

# E-PRO

## Integration Guideline

Version 1.19

[2016-11-15]

## Change logs

Date	Description	Version
2016-11-15	3DS payment with card alias	<b>1.19</b>
2016-09-15	Adding Ecommerce page webservice	<b>1.18</b>
2016-08-11	Adding new Sofort payment provider.	<b>1.17</b>
2016-07-27	Partial refund feature.	<b>1.16</b>
2016-05-17	New limit error codes.	<b>1.15</b>
2016-04-04	Refund parameters fix.	<b>1.14</b>
2016-03-02	New mandatory fields for Ideal payments.	<b>1.13</b>
2015-12-08	Prohibition of TLS v1.0 for PCI-DSS 3.0.	<b>1.12</b>
2015-09-11	Adding new iDEAL payment provider.	<b>1.11</b>
2015-08-10	Maestro card require 3DSecure.	<b>1.10</b>
2015-07-27	Main acquirer errors description.	<b>1.9</b>
2015-02-13	New error codes.	<b>1.8.3</b>
2014-10-30	Mandatory use of TLS.	<b>1.8.2</b>
2014-10-02	Refunds create now a new transaction and "refunded" Status has been removed.	<b>1.8.1</b>
2014-10-09	New services addCard and removeCard.	<b>1.8</b>
2014-09-30	Information about Amount and ConvertCurrency parameters.	<b>1.7.3</b>
2014-09-11	New details about the notifications process and the standard response.	<b>1.7.2</b>

2014-09-01	New details and comments.	<b>1.7.1</b>
2014-07-31	Adding the parameter ConvertCurrency that allows a partner to let Epro automatically convert the OriginalAmount.	<b>1.7</b>
2014-06-12	New export service.	<b>1.6</b>
2014-04-04	Adding new response parameters.	<b>1.5</b>
2014-03-19	Adding the parameter Alias. It is possible to choose a credit card to make an Oneclick payment. New payment service "listcards".	<b>1.4</b>
2014-03-11	Adding more details about the different parameters.	<b>1.3</b>
2014-02-05	Clarifications about notifications and payment processing.	<b>1.2</b>
2014-01-29	Adding code samples.	<b>1.1</b>

## Table of contents

Change logs .....	2
Table of contents .....	4
Introduction .....	6
1. Requirement.....	6
2. Security.....	6
3. How it works.....	7
Methods overview .....	11
Standard responses .....	12
Direct payment.....	13
Oneclick payment.....	17
Ideal payment .....	18
Sofort payment .....	20
Credit cards list .....	22
Add credit card .....	23
Remove credit card.....	25
Payment status .....	26
Payment refund.....	27
Export transactions .....	28
Complementary API for e-commerce websites* .....	29
E-PRO payment page .....	30
Payment partial refund .....	32
Appendix.....	33
1. Calling the API.....	33
2. Direct payment example .....	34
3. Oneclick payment example .....	35
4. List credit cards example.....	36
5. Payment status example .....	37
6. Payment refund example.....	38
7. Export transactions sample .....	39
Error codes .....	40

Main acquirer errors ..... 44

## Introduction

E-PRO is a backend to backend API. It is working with normalized and standards REST-LIKE functions sending the request only with POST methods. The different responses from that API are JSON formatted. It allows to facilitate treatment and implementation.

### 1. Requirement

To begin using the E-PRO API, you should have received your API Key. It is forwarded by e-mail after creation of your E-PRO account. The API Key “EPRO-API-KEY” has to be added in the headers for every request. You will find samples in appendix 1 (Call the API).

You can get access in the future to your API key on the EMPCorp website <https://www.empcorp-lux.com/login> using your E-PRO account. It is available through the “All sites > Send API Key” button.

### 2. Security

The E-PRO API uses a secured and encrypted communication over the HTTPS protocol. This protocol uses a layer called SSL encryption that ensures the integrity and the confidentiality of all data transmitted over the TCP/IP network layer. The security is provided by an authentication certificate issued from an approved third party authority.

Following the discovery of a security flaw in SSLv2-3, TLS v1.1 or v1.2 must be used to call the API. TLS v1.0 has been disabled too, following the PCI-DSS 3.0 preconizations.

The security is increased by a second process in order to increase the safety of the services. All the requests are logged on the E-PRO side. This allows E-PRO to track and send you alerts when suspicious behaviors are detected.

Plus, you have to configure IP address list of your different servers which will be allowed to call E-PRO web services. You can find this option on the E-PRO portal in your account, Developer tab.

