9		

- All LinkPay payments with specific token can be exported to CSV file from menu LINKS -> button CSV EXPORT

## LinkPay Subscriptions

### What is LinkPay Subscription?

EveryPay Subscription service offers Merchants the possibility of creating subscription plans in a wide variety of configurations, including free trial, manual editing of specific period length or payment amount, etc.

In this context, LinkPay makes it possible to accept subscription customers and collect periodic payments with the minimum IT or integration effort.

*Please note: the functionality is disabled by default. Please contact support@every-pay.com to be able to use Subscriptions functionality with your EveryPay account.*

### Creating a Subscription Plan

Linkpay Subscriptions assume that there are already one or more Plans configured in Subscriptions section in the Merchant Portal.

A Plan enables to define a template with the service name, cost, currency and the frequency for the Subscription to be billed on recurring basis.

When creating a Plan, the following fields must be specified:

- **Plan name:** To identify the plan e.g. Gold Plan, Yearly plan etc.
- **Cycle price:** The amount the customers will be charged.
- **Processing account:** Defines the currency (and whether 3DS is used for initial payment) in which the customer will be charged.
- **Calendar synchronized:** If opted 'yes' then the period always starts on corresponding calendar period (beginning of week, month, year).
- **Cycle unit:** How often the customer will be charged.
- **Cycle length:** This defines the frequency of the payments for how often the customer will be charged.
- **Billing day of period:** Enables to define when to bill the Subscription from the customer:
  - indicates the day from the beginning of period on which the payment will be processed;
  - applies for all periods;
  - by default set to '1';
  - will be defined by entering the positive number manually.
- **Breakoff day:** Enables to define a day which will be considered as a maximum allowed day for the current period signup, later Subscriptions are handled as pre-payments for the following period. E.g if "Billing day of month" is defined as '05' and "Breakoff day" is defined as '20' then for all Subscriptions registered until 20.01 (included) the first automated recurring payment will be processed on 05.02 and for Subscriptions registered starting from 21.01 the first automated recurring payment will be processed on 05.03.
- **Plan end date:** The duration of agreement. Can be left undefined.
- **Trial period:** Free introductory window of time for customers on a recurring billing plan. Can be set by using 'Trial period length' and 'Trial period unit'.

## Add New Plan

State	Enabled
Name *	<input type="text"/>
Cycle price *	<input type="text"/>
Processing account *	<Nothing Selected>
Period as calendar synchronized	<input checked="" type="checkbox"/>
Cycle unit *	Days
Cycle length *	1
Billing day of period	1
Breakoff day ⓘ	1
End date	<input type="text"/>
Trial period type *	For Defined Period
Trial period length	<input type="text"/>
Trial period unit	<Nothing Selected>

## Creating Subscription Link/Template

LinkPay links can be tied to multiple Subscription Plans and Plans can have multiple Links (e.g. multi-language links for the same Plan).

The link language is stored together with the Subscription data, so that future communication with the user continues in correct language.

Creating a Link for Subscription is similar to creating a regular [Link](#) or [Template](#), except one or more of the Subscriptions Plans must be selected from the dropdown.

To create a Subscription Link:

- Enable **Subscription link checkbox** (if not already pre-selected with the template).
- Pick one or more of the **Subscription plans in the link creation / editing view**, if it is not already preset by the template. The selected plan **can be changed later** – this **will affect only new subscriptions** created through this link, all existing subscriptions will continue to use the Plan they were created with.
- Fields **'Customer name'** and **'Customer email'** **must be always present for Subscription Links**. This data is needed in order to tie the Plan to a Customer. The information can be viewed in Portal on Customers and Subscriptions page.
- Other fields can be defined as needed.

The created Subscription payment link allows customer to sign up for the service and/or make the initial payment. Following payments are then initiated automatically by EveryPay system using the schedule and amount described in the Plan.

## Subscription Link limits

Subscription link is subject to the same limits as a regular LinkPay link – if the allowed number of Subscriptions has been reached, then the link will deactivate. This counts the initial Subscriptions created via this link, not active subscriptions at any given time.

## LinkPay Subscription lifecycle events

After a customer follows the subscription link and successfully creates a Subscription, the following lifecycle begins:

1. Optional trial period
2. First payment
3. Periodic payments as per the Plan
4. Subscription ends:
  - Cancelled Subscription
    - by merchant
    - by failed payments (triggered automatically)
    - by customer
  - Subscription expires on Plan end date

## LinkPay Subscription Callbacks

In order to receive automatic notifications to Merchants' system a Merchant's URL for accepting callback requests must be defined in EveryPay Portal under E-Shop configuration (Settings -> E-Shop settings -> Subscription notification URL). Defining a Subscription notification URL will ensure that notifications on subscription lifecycle and payment events are sent to the specified URL. Those notifications enable to guard access to the resources or services based on the subscription state changes.

A Subscription can change its state according to the success of the periodic payments or other reasons. Subscription lifecycle event notifications are sent to the merchant if there are any changes in the Subscription's state. For example, Subscription can become cancelled or reactivated and knowledge of those events must also be relayed to the merchant.

