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# Datatrans eCom Technical Implementation Guide

For Payment APIs  
V 9.2.3

To guarantee a proper implementation of the Datatrans Payment Solution make sure to read the following documents carefully:

- General Information
- Technical Implementation Guide

Please use only the latest version of these documents. Both are available at <http://www.datatrans.ch/en/Payment-solutions/Technical-information/>

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## Revision Control

Version	Date	Changed by	Comments / nature of change
8.43	03.03.15	Christoph Ryser	2.7 Remove Parameter uppMobileMode 2.7 Added parameter merchantAgbLink 4.12.2 Details for settlement of Swisscom Easypay
8.44	30.03.15	Dominik Mengelt	Updated company address
9.0	30.03.15	Dominik Mengelt	2.2 Added Payment Pages description 2.8 Custom theming of the payment page
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9.1.2	30.06.15	Dominik Mengelt	Added backup URL payment.datatrans2.biz
9.1.3	02.07.15	Dominik Mengelt	4.14 Added Twint Wallet section Minor corrections
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9.1.15	02.03.2016	Catalin Ciochina	4.16.3 Added uppCustomerEmail parameter for Accarda Kauf-auf Rechnung
9.1.16	06.04.2016	Catalin Ciochina	4.5.1 Added Paysafecard mandatory parameter
9.1.17	28.04.2016	Pavel Janecek	2.7, 4.13.3 Added optional parameter uppDiscountAmount
9.1.18	04.05.2016	Manuel Höhn	7.6 Added PayPal manuals in DE and FR
9.2.0	06.05.2016	Dominik Mengelt	2.6 "sign" now a mandatory parameter
9.2.1	07.07.2016	Catalin Ciochina	4.17.1 Refno input parameter must be unique
9.2.2	25.07.2016	Dominik Mengelt	2.1 Added Health Check URLs for pilot and production environments
9.2.3	30.08.2016	Dominik Mengelt	4.6 Paycard specifications (MPA, MPG, MPX) mode=forceRedirect Parameter

# 1 Introduction

## 1.1 About this document

This document gives you an overview about the implementation of our interface and its parameters and helps you to implement all the options to process a transaction properly.

\* The most common problems with the payment process are doubled or missing transactions.

This kind of problems is in most of the cases the consequence of improper payment process implementation.

We highly recommend reading the document "General Information about the payment process with Datatrans".

✓ In description of field types following acronyms are used:

Value	Meaning	Example
N	Numeric value	1234
DN	Decimal number	13.37
A	Alphabetic value	Abc
AN	Alphanumeric value	Abs123
MM	Month	03 (for March)
YY	Year	11 (for 2011)
N8	Numeric value of length 8	33145687

✓ There are also some code examples on <http://www.datatrans.ch/showcase/> which are useful for a basic implementation.

## 1.2 Restrictions and regulations

### 1.2.1 Recommendations

Please note that we do not recommend using iFrames for external payment methods.

Refer to [this chapter](#) for the details which are external payment methods and which are not.

### 1.2.2 Forbidden expressions in parameter values

Do not use the following expressions in parameter values:

*Script, onload, onunload, onclick, ondblclick, onkey, onmouse, onfocus, onblur, onselect, onchange*

### 1.2.3 Forbidden parameter name

Do not use the following expression as parameter name:

*submit*



#### 1.2.4 Others

The payment has to be processed in a visible frame with a minimum size of 390 x 400 pixels.  
We do not send parameters back to a return URL that ends with .html or .htm. Please use all other endings.

#### 1.2.5 Special characters

Use ASCII for the reference number. Special characters in the "refno" will be changed as follows:  
ä, ö, ü, â, é, è to a, o, u, a, e and so on.

#### 1.2.6 Undocumented features

Please note that undocumented features can be changed or disabled by Datatrans at any time.  
We highly recommend implementing your interface to Datatrans according to our specifications to guarantee a proper payment process.

#### 1.2.7 Service- and returnURLs

All service and return URLs (Post URL, Success URL, Error URL, Cancel URL) are restricted to the ports 80 (http) and 443 (https)

## 2 Authorization

### 2.1 Process overview

The UPP interface directs the consumer to the URL of the service provider and posts the parameters.

The final payment transaction response reaches the merchant in two ways:

- **Response URL**  
The consumer is directed with posted parameters back to the merchant (to the URL of his choice).
- **Post URL**  
If a Post URL is used, parallel to the call of the merchant's web page, the transaction response is directly sent to the server application of the merchant.

Starting the payment service, the merchant's application directs the consumer to the service URL (e.g. form action) and passes all mandatory and optional parameters to the service.

Once the transaction is completed, the consumer is directed back to the **return URL** of the shop application.

#### 2.1.1 Test Environment

##### Service URLs:

- UTF-8 encoding: <https://pilot.datatrans.biz/upp/jsp/upStart.jsp>
- ISO encoding: <https://pilot.datatrans.biz/upp/jsp/upStartIso.jsp>

##### Health check URLs:

- <https://pilot.datatrans.biz/upp/check>

#### 2.1.2 Production Environment

##### Service URLs:

- UTF-8 encoding: <https://payment.datatrans.biz/upp/jsp/upStart.jsp>
- ISO encoding: <https://payment.datatrans.biz/upp/jsp/upStartIso.jsp>

##### Backup Service URLs:

The backup service URLs can be used in a failover scenario when the primary URLs are not reachable.

