

**Elly POS
eCommerce
Custom
Integration
Manual**

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1. Introduction

Elly POS eCommerce is a Javascript based integration that allows merchants to process payments through Lab4Pay payment gateway. It is designed for ease of use with minimal configuration needed.

2. Installation

Include **lab4pay-widget.js** (download or direct link to lab4pay hosted file? **To be decided**) into your webpage before the closing `</body>` tag at the bottom of your page.

```
<scriptsrc="lab4pay-widget.js"></script>
```

3. Elly POS eCommerce Instance

To initialize payment process, create a new Elly POS eCommerce instance:

```
<script> var widget = new  
  Lab4Pay(configuration);  
</script>
```

3.1. Configuration of Elly POS eCommerce Instance

For the instance to work some configuration must be passed to the Elly POS eCommerce on initialization. Here is the list of all the configuration properties that the custom integration instance accepts:

Property	Type	Required	Default value	Description
Amount	Number	Yes		The amount to pay. Must be specified in lowest currency denomination (cents or pennies etc). For ex. to pay 10EUR an amount of 1000 should be entered.
Currency	String	Yes		ISO 4217 currency code format for the payment.
merchantReference	String	Yes		Custom generated reference to track payments, for ex. order id.
terminalId	String	Yes*		Terminal ID assigned to the merchant by Elly POS.
Secret	String	Yes*		Secret key assigned to the merchant by Elly POS.
testMode	Boolean	No	<i>false</i>	If set to true, the payments will be processed on Lab4Pay's test servers. Used for testing payments.
Lang	String	No	<i>sl-SI</i>	Language of the widget in ICU locale format. Currently supports Slovenian and English. <ul style="list-style-type: none">• sl-SI• en-US Will default to sl-SI if an invalid locale is passed.
successUrl	String	Yes		An absolute URL to redirect once the payment succeeded. Applies only to credit card payment types.
failureUrl	String	Yes		An absolute URL to redirect if the payment failure occurs. Applies only to credit card payment types.

reportUrl	String	No	Empty string	An absolute URL where to notify merchant with the transaction report.
customEndpoints	Object	No*	null	An object to specify your custom endpoints for the widget. Details below the table.
customEndpoints.getPaymentMethods	Function	Yes**		A function that returns an object implementing Promise interface that resolves with JSON data from Lab4Pay /payment-methods API. Details in section 4.
customEndpoints.startPayment	Function	Yes**		A function that returns an object implementing Promise interface that resolves with JSON data from Lab4Pay /payment API. A function receives a parameter with all the data required to start the payment. Details in section 4.
customEndpoints.getPaymentStatus	Function	Yes**		A function that returns an object implementing Promise interface that resolves with JSON data from Lab4Pay /payment/{transactionId} API. A function receives a parameter with transaction id. Details in section 4.
customEndpoints.getRedirectForm	Function	Yes**		A function that returns an object implementing Promise interface that resolves with data from Lab4Pay redirection API. A function receives a parameter with redirect URL. Details in section 4.

* **terminalId** and **secret** properties are not required if a **customEndpoints** object is provided or if **terminalId** and **secret** properties are not provided then **customEndpoints** object is required.

** Required as properties of **customEndpoints** object if provided.

3.2. Example of Elly POS eCommerce

Below is an example of a initialization with a payment of 10 EUR with terminal ID and secret properties passed as configuration.

```
<script>
var widget = new Lab4Pay({ amount:
1000, currency: 'EUR',
merchantReference:
'123test123', secret:
'merchantsecretkey', terminalId:
12345, successUrl:
'https://mywebshop.com/success', failureUrl:
'https://mywebshop.com/failure',
});
</script>
```

A popup will appear with payment methods that are enabled for the merchant on his account. No further work is needed by the merchant through the entire payment process.

3.3. Methods

While the custom integratin initialization is simple and no further work is needed, it can also be controlled through methods that it exposes.

Method	Parameter	Type	Description
setAmount	Amount	Number	Changes the amount to be paid in the lowest currency denomination (eg. cents or pennies)
setCurrency	Currency	String	Changes the payment currency. Must be an ISO 4217 currency code format.
destroy	/		Closes the eCommerce Custom integration Manual and removes itself from the page.

An example of destroying the Elly POS eCommerce Custom Integration:

```
<script> var widget = new
  Lab4Pay({
    ...configuration
  });
  widget.destroy();
</script>
```

3.4. Events

Throughout the entire payment cycle the Elly POS eCommerce also emits various events that can be attached to and perform other operations.

Event name	Description
lab4pay:widget.init	Triggers after the eCommerce Custom integration Manual is initialized.
lab4pay:widget.destroy	Triggers after the eCommerce Custom integration Manual is destroyed.
lab4pay:payment.listupdate	Triggers after the eCommerce Custom integration Manual receives a list of payment methods available to the merchant. A list of payment methods and its data is supplied with the event.
lab4pay:payment.statusupdate	Triggers after the payment status is updated. Payment status data object is supplied with the event.
lab4pay:payment.start	Triggers after the user selects a payment method. Payment data object is supplied with the event.
lab4pay:payment.redirect	Triggers before the user is redirected to the payment method.
lab4pay:payment.success	Triggers before redirected to the success page.
lab4pay:payment.failure	Triggers before redirected to the failure page.

An example showing how to display payment methods in console after the eCommerce updates a list of available payment methods:

```
<script> var widget = new
  Lab4Pay({ ...configuration
  }).on('lab4pay:payment.listupdate', function(data) {
    // Print the list of payment
    methods to console.
    console.log(data);
  }); </script>
```

4. Elly POS eCommerce API Instance

By providing **terminalId** and **secret** properties, the custom integration will perform all requests on the frontend directly with the Lab4Pay API servers including authentication. This means that the terminal ID and secret key assigned by Lab4Pay can be viewed by any page visitor which might not be what the merchant wishes. By skipping **terminalId** and **secret** properties and providing **customEndpoints** object allows the widget to call and receive necessary payment data from another source that handles authentication, calling Lab4Pay API endpoints and retrieving payment data.