Also for every payment for this Subscription, a notification is sent that indicates the payment outcome.

Each lifecycle notification consists of the following parameters:

Parameter	Description
time	Time of the event. Formatted according to the ISO 8601 standard.
subscription_token	Subscriptions unique ID
plan_token	Subscription's plan ID
customer_token	Subscription customer's unique ID
customer_name	Subscription customer's name
customer_email	Subscription customer's email
merchants_subscription_id	Unique subscription ID provided to a subscription by the merchant.
subscription_state	Current state of the subscription. Possible values are: <ul style="list-style-type: none"> <li>• active</li> <li>• cancelled_by_customer</li> <li>• cancelled_by_merchant</li> <li>• cancelled_by_failed_payment</li> <li>• failed_to_be_created</li> <li>• unsettled</li> </ul>
event_name	Subscription lifecycle event name. Possible values are: <ul style="list-style-type: none"> <li>• subscription_activated</li> <li>• subscription_cancelled_due_to_failed_payment</li> <li>• subscription_creation_failed</li> <li>• subscription_cancelled_by_customer</li> <li>• subscription_cancelled_by_merchant</li> <li>• subscription_unsettled</li> </ul>
nonce	Random unique value to prevent replay attacks
timestamp	Time of sending the event. Expressed as seconds from January 1, 1970 UTC

api_username	Merchant API username. The value can be found in Merchant Portal in the Settings section.
hmac_fields	Comma-separated alphabetically ordered list of parameter names that were used in HMAC calculation. See "EveryPay Payment API Documentation" document for the HMAC calculation reference.
hmac	HMAC checksum of the redirect parameters. See "EveryPay Payment API Documentation" document for the HMAC calculation reference.

## Creating URL-changeable LinkPay links

In order to meet more sophisticated needs it is possible to create and pre-fill the links on a system level. This functionality allows sending out unique payment links to customers without manually creating every link separately in EveryPay portal. It is only needed to define one general link (per use-case) with needed changeable parameters and all required values, such as needed for specific regular invoices as an example, can be pre-filled within URL. Such links can be used to send regular invoices to customers by using period-specific data (e.g variable amount and invoice number) with minimum effort to create the links and easy to use for the customers.

*Please note: the functionality is disabled by default. Please contact [support@every-pay.com](mailto:support@every-pay.com) to be able to define url-changeable parameters with your EveryPay account.*

### Setting up a general link

Setting up the link can be done via EveryPay portal.

- Define the set of payment details to be associated with the link.
  - determine which details you want to be modified by you (for example set unique order reference or invoice number for each link)
  - determine which details you want to predefine and that can't be changed by customer

- determine which details you want to leave open for your customers to fill in
- the field values can have both conditions available together - customer changeable and url changeable
- After creating a link a linkpay\_token is generated by EveryPay system that must be referred to when creating the following payment links

It is also possible to create [LinkPay Template](#) first and define link-specific details by using already defined specifics on a Template.

## HMAC calculation for the link

To ensure secure payment processing, Merchant must sign parts of the URL with their `api_secret` which will be verified by EveryPay during the payment request.

Definitions:

- URL := `schema://hostname\:port/path?query_string`
- Signature algorithm: HMAC-SHA256
- Signed parts: `query_string`
- Merchant must include token as part of query\_string:  
`token=<linkpay_token>`
- The `query_string` is URL-encoded by RFC3986 specification, with spaces encoded as `%20`.
- Name of signature param: `hmac`

The order of the params in the `query_string` does not matter – the string is taken as-is, while removing the `hmac` signature.

Steps to produce hmac:

1. create `query_string` from LinkPay token: `linkpay_token=<token>`
2. URL-encode all needed params
3. append params to the query string, e.g.  
`linkpay_token=<token>&order_reference=<ref>`
4. calculate HMAC-SHA256 signature of this `query_string` using the `api_secret` provided in the Portal.
5. append signature to the `query_string`:  
`linkpay_token=<token>&order_reference=<ref>&hmac=<signature>`
6. Combine the signed URL with LinkPay prefix to produce full URL:  
`https://pay.every-pay.eu/lp?linkpay_token=<token>&order_reference=<ref>&hmac=<signature>`

```
<?php
$api_secret = 'supersecret';
$linkpay_prefix = 'https://pay.every-pay.eu/lp';
$params = [
    'linkpay_token' => 'w23gd4',
```

```
'order_reference' => 'ord123',
'name' => 'Ester Tester',
'transaction_amount' => '5.00',
'email' => 'customer@example.com'
];

$query = http_build_query($params, null, '&', PHP_QUERY_RFC3986);

$hmac = hash_hmac('sha256', $query, $api_secret);

$url = "${linkpay_prefix}?${query}&hmac=${hmac}";
echo $url;

# outputs:
#
https://pay.every-pay.eu/lp?linkpay_token=w23gd4&order_reference=
ord123&name=Ester%20Tester&transaction_amount=5.00&email=customer
%40example.com&hmac=013f9e8fbabd1b73f4ab8b7b6abdd8f348da67100c4c8
7d7530a67957e75d16f
```