- UTF-8 encoding: <https://payment.datatrans2.biz/upp/jsp/upStart.jsp>
- ISO encoding: <https://payment.datatrans2.biz/upp/jsp/upStartIso.jsp>

##### Health check URLs:

- <https://payment.datatrans.biz/upp/check>
- <https://payment.datatrans2.biz/upp/check>

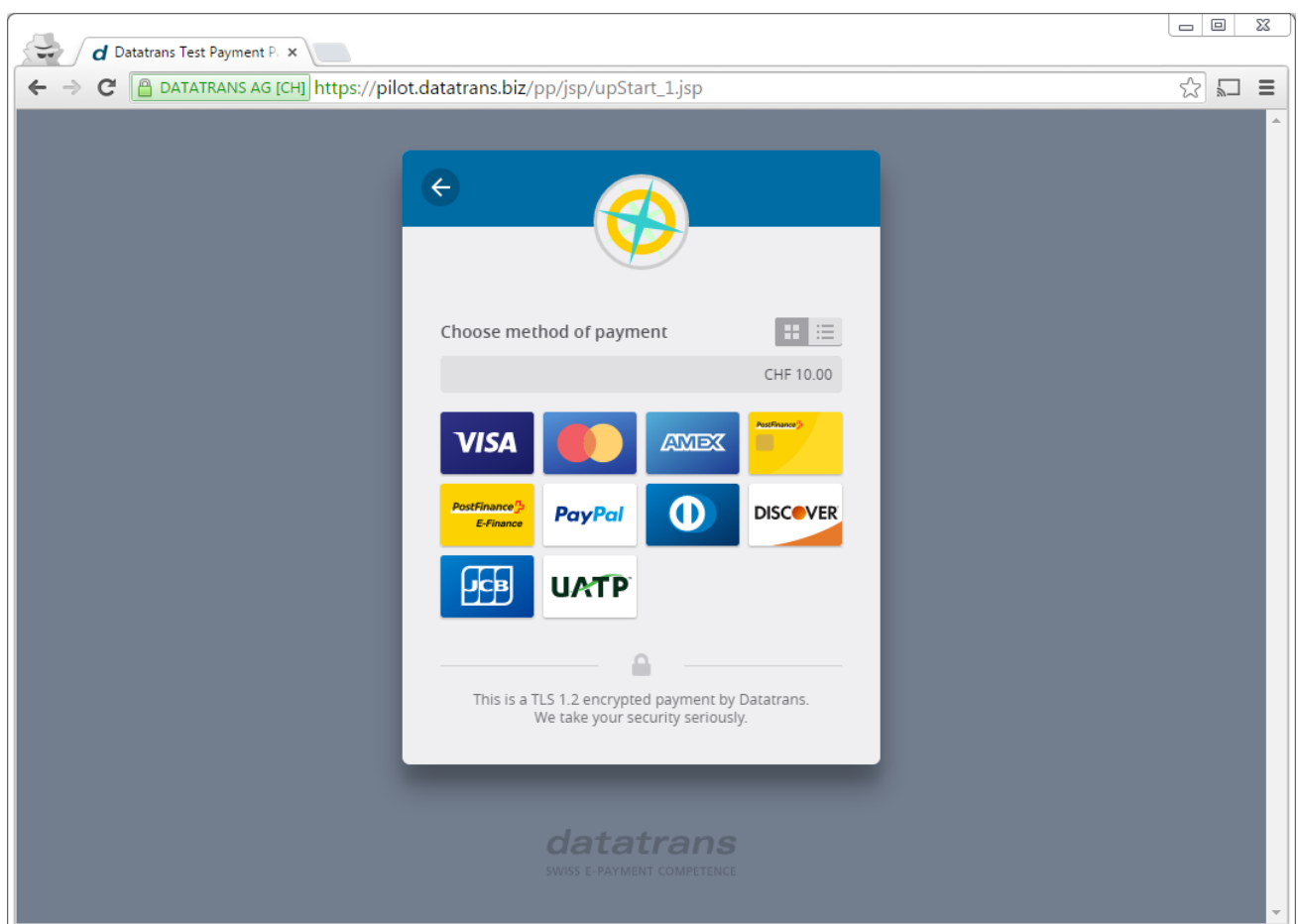
## 2.2 Payment Pages

The merchant has the possibility to choose from two different integrations of the payment page. Both, the Redirect and the Lightbox Mode can be themed individually.

### 2.2.1 Redirect Mode

<https://www.datatrans.ch/showcase/authorisation/redirect-mode>

When using the Redirect Mode the merchant performs a redirect (with all the needed parameters) to the Datatrans Payment page. The whole payment process is handled by the Datatrans web application.



## Integration

Sampe integration: <https://www.datatrans.ch/showcase/authorisation/redirect-mode>

This example uses a form POST to trigger the redirect mode:

```
<form id="paymentForm" action="https://pilot.datatrans.biz/pp/jsp/upStart.jsp" method="post">
```

The merchant needs to submit the theme parameter in order to activate the payment pages. For example:

```
<input type="hidden" name="theme" value="DT2015">
```