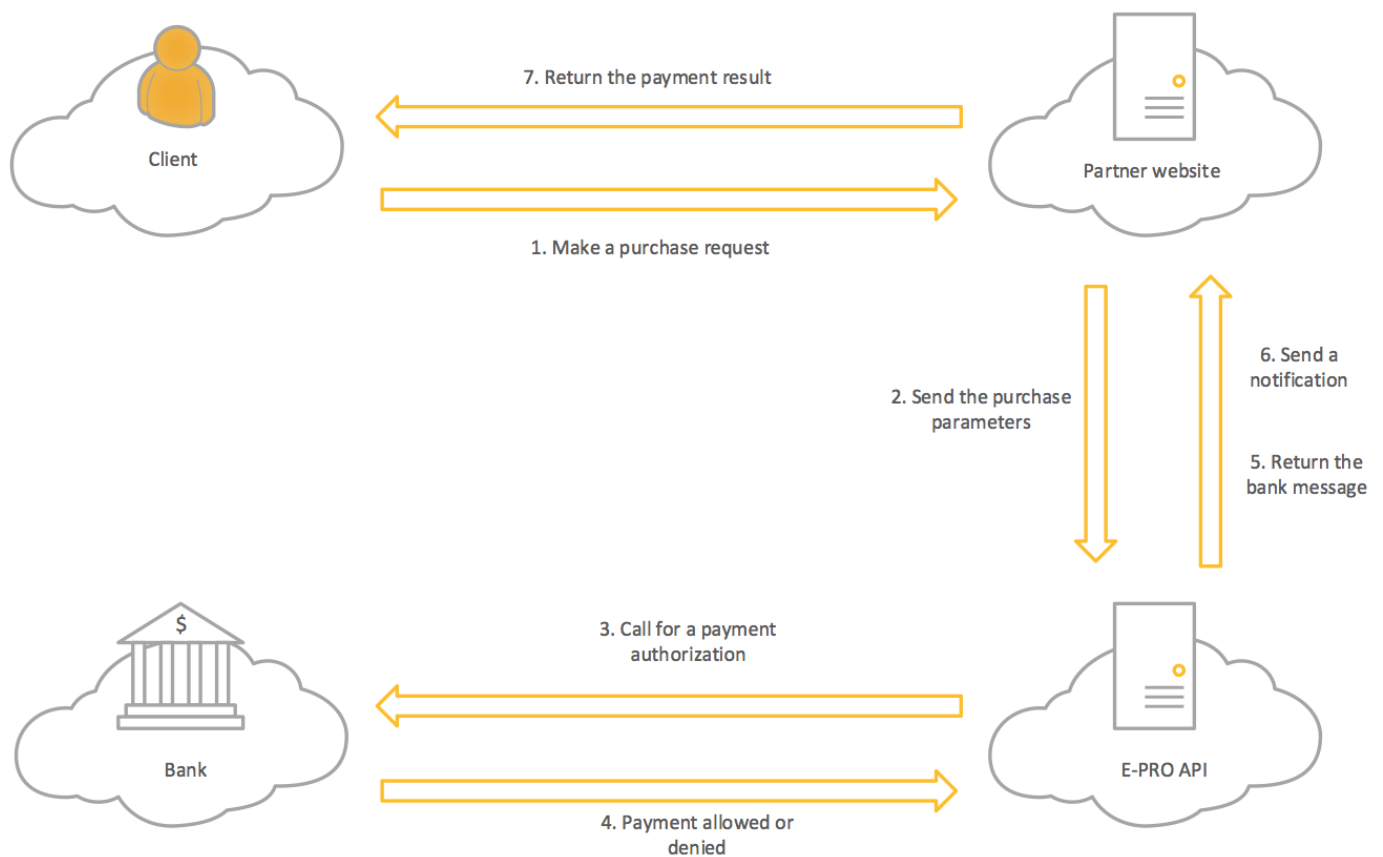
## 3. How it works

The E-PRO API works with eight key methods that allows you to perform all the necessary tasks:

- Direct payment
- Oneclick payment
- Ideal payment
- Credit cards list
- Add a new credit card
- Remove a credit card
- Payment status
- Payment refund
- Export transactions

The two following pages explain how E-PRO proceeds to execute a standard and a 3DSecure payment.