4.1. Initialization

Let's assume that there is a merchant's server hosted at <https://example.com> and has implemented endpoints that handle authentication and communication with Lab4Pay.

The merchant has implemented the following endpoints:

- GET **/get-methods** Returns available payment methods
- POST **/start-payment** Creates and starts a new payment in the Lab4Pay system
- GET **/status/{payment-id}** Returns status of a payment
- POST **/get-redirect-form** Returns the redirection form HTML needed for credit card payment types.

If website uses jQuery library. Since jQuery AJAX object implements Promise interface its calls can be returned from functions defined in **customEndpoints** configuration object. Widget initialization for 10 EUR payment:

```
<script> var widget = new Lab4Pay({ amount:
1000, currency: 'EUR', merchantReference:
'abc123',
successUrl: 'https://example.com/success', failureUrl: 'https://example.com/failure', customEndpoints: {
  getPaymentMethods: function() {
    return jQuery.get('https://example.com/get-methods');
  },
  // Widget will pass data object required to start a payment to this function startPayment: function(data) {
  return jQuery.post('https://example.com/start-payment', data);
  },
  // Widget will pass transaction id of a payment that the widget requests its status
  getPaymentStatus: function(transactionId) { return jQuery.get('https://example.com/status/' +
transactionId);
  },
  // Widget will pass the url to this function where the form html can be retrieved getRedirectForm: function(url)
  {
    return jQuery.post('https://example.com/get-redirect-form', { redirectUrl: url,
  }
  }
  });
</script>
```

The custom endpoints should return the same JSON structure as the actual Lab4Pay API responses.

5. DOM Element Elly POS eCommerce Instance

Elly POS widget instance can be instantiated without assigning it to a variable or multiple instance of the widget can be created assigning it to the same variable. In that case the merchant does not have access to methods or events of the instance through a variable. When a widget instance is created a DOM element is created in the website before the closing `</body>` tag. This DOM element has a widget instance attached to it.

An example of a DOM element in the HTML created after widget initialization:

```
<div id="lab4pay-672b59ae-7c9e-4d0d-bbd6-68f92631b95c">...</div>
```

It is possible to access the widget instance through the DOM element's `lab4pay` property:

```
<script> var widget1 = document.getElementById('lab4pay-672b59ae-7c9e-4d0d-bbd6-68f92631b95c').lab4pay; </script>
```

6. Design

The Elly POS eCommerce already has a design provided that the merchant cannot change. By signing the contract, the desired payment methods selected by the merchant at the time of signing the contract are activated in the background. Design is presented below:

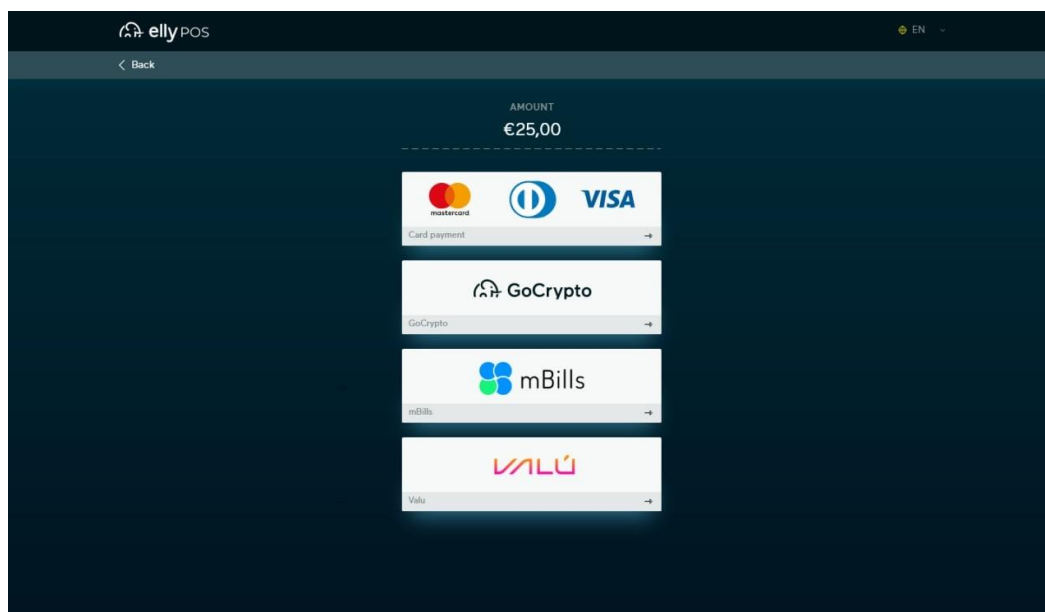
1. On the first page you can choose Other payment methods (Elly POS), that opens next screen.

Implementation of Elly POS as a payment method must be arranged on merchants' site, with his typography, Elly POS logo and he has to make sure that the name is in his sites language.

Other payment methods



2. Choice of a payment method



3. If a customer chooses card payment, a form for entering their card information will be presented to him on the next screen.

4. If the customer chooses GoCrypto, he is redirected to GoCrypto ecommerce gateway.

5. If the customer chooses mBills or VALÚ, a QR code is presented on the next screen.

7. Integration process

By choosing our Elly POS ecommerce, you will get all information in your email.

You will get:

- Link, for downloading the file,
- Terminal ID,
- Secret key.

Once you receive all information above, you can integrate the online store.