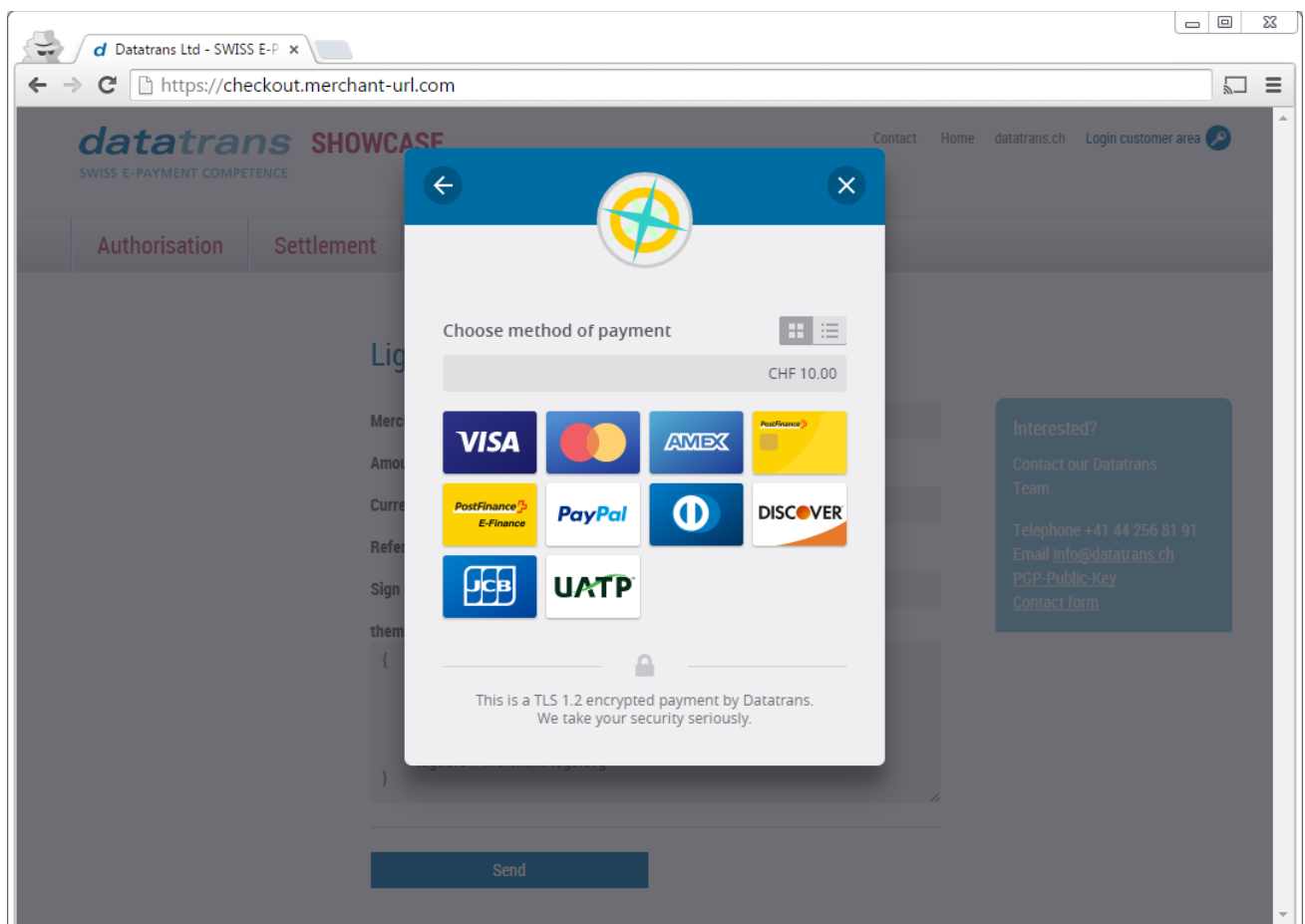
It is possible to set this parameter as a default for every request. Please contact us for further information.

### 2.2.2 Lightbox Mode

<https://www.datatrans.ch/showcase/authorisation/lightbox-mode>

The Lightbox approach uses an iframe to embed the payment pages as an overlay to your online shop. When the Lightbox Mode is invoked the merchant's online shop is darkened out and the payment page appears as a floating element on top.

\* The merchant's URL remains in the browser address bar.



## Integration

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The merchant can use the following code snippet to integrate the lightbox mode:

```
<script src="https://code.jquery.com/jquery-1.11.2.min.js"></script>
<script src="https://pilot.datatrans.biz/upp/payment/js/datatrans-1.0.2.js"></script>

<form id="paymentForm"
      data-merchant-id="1100004624"
      data-amount="1000"
      data-currency="CHF"
      data-refno="123456789"
      data-sign="30916165706580013">
  <button id="paymentButton">Pay</button>
</form>

<script type="text/javascript">
  $( "#paymentButton" ).click(function () {
    Datatrans.startPayment({ 'form': '#paymentForm' });
  });
</script>
```

Script URLs:

<b>Test</b>	https://pilot.datatrans.biz/upp/payment/js/datatrans-1.0.2.js
<b>Production</b>	https://payment.datatrans.biz/upp/payment/js/datatrans-1.0.2.js

Additional data attributes need to be added to the form tag if other parameters are needed. Some examples:

Parameter	Form attribute
paymentmethod	data-paymentmethod="VIS, ECA, AMX"
uppWebResponseMethod	data-upp-web-response-method="GET"

### Callbacks

The lightbox mode supports a number of callbacks to give the merchant the possibility to react to various states of the payment page:

Callback	Description
opened	function() The callback to invoke when the payment page is opened.
loaded	function() The callback to invoke when the payment page is loaded.
closed	function() The callback to invoke when the payment page is closed.

### 2.2.3 Theming

Both modes of the payment page allow individual styling. Please refer to the *themeConfiguration* parameter within the “Personalization of the payment page” chapter.

## 2.3 Inline Mode

<https://www.datatrans.ch/showcase/authorisation/inline-mode>

The inline mode allows seamless integration into the merchant's checkout process. The merchant does the payment method selection on his own page and uses an iframe to show the payment form where the consumer can enter the payment details.

### Integration

```
<iframe width="600"
  height="500"
  frameborder="0"
  border="0"
  src="https://pilot.datatrans.biz/upp/jsp/upStart.jsp
      ?theme=Inline
      &paymentmethod=VIS
      &merchantId=1100004547
      &refno=1337
      &amount=1000
      &currency=CHF
      &customTheme=mytheme">
```

The merchant can adjust the style of the payment form by applying custom CSS. For this the merchant has to submit a CSS file to Datatrans. An example can be found here:

<https://pilot.datatrans.biz/upp/assets/touch/custom/1100004547.css>

The value of the customTheme parameter ('mytheme' in the example above) has to match the classname within the submitted CSS file.

## 2.4 Browser compatibility list

The following table shows the browsers which are compatible with the redirect and lightbox mode. If browsers with a lower major version are being detected the fallback mode of the payment page is getting displayed.