## Standard payment process

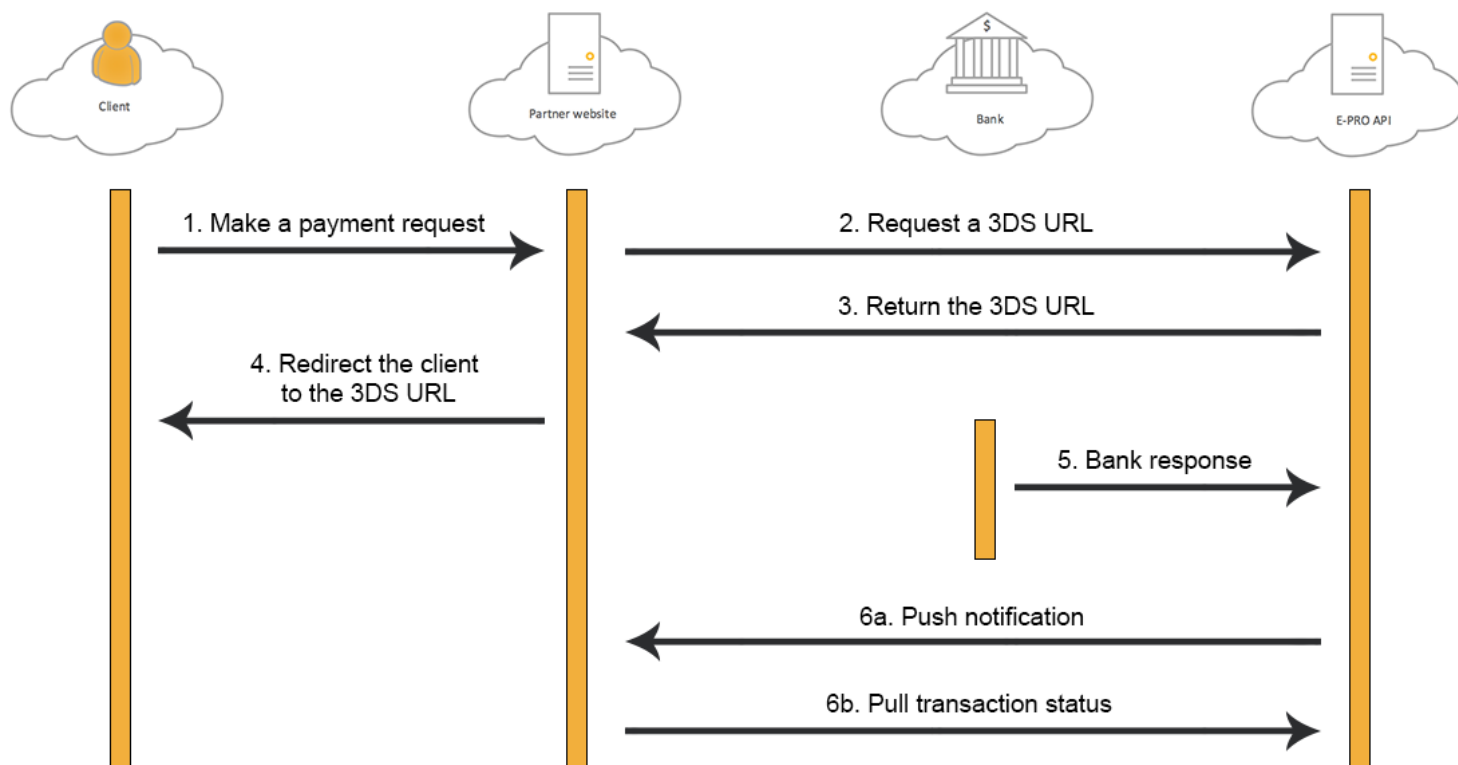


### Step by step:

1. The client is requesting a purchase on the merchant website.
2. The Merchant System calls the E-PRO API with the needed method (/payment/direct for example).
3. The E-PRO API asks a payment authorization from the bank.
4. The bank answers to the E-PRO API with a positive or a negative response.
5. The E-PRO API transfers the bank response to the partner.
6. If set in your account, the E-PRO API also calls your notification URL with the bank response as POST data.
7. The Merchant System returns the payment response to the client.



## 3DSecure payment process



### Step by step:

1. The client is requesting a purchase on the merchant website.
2. The Merchant System asks E-PRO for a 3DSecure page with the payment parameters.
3. The E-PRO API calls the bank and returns the 3DSecure URL to the Merchant System.
4. The partner website redirects the client to the 3DSecure URL.
5. The client must proceed to the card validation over the 3DSecure page. The bank approves or refuses the client request and returns the response to the E-PRO API.
6. You then have two possibilities in order to get your transaction status from the API:
  - a. If defined, the E-PRO API will call the notification URL with the bank response.
  - b. The Merchant System can call the E-PRO API to get the current transaction status.

## The Notification process

The notification process has been developed to add a real time track and monitor of your transactions. When a transaction is complete, there are two main methods to retrieve its informations: “pull” and “push”. These two methods can also be combined. Push notifications are recommended as they can be applied in a more general way.

- a. **“Pull” method:** Merchant System pulls the payment result from the E-PRO Payment Status service by invoking the “status” method.
- b. **“Push” method:** E-PRO API notifies asynchronously the Merchant System via POST call about the payment state changes. The merchant has to implement a specific page that handle the notification.

For each completed transaction process, a notification is sent asynchronously to the defined notification URL. The notification is sent with the POST HTTP method and contains the standard response parameters.

During a transaction, you can receive several notifications with different status. This means that a transaction can, in very rare cases, change from status “failed” to “captured”. On the other side, if a transaction is set to “captured”, it cannot come back to “failed” or “pending”. Pay close attention to credit your customers once even if you receive a “captured” status multiple times.

For various reasons, sometimes the push notification does not lead to your server. This is never 100% reliable. We recommend in this case to exceptionally use the pull method to fetch yourself the status of a transaction if you do not get a notification after several minutes. As a last resort, don’t hesitate to use the “export” service to check your daily transactions status.

You can easily define your notification URL by editing your account preferences over the E-PRO portal with the “All sites > Edit” button.

For more information about the notification request, please take a look page 10 (Standard responses).

## Methods overview

Interface	Description
/api/payment/direct	Performs a payment request.
/api/payment/oneclick	Performs a “one click” payment request.
/api/payment/ideal	Performs a payment using iDEAL provider.
/api/payment/listcards	Lists all the valid credit cards owned by a client.
/api/payment/addcard	Add a new credit card.
/api/payment/removecard	Remove a credit card.
/api/status	Requests for a transaction status.
/api/refund	Refunds a transaction.
/api/export	Export transactions.

- The **direct payment** request is a basic transaction. 3DSecure can be applied according to your account rights.
- The **one click payment** uses the same process as the direct payment process but without any credit card or client information (it has to be linked to the client before) and there is no user interaction.
- The **iDEAL payment** request uses iDEAL payment provider to initiate a transaction.
- The **list credit cards** service retrieves all the valid credit cards that a client has used during a direct payment or has manually added. You can then choose one of these to make an Oneclick payment.
- The **add credit card** service allows to add and validate a new credit. This card is available through the OneClick payment method.
- It is possible to **remove** a previously registered **credit card**. Its Alias is no longer available for future payments.
- The **status** request calls the API with a transaction reference and returns the status of the asked payment.
- The **refund** request will try to make a transaction refund if it's possible.
- The **export** request allows you to receive a CSV file about any transactions by email or on callback URL.

## Standard responses

The API responses are standardized and are always composed of the same JSON core structure, except for specific functions.

Parameter name	Details	Example	Always there
Status	The API request status. It only indicates if your request has been successfully transmitted.	pending	✓
Tid	Your own transaction identifier.	Abc100	✓
Reference	E-PRO unique reference identifier.	1-1386413490-0089-14	✓
Alias	Alias associated to the credit card used during the transaction. Can be used later for an OneClick payment.	111-2222-3333	✗
Amount	Amount of the transaction.	400	✓
UserId	Your unique user identifier.	Cde123	✓
Message	This message gives you more information about the current action.	Waiting 3Dsecure validation	✗
Error	This error is provided by the bank.	Invalid parameters	✗
3DSecureUrl	The 3DSecure URL where the client must be redirected.	<a href="https://www.empcorp-lux.com/api/3dsecure/XXXXXXXXX">https://www.empcorp-lux.com/api/3dsecure/XXXXXXXXX</a>	✗
Date	The transaction date.	YYYY-MM-DD HH:ii:ss	✓

The response structure changes whether the request has succeed or not. On a failed issue, the Error field is added to the answer. **This Error field comes from the bank and is only available for your information.**

**This parameter list is not exhaustive** and new tags can be added at any time. You must ensure that your application is as flexible as possible.