Browser	Version
Chrome	>=28
Chrome Mobile	>=28
Firefox	>=31
Firefox Mobile	>=31
Internet Explorer	>=9
Internet Explorer Mobile	>=9
Safari	>=6
Safari Mobile	>=6
Opera	>=24
Opera Mobile	>=22
Blackberry Browser	>=8
Android Browser	>=4

## 2.5 Hidden Mode

Hidden Mode shows the consumer the payment page programmed by the merchant and skips the Payment Method Selection Page from Datatrans. There are some additional parameters which have to be used in the Hidden Mode. It is necessary to have a valid SSL certificate if you use the Hidden Mode. But we highly recommend using an SSL certificate for Standard Mode, too.

## 2.6 Mandatory parameters to be submitted with each transaction

\* All parameters are case specific

<b>merchantId</b>	N10	Unique Merchant Identifier (assigned by Datatrans)
<b>amount</b>		Transaction amount in <b>cents or smallest available unit of the currency</b>
<b>currency</b>	A3	Transaction currency – ISO Character Code (CHF, USD, EUR etc.)
<b>refno</b>	AN18	Merchant reference number; note: unique value for PayPal; can be defined as unique value for all other payment methods, too. Please refer to support@datatrans.ch for details.
<b>sign</b>		This parameter may be used according to the merchant's security level settings. For details please refer to the chapter " <a href="#">Security Option</a> ".

### 2.6.1 Other mandatory parameters

The following parameters either have to be submitted with each transaction or configured / pre-set in the merchant administration tool <https://payment.datatrans.biz>

<b>successUrl</b>		This parameter represents the URL of the merchant's shop application, where the consumer should be redirected to after a successful transaction
<b>errorUrl</b>		This parameter represents the URL of the merchant's shop application, where the consumer should be redirected to after a failed transaction
<b>cancelUrl</b>		This parameter represents the URL of the merchant's shop application, where the consumer should be redirected to after cancelling the payment dialog

### 2.6.2 Mandatory parameters for HiddenMode

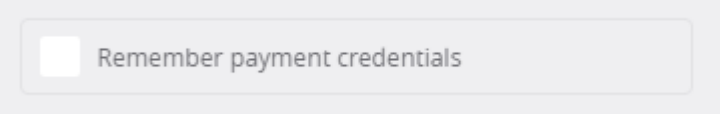
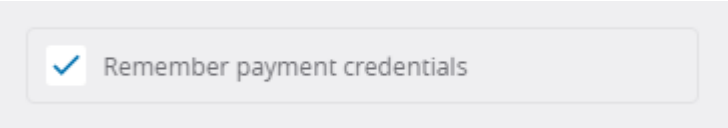
<b>paymentmethod</b>	A3	Payment method code; please refer to chapter 2.7.2 for detailed listing; this parameter is optional for Standard Mode
<b>cardno</b> or <b>aliasCC</b>	AN20	Credit card number or alias for credit card number. Optionally used for PostFinance Alias or for PayPal Reference Transactions
<b>expm</b>	MM	Expiry month of the card
<b>expy</b>	YY	Expiry year of the card
<b>hiddenMode</b>		Validates required parameters for hidden mode; sends process to error page if validation fails; value: "yes"
<b>cvv</b>	N4	CVV code (mandatory for initial transactions)

We highly recommend validating, if the fields are filled out and if they are correct.  
(Numeric fields only contain number, alphabetical field only contain letters etc.)



## 2.7 Optional parameters

<b>useAlias</b>		Requests the CC alias, this option needs to be activated by Datatrans; value: "yes"
<b>language</b>	A2	This parameter specifies the language (language code) in which the payment page should be presented to the cardholder. The following ISO-639 2 character language codes are supported: - de (German) - en (English) - fr (French) - it (Italian) - es (Spanish) - el (Greek) - no (Norwegian) - da (Danish) - pl (Polish) - pt (Portuguese)
<b>Post URL</b>		This parameter can't be passed with the HTTPS Post message; it has to be configured in <a href="https://payment.datatrans.biz">https://payment.datatrans.biz</a> . For further details please refer to chapter " <a href="#">Post URL Feedback</a> ".
<b>reqtype</b>		The request type specifies whether the transaction has to be immediately <b>settled or authorized</b> only. There are two request types available: "NOA" authorization only "CAA" authorization with immediate settlement in case of successful authorization; if "reqtype" is not submitted the transaction is processed according to the setting in the Web Admin Tool (section "UPP Administration").
<b>uppWebResponseMethod</b>		"GET" if the response is wished to be received as a GET. "POST" if the response is wished to be received as a POST. Default for ".htm" URLs is "GET", for all other endings "POST".
<b>Merchant Specific Parameters</b>		The merchant can invent and submit any number of own parameters. These parameters are returned to the Success-, Error- and Post URL. Restrictions: - The maximum length is limited to 300 characters - Line brakes are not allowed
<b>useTouchUI</b>		"yes" enforces touch mode "auto" enables touch mode when touch device detected, "no" disables touch mode
<b>customTheme</b>	AN50	Style Sheet used for TouchUI, please contact Datatrans for further information.
<b>mfaReference</b>	N10	For payment method "MFA" only (see also chapter 4.5)
<b>uppReturnMaskedCC</b>		"yes" – requests the return of the masked credit card number to the merchant in field "maskedCC". See chapter 2.9.1.
<b>refno2</b>	AN27	For ELV; lines 3 to 4 on the customer invoice For sofortüberweisung; will be forwarded to reason_2 (visible on customer invoice), if this value is empty, we will forward the

		<p>"refno" and use "Shop reference" as reason_1 For Visa/MasterCard (Soft Descriptor); depending on the acquirer use these restrictions: Chase Paymentech AN22 ConCardis AN17 SIX Payment Service AN21 * Please refer to Datatrans before implementing the Soft Descriptor.</p>
<b>refno3</b>	AN27	For ELV only; lines 3 to 4 on the customer invoice
<b>virtualCardno</b>	N19	For MFG only, refer to <a href="#">chapter MFGGroup</a>
<b>uppReturnTarget</b>		"_top" if return URL should be opened full screen when payment starts in an iFrame.
<b>uppTermsLink</b>		An external link to the merchant's terms and conditions. Will be displayed above the payment button with the text: "With your payment you accept our terms and conditions."
<b>uppRememberMe</b>		<p>Whether to show a "Remember payment credentials" checkbox on the payment page or not. "yes" – Same behaviour as "useAlias"</p>  <p>"checked" – Same behaviour as "useAlias" but checkbox is pre-checked</p> 
<b>uppDiscountAmount</b>	N	Discount amount in <b>cents or smallest available unit of the currency</b> , use positive value
<b>mode</b>		"forceRedirect" – This parameter is needed when displaying the redirect mode inside an iframe. It makes sure that no (X) button on the top right of the payment page is getting displayed. Additionally a click on the back button will redirect to the merchants cancel url.