You can find some response examples on the appendix.

## Direct payment

<https://www.empcorp-lux.com/api/payment/direct>

Parameter name	Details	Example	Type	Mandatory
<b>Amount</b>	<b>Amount in cents</b> of the transaction.	1234 (12.34 € for example)	Int	*
<b>Uid</b>	<b>Your own client identifier.</b>	Abc123	Char 64	✓
<b>Tid</b>	<b>Your own transaction identifier.</b>	Cde100	Char 64	✓
<b>Email</b>	Client email address associated to the payment.	john@doe.com	Char 128	✓
<b>Firstname</b>	First name of the client.	John	Char 64	✓
<b>Lastname</b>	Last name of the client.	Doe	Char 64	✓
<b>CardNumber</b>	The credit card number.	1234567897654321	Int 16	✓
<b>CardMonth</b>	The card expiration month.	09	Int 2	✓
<b>CardYear</b>	The card expiration year.	2014	Int 4	✓
<b>CardCVV</b>	The card verification value.	123	Int 4	✓
<b>CardOwner</b>	First name and last name of the card owner.	John Doe	Char 64	✗
<b>ClientIp</b>	Client IP address.	89.184.22.134	Char 15	✓
<b>Description</b>	A short description of the transaction.	John transaction	Char 256	✗
<b>Address</b>	The client address.	26 green street	Char 128	*

<b>ZipCode</b>	The client zip code.	75001	Char 16	*
<b>City</b>	The client city.	Paris	Char 64	×
<b>Country</b>	The client country.	FRA (ISO 3166)	Char 3	*
<b>Phone</b>	The client phone number.	+1 123-456-7890	Char 32	×
<b>BirthDate</b>	The client birth date.	YYYY-MM-DD	Char 10	*
<b>BirthPlace</b>	The client birth place.	Paris	Char 64	×
<b>OriginalAmount</b>	<b>The original amount of the transaction before the change.</b>	10392 (103.92 kr)	Int	×
<b>OriginalCurrency</b>	<b>The currency used for the original amount.</b>	NOK (ISO 4217)	Char 3	×
<b>ConvertCurrency</b>	You can let Epro automatically convert your OriginalAmount to your MID's currency. You have to fill the parameter OriginalCurrency.	yes   no	Char	×
<b>ReturnUrl</b>	URL where the client is redirected after 3DSecure completion.	<a href="https://www.partner.com/3DS/">https://www.partner.com/3DS/</a>	Char 256	*
<b>3DS</b>	Use 3DSecure only.	yes   no	Char	*
<b>Alias</b>	If present, PAN and card expiry date are ignored and transaction is made with the card information associated to this alias	123-456-789	Char 32	×

**\* Situational:**

- Depending of your account configuration, some parameters can be mandatory (Address, ZipCode, Country, BirthDate) or this can cause in an error 222.
- The “ReturnURL” and the “3DS” parameters are linked and **must be used at the same time**. If you choose to use the 3DSecure process, you have to set the 3DS parameter to “yes” and you have to fill the “ReturnUrl” field with a valid URL.
- You have to request the support special credit cards numbers to make your 3DSecure test payments. Otherwise, your 3DSecure test payments will be considered as non-3DS transactions.

- The parameter Amount will be ignored and is not mandatory if ConvertCurrency is set to "yes". It will be automatically calculated by Epro.

Find code sample in appendix 2 (Direct payment sample).

#### **Information about 3DS with Alias:**

You can perform a 3DS transaction without credit card information but with Alias.

If Alias parameter is filled all credit card information are ignore except CardCVV.

Workflow is the same as a standard 3DS transaction, but only credit card CVV and Alias are needed in card details.

## The following information are applicable to all parameters in this documentation

**All the parameters are based on the ISO normalization.**

- Currency : ISO 4217  
<http://www.xe.com/iso4217.php>
- Country code : ISO 3166-1 alpha-3  
[http://en.wikipedia.org/wiki/ISO\\_3166-1\\_alpha-3](http://en.wikipedia.org/wiki/ISO_3166-1_alpha-3)
- Characters : ISO 8859-1  
[https://en.wikipedia.org/wiki/ISO/IEC\\_8859-1](https://en.wikipedia.org/wiki/ISO/IEC_8859-1)

All dates are at the local time of Europe/Paris UTC/GMT +1.

Currency rates are daily updated from the following website for automatic conversion:

<http://www.ecb.europa.eu/stats/exchange/eurofxref/html/index.en.html>.

**The Amount value must be a valid number, otherwise the transaction will fail. It represents the amount in the currency attached to your account. Each E-pro account uses only one currency.**

For example, if the transaction amount is 12.50€. The parameters have to be completed like this:

- Amount: 1250, Original Amount: 1250, Original Currency: EUR
- Amount: 1250, Original Amount: 10527, Original Currency: NOK

In this documentation, two particular parameters exist: Tid and Uid, they represent your internal reference and must be unique in your application.

- The Tid (transaction identifier) must be a unique reference. It is bound to **your** database.
- The Uid (user identifier) must be unique too. It represents **your** own client. If you are using the same Uid for multiple users, the API will update the client information (including Oneclick credit card) each time on a unique user.