### 2.7.1 Customer address details

It is now possible to submit customer address details to the Datatrans payment application. These details are stored in the Web Admin Tool, and they can be searched and viewed under <https://payment.datatrans.biz>. All address parameters are optional.

uppCustomerDetails		<p>* Pilot parameter, to be submitted with value: "yes" - if address details are submitted and if the data should be stored in the Web Admin Tool, or "return" (only available for PayPal Express Checkout) – if address details should be returned from PayPal to the merchant.</p>
--------------------	--	--

uppCustomerTitle	AN30	Title of customer
uppCustomerName	AN100	Name of customer
uppCustomerFirstName	AN100	* First name of customer
uppCustomerLastName	AN100	* Last name of customer
uppCustomerStreet	AN100	* Street address
uppCustomerStreet2	AN100	Second street address
uppCustomerCity	AN100	* City
uppCustomerCountry	A3	* ISO country code (alpha)
uppCustomerZipCode	AN10	* Postal code
uppCustomerState	AN100	* State
uppCustomerPhone	AN40	Phone number
uppCustomerFax	AN40	Fax number
uppCustomerEmail	AN100	E-mail address
uppCustomerGender	A6	Gender of customer; values: "male" / "female"
uppCustomerBirthDate	Date	Customer date of birth; format: "dd.mm.yyyy" or "yyyy-mm-dd"
uppCustomerLanguage	A2	Language of customer; values: en, de, fr, it

\* With PayPal (Express Checkout) you have the possibility to check if the address that was entered by the customer matches with the address he has registered at PayPal. Use therefore the uppCustomerDetails parameters with value "return".

## 2.7.2 Available Payment Methods

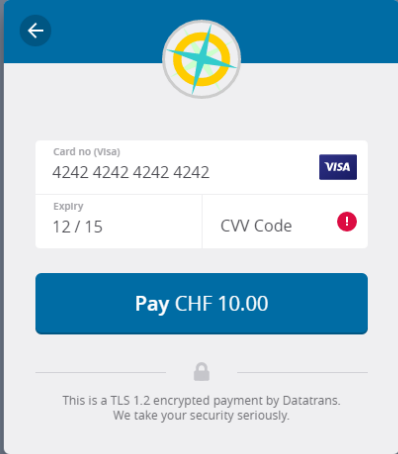
Parameter values for “paymentmethod”:

VIS	VISA	
ECA	MasterCard	
AMX	American Express	
BPY	Billpay	Specification to be found here: <a href="http://pilot.datatrans.biz/showcase/doc/Billpay.zip">http://pilot.datatrans.biz/showcase/doc/Billpay.zip</a>
DIN	Diners Club	
DIS	Discover	
DEA	*iDeal	No special characters are allowed in the refno
DIB	SOFORT Überweisung	credits are not possible, unless you have a bank account at sofortbank
DII	iDEAL via SOFORT Überweisung	only in Standard Mode available
DNK	Dankort	
DVI	Deltavista	Refer to chapter 4.4
ELV	SEPA Direct Debit / ELV Lastschrift	
ESY	* Swisscom Easypay	Refer to chapter 4.12
JCB	JCB	
JEL	Jelmoli Bonus Card	
MAU	Maestro	
MDP	Migros Bank Payment	Refer to chapter 4.11
MFA	MFGGroup Check Out (Credit Check)	Refer to chapter 4.6
MFG	MFGGroup Financial Request (authorization)	Refer to chapter 4.6
MTX	MFGGroup Easy integration	Refer to chapter 4.6
MMS	Mediamarkt Shopping Card	
MNB	* Moneybookers only with reqtype CAA	
MYO	Manor MyOne Card	
PAP	* PayPal	Refer to chapter 4.6
PEF	* Swiss PostFinance – PostFinance E-Finance	
PFC	* Swiss PostFinance – PostFinance Card	
PSC	* Paysafecard	
PYL	Payolution Installments	Refer to chapter 4.9
PYO	Payolution Invoice	Refer to chapter 4.9
REK	Reka Card	
SWB	SwissBilling	Refer to chapter 4.13
TWI	* TWINT Wallet	Refer to chapter 4.14
MPW	* MasterPass Wallet	Refer to chapter 4.15
ACC	* Accarda Kauf-auf Rechnung	Refer to chapter 4.16
INT	* Byjuno	Refer to chapter 4.17

\* For all external payment methods only the parameter “paymentmethod” is required. card number, expiry date, and CVV are not supported. These unsupported fields can either be omitted or submitted without value.