## Oneclick payment

<https://www.empcorp-lux.com/api/payment/oneclick>

Parameter name	Details	Example	Type	Mandatory
<b>Amount</b>	Amount of the transaction.	2000 (20€ for example)	Int	*
<b>Uid</b>	<b>Your own client identifier.</b>	Abc123	Char 32	✓
<b>Tid</b>	<b>Your own transaction identifier.</b>	Cde100	Char 64	✓
<b>ClientIp</b>	Client IP address.	89.184.22.134	Char 15	✓
<b>Alias</b>	Allows you to choose which credit card use. If not defined, taking the most recent valid credit card.	123-456-789	Char 32	✗
<b>Description</b>	A short description of the transaction.	Transaction description	Char 256	✗
<b>OriginalAmount</b>	<b>The original amount of the transaction before the change.</b>	2000 (20€ for example)	Int	✗
<b>OriginalCurrency</b>	<b>The currency used for the original amount.</b>	EUR (ISO 4217)	Char 3	✗
<b>ConvertCurrency</b>	You can let Epro automatically convert your OriginalAmount to your MID's currency. You have to fill the parameter OriginalCurrency.	yes   no	Char	✗

Find code sample in appendix 3 (Oneclick payment sample).

## Ideal payment

<https://www.empcorp-lux.com/api/payment/ideal>

Parameter name	Details	Example	Type	Mandatory
Amount	Amount in cents of the transaction.	1234 (12.34 € for example)	Int	*
Uid	Your own client identifier.	Abc123	Char 64	✓
Tid	Your own transaction identifier.	Cde100	Char 64	✓
Email	Client email address associated to the payment.	john@doe.com	Char 128	✓
Firstname	First name of the client.	John	Char 64	✓
LastName	Last name of the client.	Doe	Char 64	✓
ClientIp	Client IP address.	89.184.22.134	Char 15	✓
Description	A short description of the transaction.	John transaction	Char 256	✗
Address	The client address.	26 green street	Char 128	✗
ZipCode	The client zip code.	75001	Char 16	✗
City	The client city.	Paris	Char 64	✗
Country	The client country.	FRA (ISO 3166)	Char 3	✗
Phone	The client phone number.	+1 123-456-7890	Char 32	✗
BirthDate	The client birth date.	YYYY-MM-DD	Char 10	✓
BirthPlace	The client birth place.	Paris	Char 64	✗

OriginalAmount	The original amount of the transaction before the change.	10392 (103.92 kr)	Int	×
OriginalCurrency	The currency used for the original amount.	NOK (ISO 4217)	Char 3	×
ConvertCurrency	You can let Epro automatically convert your OriginalAmount to your MID's currency. You have to fill the parameter OriginalCurrency.	yes   no	Char	×
ReturnUrl	URL where the client is redirected after iDEAL completion.	<a href="https://www.partner.com/ideal/">https://www.partner.com/ideal/</a>	Char 256	✓

An iDEAL payment works exactly like a 3DSecure request. You have to redirect your client on the “*IdealUrl*” found inside a successful response. Otherwise, the response is identical to the Direct payment.

## Sofort payment

<https://www.empcorp-lux.com/api/payment/sofort>

Parameter name	Details	Example	Type	Mandatory
Amount	Amount in cents of the transaction.	1234 (12.34 € for example)	Int	*
Uid	Your own client identifier.	Abc123	Char 64	✓
Tid	Your own transaction identifier.	Cde100	Char 64	✓
Email	Client email address associated to the payment.	john@doe.com	Char 128	✓
Firstname	First name of the client.	John	Char 64	✓
LastName	Last name of the client.	Doe	Char 64	✓
ClientIp	Client IP address.	89.184.22.134	Char 15	✓
Description	A short description of the transaction.	John transaction	Char 256	✗
Address	The client address.	26 green street	Char 128	✗
ZipCode	The client zip code.	75001	Char 16	✓
City	The client city.	Paris	Char 64	✓
Country	The client country.	FRA (ISO 3166)	Char 3	✓
Phone	The client phone number.	+1 123-456-7890	Char 32	✗
BirthDate	The client birth date.	YYYY-MM-DD	Char 10	✓
BirthPlace	The client birth place.	Paris	Char 64	✗

<b>OriginalAmount</b>	<b>The original amount of the transaction before the change.</b>	10392 (103.92 kr)	Int	×
<b>OriginalCurrency</b>	<b>The currency used for the original amount.</b>	NOK (ISO 4217)	Char 3	×
<b>ConvertCurrency</b>	You can let Epro automatically convert your OriginalAmount to your MID's currency. You have to fill the parameter OriginalCurrency.	yes   no	Char	×
<b>ReturnUrl</b>	URL where the client is redirected after Sofort completion.	<a href="https://www.partner.com/sofort/">https://www.partner.com/sofort/</a>	Char 256	✓

A Sofort payment works exactly like a 3DSecure request. You have to redirect your client on the “*SofortUrl*” found inside a successful response. Otherwise, the response is identical to the Direct payment.

## Credit cards list

<https://www.empcorp-lux.com/api/payment/listcards>

Parameter name	Details	Example	Type	Mandatory
Uid	Your client identifier.	Cde100	Char 32	✓

This function allows you to retrieve the complete list of available and valid credit cards owned by a single user. You can then use an Alias returned by the service to make an Oneclick payment.

Find code sample in appendix 4 (List credit cards).

## Add credit card

<https://www.empcorp-lux.com/api/payment/addcard>

Parameter name	Details	Example	Type	Mandatory
<b>Uid</b>	Your own client identifier.	Abc123	Char 64	✓
<b>Email</b>	Client email address associated to the payment.	john@doe.com	Char 128	✓
<b>Firstname</b>	First name of the client.	John	Char 64	✓
<b>Lastname</b>	Last name of the client.	Doe	Char 64	✓
<b>CardNumber</b>	The credit card number.	1234567897654321	Int 16	✓
<b>CardMonth</b>	The card expiration month.	09	Int 2	✓
<b>CardYear</b>	The card expiration year.	2014	Int 4	✓
<b>CardCVV</b>	The card verification value.	123	Int 4	✓
<b>CardOwner</b>	First name and last name of the card owner.	John Doe	Char 64	✗
<b>ClientIp</b>	Client IP address.	89.184.22.134	Char 15	✓
<b>Address</b>	The client address.	26 green street	Char 128	*
<b>ZipCode</b>	The client zip code.	75001	Char 16	*
<b>City</b>	The client city.	Paris	Char 64	✗
<b>Country</b>	The client country.	FRA (ISO 3166)	Char 3	*
<b>Phone</b>	The client phone number.	+1 123-456-7890	Char 32	✗

<b>BirthDate</b>	The client birth date.	YYYY-MM-DD	Char 10	*
<b>BirthPlace</b>	The client birth place.	Paris	Char 64	×

This service is useful if you need to add a credit card to a user e-wallet without the use of a first payment. If the credit card is already associated to your customer, the service simply return the matching Alias.



## Remove credit card

<https://www.empcorp-lux.com/api/payment/removecard>

Parameter name	Details	Example	Type	Mandatory
Alias	Alias of the credit card. Any credit card Alias can be returned through the ListCard method.	123-456-789	Char 32	✓

This function allows you to disable a previously registered credit card. The Alias is no longer available.

## Payment status

<https://www.empcorp-lux.com/api/status>

Parameter name	Details	Example	Type	Mandatory
Tid	Your transaction identifier.	Cde100	Char 64	*
Reference	E-PRO unique reference identifier.	1-1386413490-0089-14	Char 64	*

\* Only one parameter is required. If both are filled in, Reference will take precedence.

This function allows you to check the transaction status with your Tid **OR** with the E-PRO transaction reference.

This transaction status can have three states:

- ✓ captured
- ✓ pending
- ✓ failed

Find code sample in appendix 5 (Payment status).

## Payment refund

<https://www.empcorp-lux.com/api/refund>

Parameter name	Details	Example	Type	Mandatory
Tid	Your own transaction identifier.	Cde100	Char 64	*
Reference	E-PRO unique reference identifier.	1-1386413490-0089-14	Char 64	*

\* Only one parameter is required. If both are filled in, Reference will take precedence.

This function allows you to refund a transaction by Tid **OR** by transaction reference.

Find code sample in appendix 6 (Refund payment sample).

## Export transactions

<https://www.empcorp-lux.com/api/export>

Parameter name	Details	Example	Type	Mandatory
<b>Date</b>	Time interval for the export. Can be a complete month or a day.	2014-06 2014-05-02	Char 10	✓
<b>Email</b>	Email to send the export.	finances@corp.com	Char 128	*
<b>CallbackUrl</b>	Export will be sent by HTTP request.	https://www...	Char 256	*
<b>Status</b>	Filter transactions by their current status. Takes all transactions by default.	Captured   failed	Char 8	✗
<b>Chargeback</b>	By default, do a normal export. Use this field if you want an export including only chargebacks.	yes   no	Char 3	✗
<b>Group</b>	By default, do an export of the site associated to your API Key. Use this field if you want an export from all your group sites.	yes   no	Char 3	✗

\* One parameter is required but both can be filled, export will be sent by email and on the callback URL.

This function allows you to export transactions within a time interval. Your export will be sent asynchronously as a zipped CSV.

Find code sample in appendix 7 (Export transactions sample).

## Complementary API for e-commerce websites\*

\* Please note that those API functions only work for MID set to e-commerce, please contact [support@movidone.com](mailto:support@movidone.com) if you need more information.

## E-PRO payment page

<https://www.empcorp-lux.com/api/payment/page>

Parameter name	Details	Example	Type	Mandatory
Amount	Amount in cents of the transaction.	1234 (12.34 € for example)	Int	*
Uid	Your own client identifier.	Abc123	Char 64	✓
Tid	Your own transaction identifier.	Cde100	Char 64	✓
Email	Client email address associated to the payment.	john@doe.com	Char 128	✓
Firstname	First name of the client.	John	Char 64	✓
Lastname	Last name of the client.	Doe	Char 64	✓
ClientIp	Client IP address.	89.184.22.134	Char 15	✓
Description	A short description of the transaction.	John transaction	Char 256	✗
Address	The client address.	26 green street	Char 128	✗
ZipCode	The client zip code.	75001	Char 16	✓
City	The client city.	Paris	Char 64	✓
Country	The client country.	FRA (ISO 3166)	Char 3	✓
Phone	The client phone number.	+1 123-456-7890	Char 32	✗
BirthDate	The client birth date.	YYYY-MM-DD	Char 10	✓
BirthPlace	The client birth place.	Paris	Char 64	✗

OriginalAmount	The original amount of the transaction before the change.	10392 (103.92 kr)	Int	×
OriginalCurrency	The currency used for the original amount.	NOK (ISO 4217)	Char 3	×
ConvertCurrency	You can let Epro automatically convert your OriginalAmount to your MID's currency. You have to fill the parameter OriginalCurrency.	yes   no	Char	×
ReturnUrl	URL where the client is redirected after payment page completion.	<a href="https://www.partner.com/paymentpage/">https://www.partner.com/paymentpage/</a>	Char 256	✓

A payment by EPRO payment page works exactly like a 3DSecure request. You have to redirect your client on the “*PaymentUrl*” found inside a successful response. Otherwise, the response is identical to the Direct payment.

## Payment partial refund

<https://www.empcorp-lux.com/api/refund>

Parameter name	Details	Example	Type	Mandatory
<b>Tid</b>	<b>Your own transaction identifier.</b>	Cde100	Char 64	*
<b>Reference</b>	E-PRO unique reference identifier.	1-1386413490-0089-14	Char 64	*
<b>Amount</b>	Amount in cents of the refund. By default, the total amount is refunded.	1234 (12.34 € for example)	Int	×
<b>Currency</b>	The currency used for the original transaction.	EUR (ISO 4217)	Char 3	×

\* Only one parameter is required. If both are filled in, Reference will take precedence.