## 2.8 Personalization of the payment page

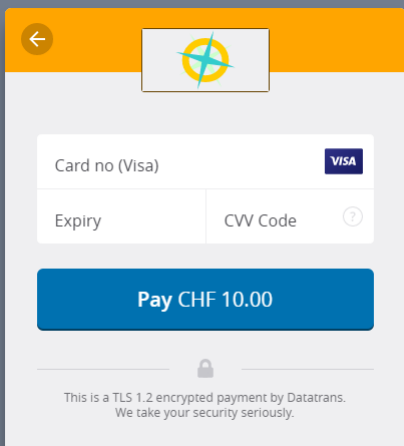
Individual theming is available by using the *themeConfiguration* parameter:



```

themeConfiguration = {
  "brandColor": "#006CA4",
  "textColor": "white",
  "logoSrc": "merchant-logo.svg"
  "logoType": "circle",
  "logoBorderColor": "#cccccc",
  "brandButton": true,
}

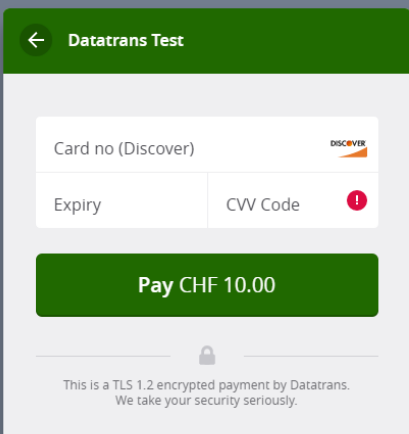
```



```

themeConfiguration = {
  "brandColor": "#FFA500",
  "textColor": "white",
  "logoSrc": "merchant-logo.svg"
  "logoType": "rectangle",
  "logoBorderColor": "#664200",
  "brandButton": false,
}

```



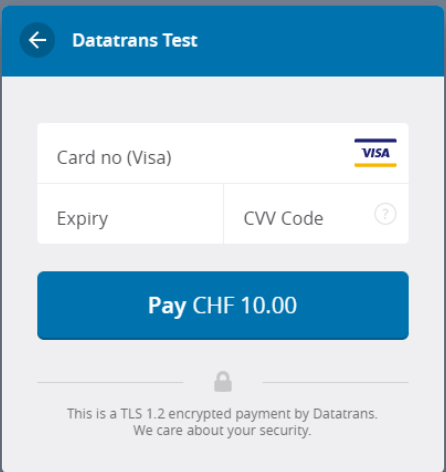
```

themeConfiguraton = {
  "brandColor": "#206900",
  "textColor": "white",
  "logoType": "none",
}

```

Parameter	Description
brandColor	The color of your brand. Values: <string (hex notation of a color)>   <null>
logotype	The header logo's display style. Values: 'circle'   'rectangle'   'none'
textColor	The color of the text in the header bar if no logo is given. Values: 'white'   'black'
logoBorderColor	Decides whether the logo shall be styled with a border around it, if the value is true the default background color is chosen, else the provided string is used as color value. Values: <boolean>   <string (hex notation of a color)>
logoSrc	An SVG image (scalability) provided by the merchant. The image needs to be uploaded by using the Datatrans Web Administration Tool.
brandButton	If true, the pay button will have the same color as specified for brandColor. Otherwise the provided string is used as a color value. Values: <boolean>   <string (hex notation of a color)> If set to false the hex color #01669F will be used as a default.
payButtonTextColor	The color of the pay button text. Values: 'white'   'black'
initialView	Whether the payment page shows the payment method selection as list (default) or as a grid. Values: 'list'   'grid'

If no *themeConfiguration* parameter is submitted the following default values will be used:



```

{
  "brandColor": "#0073AE",
  "textColor": "white",
  "logoType": "none",
  "logoBorderColor": "#E0E0E3",
  "brandButton": true,
  "payButtonTextColor": "white",
  "initialView": "grid"
}

```

## 2.9 Authorization Response

### 2.9.1 Successful Authorization

This response is sent concurrently to the successUrl and the post URL, which are provided by the merchant.

<b>uppTransactionId</b>	N18	Unique transaction identifier
<b>authorizationCode</b>	<del>N9</del>	<del>Internal transaction number</del> (deprecated, use acqAuthorizationCode)
<b>responseCode</b>	N4	Authorization response code 01 successful authorisation 02 successful authorisation without liability shift
<b>responseMessage</b>		Response message text (e.g. TRX AUTHORISED)
<b>refno</b>	AN18	Merchant order reference number
<b>amount</b>		Transaction amount in units/cents (the smallest unit of the currency) (e.g. 123.50 = 12350)
<b>currency</b>	A3	Transaction currency
<b>pmethod</b>	A3	The payment method by which the transaction has been made (e.g. VIS, ECA...)
<b>reqtype</b>	A3	NOA or CAA
<b>acqAuthorizationCode</b>	AN	Authorization code returned by credit card issuing bank (length depending on payment method)
<b>status</b>		Constant "success"
<b>uppMsgType</b>		Constant "web" for successUrl, "post" for postUrl
<b>aliasCC</b>	AN20	Alias for credit card number, for PostFinance or for PayPal Reference Transactions – optional
<b>maskedCC</b>		Masked credit card number – optional <b>(only returned with alias Request or when uppReturnMaskedCC="yes")</b>
<b>sign2</b>		<b>Returned only if "sign" has been submitted with authorization</b> (see chapter "Security Options")
<b>virtualCardno</b>	N19	Virtual card number for MFGroup Checkout – optional
<b>DccAmount</b>	N	DCC amount in home currency chosen by cardholder. In cents or smallest available unit of home currency
<b>DccCurrency</b>	A3	Cardholders home currency – ISO Character Code (USD, EUR etc.)
<b>DccRate</b>	N	Applied exchange rate of DCC provider (e.g. 0.855304)

\* DCC parameters returned only if DCC is activated and cardholder has chosen to pay in home currency. The service always returns all other merchant parameters sent along with the request.

\*\* Response code 02: You will receive a response code 02, if the issuer doesn't claim liability. In case of a charge back the merchants will have the liability.  
These transactions are declined on default. If you would like to accept transactions with a response code 02, please modify the configuration in the Web Admin Tool > UPP Administrator.

### 2.9.2 Failed / Unsuccessful Authorization

This response is sent to returnUrl and/or post URL provided by the merchant.