This function allows you to refund a transaction by Tid **OR** by transaction reference.

Find code sample in appendix 6 (Refund payment sample).



# Appendix

## 1. Calling the API

A function to call the REST E-PRO API using POST method has to be created. You have to use TLSv1.1 or TLSv1.2 to call the API. For example, you can use the cURL feature like the following PHP sample.

**Don't forget to add the EPRO-API-KEY parameter to your request header.**

```
<?php
function call($function, $params)
{
    $curl = curl_init();
    curl_setopt($curl, CURLOPT_HTTPHEADER, array(
        'EPRO-API-KEY:YOUR-API-KEY-HERE'
    ));

    curl_setopt($curl, CURLOPT_POST, true);
    curl_setopt($curl, CURLOPT_RETURNTRANSFER, true);
    curl_setopt($curl, CURLOPT_URL, $function);
    curl_setopt($curl, CURLOPT_SSLVERSION, CURL_SSLVERSION_TLSv1);

    if ($params) {
        curl_setopt($curl, CURLOPT_POSTFIELDS, http_build_query($params));
    }

    $return = curl_exec($curl);
    echo $return;

    curl_close($curl);
}
?>
```

Using this sample function, you can call all the E-PRO API methods.

## 2. Direct payment example

How to call the direct payment function in PHP using the function described page 10:

```
<?php
call('https://www.empcorp-lux.com/api/payment/direct', array(
    'Amount' => 1058,
    'Uid' => 'Abc123',
    'Tid' => 'Cde100',
    'Email' => 'john.doe@mail.com',
    'Firstname' => 'John',
    'Lastname' => 'Doe',
    'CardNumber' => '1234567788654321',
    'CardMonth' => '09',
    'CardYear' => '2014',
    'CardCVV' => '123',
    'ClientIp' => '82.123.231.132'
));
?>
```

The associated response:

```
"Code":0,
"Result":{
    "OperationType":"payment",
    "Status":"captured",
    "Tid":"Cde100",
    "Reference":"1-1386413490-0089-14",
    "Amount":10.58,
    "UserId":"Abc123",
    "Message":"Payment was successful",
    "Date":"2013-12-10 10:23:54",
    "3DSecure": "no",
    "OneClick": "no"
}
```

## 3. Oneclick payment example

How to call the oneclick payment function in PHP using the function described page 13:

```
<?php
call('https://www.empcorp-lux.com/api/payment/oneclick', array(
    'Amount' => 4253,
    'Uid' => 'Abc123',
    'Tid' => 'Cde101',
    'ClientIp' => '82.123.231.132'
));
?>
```

The associated response:

```
"Code":0,
"Result":{
    "OperationType":"payment",
    "Status":"pending",
    "Tid":"Cde101",
    "Reference":"1-1386413490-0089-15",
    "Amount":42.53,
    "UserId":"Abc123",
    "Message":"Payment pending",
    "Date":"2013-12-10 10:23:54",
    "3DSecure": "no",
    "OneClick": "no"
}
```

## 4. List credit cards example

How to call the list credit cards function in PHP using the function described page 14:

```
<?php
call('https://www.empcorp-lux.com/api/payment/listcards', array(
    'Uid' => 'Abc123'
));
?>
```

The associated response:

```
"Code":0,
"Result":{
    "Alias":"111-222-333",
    "CardNumber":"1111*****1111",
    "ExpiryMonth":"01",
    "ExpiryYear":"2015",
    "Type":"VISA",
    "Country":"FRA",
    "DateAdded":"2014-01-20 11:08:04"}
}
```

## 5. Payment status example

How to call the payment status function in PHP using the function described page 15:

```
<?php
call('https://www.empcorp-lux.com/api/status', array(
    'Tid' => 'Cde102'
));
?>
```

And the associated response:

```
"Code":0,
"Result":{
    "OperationType":"payment",
    "Status":"pending",
    "Tid":"Cde102",
    "Reference":"1-1386413491-0184-15",
    "Amount":10.58,
    "UserId":"Abc123",
    "Message":"Payment was successful",
    "Date":"2013-12-10 10:23:54",
    "3DSecure": "no",
    "OneClick": "no"
}
```

## 6. Payment refund example

How to call the payment refund function in PHP using the function detailed page 16:

```
<?php
call('https://www.empcorp-lux.com/api/refund', array(
    'Tid' => 'Cde103'
));
?>
```

The associated response:

```
"Code":0,
"Result":{
  "OperationType":"payment",
  "Status":"captured",
  "Tid":"Cde103",
  "Reference":"1-1386413492-2049-15",
  "Amount":40.00,
  "UserId":"Abc123",
  "Message":"Payment refunded",
  "Date":"2013-12-10 10:23:54",
  "RefundReference": "1-1386413863-2020-15",
  "DateRefunded": "2013-12-11 12:23:54",
  "3DSecure": "no",
  "OneClick": "no"
}
```

## 7. Export transactions sample

How to call the export transactions function in PHP using the function detailed page 17:

```
<?php
call('https://www.empcorp-lux.com/api/export', array(
    'Date' => '2014-06-12',
    'CallbackUrl' => 'https://www.company.com/epro-export',
    'Group' => 'yes'
));
?>
```

The associated response:

```
"Code":0,
"Result":{
    "Identifier":"YOUR_GROUP",
    "CallbackUrl":"https://www.company.com/epro-export",
    "StartDate":"2014-06-12",
    "EndDate":"2014-06-12",
    "Status":"all",
    "Group":"yes",
    "Chargeback":"no"
}
```