<b>uppTransactionId</b>	N18	Unique transaction identifier
<b>errorCode</b>	N7	Error code (please refer to <a href="#">chapter 8</a> )
<b>errorMessage</b>		Error response message text (example: INVALID VALUE)
<b>errorDetail</b>		Error detail text (example: CARD NUMBER NOT VALID)
<b>refno</b>	AN18	Merchant order reference number
<b>amount</b>		transaction amount in units/cents (the smallest unit of the currency) (e.g. 123.50 = 12350)
<b>currency</b>	A3	Transaction currency
<b>pmethod</b>	A3	The payment method by which the transaction has been made (VIS, ECA...)
<b>reqtype</b>	A3	NOA or CAA
<b>status</b>		Constant "error"
<b>uppMsgType</b>		Constant "web" for returnUrl, "post" for postUrl
<b>acqErrorCode</b>	N	Contains the error code sent by the acquirer

\* The service always returns all other merchant parameters sent along with the request.

### 2.9.3 Cancelled Payment Procedure

If the cardholder decides to cancel the payment process and to return to the shop without payment, the response is sent back to the cancelUrl.

<b>uppTransactionId</b>	N18	Unique transaction identifier
<b>refno</b>	AN18	Merchant order reference number
<b>amount</b>		Transaction amount in units/cents (the smallest unit of the currency) (e.g. 123.50 = 12350)
<b>currency</b>	A3	Transaction currency
<b>status</b>		Constant "cancel"
<b>uppMsgType</b>		Constant "web" for cancelUrl

\* The service always returns all other merchant parameters sent along with the request.



## 2.9.4 Post URL Feedback

A merchant can collect successful or failed transactions on data-oriented Post URL. This Post URL is used for face-less (**server to server**) data communication.

\* Note that for security reasons the Post URL cannot be submitted as a parameter. It has to be configured in the merchant's administration tool (<https://payment.datatrans.biz>).

The Merchant can choose one of the following options (according to the "Post data format" setting in Web Admin Tool)

- Get pure XML data
- Get posted HTML form with all necessary parameters posted into the request.

## 2.9.5 Payment page response codes

This is an extract from possible error codes. Note that this list is dynamic and not complete.

You find a detailed response message for every transaction in the Web Admin Tool.

Error detail		← Close
UPP internal error code	-42	
UPP error code	1404	
Error message	blocked	
Error description	Card blocked	

It's not recommended to show the exact error code to the consumer due to fraud risk.

## 3 XML Settlement and Status requests

### 3.1 XML Settlement request

The merchant application directly connects (server to server via standard socket) to the service URL, writes the XML document into this connection and reads the XML response documents from there.

**URL:** [https://payment.datatrans.biz/upp/jsp/XML\\_processor.jsp](https://payment.datatrans.biz/upp/jsp/XML_processor.jsp)

#### 3.1.1 Process overview

This interface can be used for the settlement of authorized transactions and for credit notes of settled debit transactions. Transactions due for settlement can be sent as a formatted XML message via an http request to the Datatrans payment application. After the validation of the XML message the merchant application receives back a status response. The settlement procedure is then performed by the payment application from Datatrans. The merchant's shop gets back an XML-formatted message containing all necessary data about the settled transactions.

#### 3.1.2 Mandatory parameters

<b>merchantId</b>		Unique Merchant Identifier (allocated by Datatrans at merchant registration process)
<b>amount</b>		Transaction amount in cents (the smallest unit of the currency) (e.g. 123.50 = 12350) <i>* Must not exceed the authorized amount!</i>
<b>currency</b>	AN3	Transaction currency - ISO character code (CHF)
<b>refno</b>	AN18	Merchant order reference number
<b>uppTransactionId</b>	N18	Original and unique transaction id. <i>* Is returned with the authorization request!</i>

#### 3.1.3 Optional Parameters

<b>reqtype</b>		<b>COA</b> – Settlement debit ( <b>transtype 05</b> required) <b>DEFAULT</b> <b>COA</b> – Settlement credit ( <b>transtype 06</b> required), only for settled transactions <b>REF</b> – Submission of <b>acqAuthorizationCode</b> after referral; requires <b>acqAuthorizationCode</b> ; changes status to <b>authorized</b> <b>REC</b> – Submission of <b>acqAuthorizationCode</b> after decline; requires <b>acqAuthorizationCode</b> ; changes status to <b>settled</b> <b>STA</b> – Transaction status request; see response codes below <b>DOA</b> – Transaction cancel request; used for authorization reversal <b>REA</b> – ** Re-authorization of old transaction
<b>transtype</b>		<b>05</b> – debit transaction <b>DEFAULT</b>

		<b>06</b> – credit transaction
<b>acqAuthorizationCode</b>		Required for reqtype <b>REF</b> and <b>REC</b>
<b>sign</b>		According to merchant's security level setting
<b>errorEmail</b>	AN50	E-Mail address, one e-mail address can be used The system sends an e-mail to this address in case of a failed settlement

\* Note that all parameters marked as **DEFAULT** are set with the corresponding default value if they are not present or no value is set.

\*\* reqtype **REA** has to be submitted with the **uppTransactionId** returned by the first authorization request; moreover, reqtype **REA** is only supported for credit card transactions with status "authorized".

### 3.1.4 XML Settlement response

The response XML document contains the same parameters as the request document.  
Additional parameters returned upon successful settlement are:

<b>responseCode</b>	N4	Settlement response code
<b>responseMessage</b>		Settlement response message text

Only returned in case of error:

<b>errorCode</b>	N7	Error code
<b>errorMessage</b>		Error response message text (example: INVALID VALUE)
<b>errorDetail</b>		Error detail text (example: CARD NUMBER NOT VALID)

Only returned in case of credit:

<b>uppTransactionId</b>	N18	Original TransactionId
<b>authorizationCode</b>	N9	Original authorization code
<b>acqAuthorizationCode</b>	AN7	Original acquirer's authorization code returned by acquirer

Complete list of XML Settlement response parameters can be found on Datatrans Showcase webpage:  
<http://www.datatrans.ch/Showcase/Settlement/XML-Settlement-request/Using-transaction-id/>

The meaning of error and response codes is represented in bellow in "Meaning of returned XML codes"

## 3.2 XML status request

The merchant application directly connects (server to server via standard socket) to the service URL, writes the XML document into this connection and reads the XML status response from there.