## Error codes

Error code	Details
1	Invalid request
2	Invalid protocol, HTTPS must be used
3	Invalid API key
4	API key is not supplied
5	Missing parameters
6	Incorrect merchant configuration
7	Oneclick payments not allowed on this account
8	3DSecure payments not allowed on this account
9	Evoucher purchase not allowed on this account
10	Service unavailable
11	Server IP address not allowed
12	Transaction declined by merchant
13	Transaction declined by merchant
14	Transaction declined by merchant
15	Your account is 3DS only, please use 3DS=yes
16	Your account is VIC only, please use VIC=yes
17	A payment must be either 3DS or VIC
18	VIC payments not allowed on this account
19	Oneclick payments not supported on this account
20	3DSecure payments not supported on this account
21	Incorrect merchant configuration, please contact us
22	Maestro cards require 3DSecure
23	MasterCard transactions not supported
24	iDEAL payments not supported on this account
25	Only iDEAL payment are supported on this account
26	Prepaid, gift and virtual cards not supported on this account



27	Unknown BIN
100	Client not found
101	Can't create client, contact us if the problem persists
102	Transaction not found
103	Invalid transaction
104	TID already used for another transaction
105	OneClick payment impossible, no credit card found for the given UID
106	ReturnUrl is mandatory with 3DS enabled
107	This user is not allowed to make any payment
108	No valid credit card found for the given UID
109	This user is not allowed to make any payment
110	Can't add a card for this client, contact us if the problem persists
111	No credit card found for this Alias
112	This user is not allowed to make any payment
113	This user is not allowed to make any payment
114	Incorrect value Amount, greater than maximum refund for this transaction
115	Partial refund not allowed for this transaction
116	Partial refund needs to be done in the transaction's currency
117	Transaction already refunded
118	Only one partial refund can be done, full refund only can be done from now for this transaction
119	Parameter Firstname and Lastname must be different
120	This user is not allowed to make any payment
121	This user have already exceeded the maximum allowed refund
150	Export failed or being generated, please try again later
151	Invalid parameter ChargebackUrl, do not forget protocol
152	Invalid parameter Date, supported formats are YYYY-MM or YYYY-MM-DD
200	Invalid parameter Amount, must be numeric only (1052 for 10.52 euros)
201	Invalid parameter Uid, must only contain [a-zA-Z0-9-_-]

202	Invalid parameter Tid, must only contain [a-zA-Z0-9- _]
203	Invalid parameter Email
204	Invalid parameter Firstname or Lastname, must only contain [a-zA-Z- ] with or without accents
205	Invalid parameter ClientIP
206	Invalid parameter CardNumber, check format or Luhn algorithm
207	Invalid parameter CardMonth or CardYear, month is always composed of 2 digits and year of 4 digits
208	Invalid parameter CardCVV, must contain 3 or 4 digits
209	Invalid or missing parameter CallingCode, it should be numeric only
210	Invalid parameter CardOwner, must only contain [a-zA-Z- ] with or without accents
211	Invalid parameter Address, must only contain [a-zA-Z0-9- _] with or without accents
212	Invalid parameter ZipCode, must only contain [a-zA-Z0-9- _]
213	Invalid parameter City, must only contain [a-zA-Z- _] with or without accents
214	Invalid parameter Country, check ISO 3166-1 Alpha-3
215	Invalid parameter Phone
216	Invalid parameter BirthDate, check format YYYY-MM-DD
217	Invalid parameter BirthPlace, must only contain [a-zA-Z- _] with or without accents
218	Invalid parameter returnUrl, do not forget protocol
219	Invalid parameter OriginalAmount, must be numeric only (1052 for 10.52 euros)
220	Invalid parameter OriginalCurrency, check ISO 4217
221	Invalid parameter Alias
222	These fields are mandatory with your payment account
223	Invalid parameter BankAddress, must only contain [a-zA-Z0-9- _] with or without accents
224	Invalid parameter Currency, check ISO 4217
300	Parameter Amount exceeds the maximum allowed by transaction
301	Maximum number of transactions per day per credit card reached

302	Maximum amount per week per credit card reached
303	Maximum number of iDEAL transactions per day per email reached
304	Maximum amount of iDEAL per week per email reached
305	Maximum of failed transactions per day per email reached
306	Maximum of different valid credit cards per email reached
307	Maximum amount per email reached
400	MerchantID currency conversion not supported
401	OriginalCurrency must be filled if you want Epro to convert your currency
402	OriginalAmount must be filled if you want Epro to convert your currency
403	OriginalCurrency conversion is not currently supported
404	OriginalCurrency, OriginalAmount and ConvertCurrency are only available on EUR accounts
500	Error while sending SMS to the customer

## Main acquirer errors

Error Message	Origin	Short description	Action
Decline CVV failure	Customer input	Declined by the bank due to wrong CVV	Inform customer "Wrong CVC"
Lost Card, No pickup	Bank	Card lost	Nothing to do
Invalid transaction card/issuer/acquirer	Bank	Generally, this error appears when the bank refused the transaction and want to keep secret the decline reason. Unfortunately, we can't find more informations regarding this error.	Nothing do to
Do not honor	Bank	This is an internal reason given by the customer bank, it's probably related to an internal bank rules. Your customer is able to find why his transaction was refused by contacting his bank.	Customer have to ask his bank
Hot card, pickup	Bank	Card is highly suspected to be picked up	Nothing do to
Exceeds amount limit	EPRO	The customer card limit has been reached	Change it to VIP if needed in your EPRO account, otherwise the behavior is correct
Expired card	Customer input	The customer card is no longer valid.	Nothing to do
Transaction not permitted on card	Bank	The bank refused the operation - the real reason is kept secret by the customer bank. The customer can contact his bank and ask the reason to the bank.	Customer have to ask his bank

Invalid card number

Customer input	The card number is invalid.	Inform the customer "Invalid card number"
----------------	-----------------------------	---

Pickup card

Bank	The card has been picked up	Nothing to do
------	-----------------------------	---------------