URL: [https://payment.datatrans.biz/upp/jsp/XML\\_status.jsp](https://payment.datatrans.biz/upp/jsp/XML_status.jsp)

### 3.2.1 Process overview

This interface can be used for requesting the status of transaction. After the validation of the XML message the merchant application receives back a status response. The merchant's shop gets back an XML-formatted message containing all necessary data about the status of transaction.

### 3.2.2 Mandatory parameters

<b>merchantId</b>		Unique Merchant Identifier (allocated by Datatrans at merchant registration process)
-------------------	--	--

At least one of following parameters must be submitted

<b>uppTransactionId</b> (preferred one)	N18	Original and unique transaction id. <i>* Is returned with the authorization request!</i>
<b>authorizationCode</b>	N9	Original authorization code
<b>refno</b>	AN18	Merchant order reference number

### 3.2.3 Optional Parameters

<b>reqtype</b>		<b>STA</b> – Standard (default) transaction status request; <b>STX</b> – extended transaction status request (see XML status response below)
----------------	--	---

### 3.2.4 XML Status response

The response XML document returned upon successful settlement contains:

<b>responseCode</b>	N4	Settlement response code
<b>responseMessage</b>		Settlement response message text

Only returned in case of error:

<b>errorCode</b>	N7	Error code
<b>errorMessage</b>		Error response message text (example: INVALID VALUE)
<b>errorDetail</b>		Error detail text (example: CARD NUMBER NOT VALID)

Only returned in case of extended status request (reqtype STX):

<b>uppTransactionId</b>	N18	Original TransactionId
<b>maskedCC</b>	AN12	Masked credit card number
<b>aliasCC</b>	AN20	Alias for credit card number, for PostFinance or for PayPal Reference Transactions
<b>expm</b>	MM	Expiry month of the card
<b>expy</b>	YY	Expiry year of the card

Complete list of XML Status response parameters can be found on Datatrans Showcase webpage:

<http://www.datatrans.ch/Showcase/Status/XML-Status-request/Using-transaction-id/>

The meaning of error and status codes is represented bellow in "Meaning of returned XML codes"

### 3.2.5 Meaning of error codes

These codes are returned in XML response if error happened in parameter called **errorCode**

Error Code	Code Message	In parameter Error Detail see for:
2000	Access denied by protocol control	
2001	Input document missing	Name of missing element
2002	Error building document	XML format error
2011	Root element invalid	Unexpected root element of XML document
2012	Body element missing	
2013	merchantId missing	Attribute 'merchantId' in body element missing
2014	Element missing	
2021	Missing value	Name of element, where value is missing
2022	Invalid value	Name of element that contains invalid value
2098	Database error	
2099	XML processing error	

### 3.2.6 Meaning of response (status) codes

These codes are returned in XML response in parameter called **responseCode**

Response Code	Description
0	Incomplete transaction
1	Transaction ready for settlement (trx authorized)
2	Transaction debit waiting for daily settlement process
3	Transaction credit waiting for daily settlement process
4	Transaction declined or other error
5	Transaction in referral status
6	cancelled by merchant after successful authorization
7	cancelled by merchant after successful authorization
8	cancelled by merchant after successful authorization
9	cancelled by user (before authorization process)
11	Authenticated (applies for split trx only)
12	Authenticated and authorized (applies for split trx only)
13	Pending transaction
14	Timeout
20	Record not found
21	Transaction already settled
30	Multiple one transaction found

## 4 Specialties about different payment methods

### 4.1 AVS - Address verification service

\* For AVS the merchant needs to have an US entity as well as contracts for VISA and MasterCard with either Worldpay or Chase Paymentech.

Verify the address of your customer with this service.

It can be used on the Web interface and also for an XML request.

#### 4.1.1 Mandatory parameters

<b>merchantId</b>		Unique Merchant Identifier (allocated by Datatrans at merchant registration process)
<b>amount</b>		
<b>currency</b>	AN3	Transaction currency - ISO 4217 character code (CHF)
<b>refno</b>	AN18	Merchants order reference number
<b>uppCustomerFirstName</b>	AN100	First name of customer
<b>uppCustomerLastName</b>	AN100	Last name of customer
<b>uppCustomerStreet</b>	AN100	Street address
<b>uppCustomerZipCode</b>	AN10	Postal code
<b>uppCustomerCity</b>	AN100	City

Datatrans has to activate the Fraud option, please contact us in advance.

You will receive some return codes which you can decline or accept individually. There options must be set in the Web Admin Tool.

### 4.2 CreditPass ELV (Elektronisches Lastschrift Verfahren) / SEPA Direct Debit

"Old" parameters for ELV:

<b>bankaccount</b>	N10	Bank account number
<b>bankrouting</b>	N8	Bank routing number ("Bankleitzahl")
<b>uppCustomerFirstName</b>	AN100	First name of customer
<b>uppCustomerLastName</b>	AN100	Last name of customer

New parameters for SEPA ELV:

<b>bankiban</b>	AN34	IBAN
<b>bankbic</b>	AN11	BIC (optional for Germany)
<b>elvMandateID</b>	AN35	ID of mandat (optional). If empty the content of refno will be used.
<b>uppCustomerFirstName</b>	AN100	First name of customer
<b>uppCustomerLastName</b>	AN100	Last name of customer

#### 4.2.1 Optional Parameters

<b>refno2</b>	AN27	line 3 on the customer invoice
<b>refno3</b>	AN27	line 4 on the customer invoice
<b>uppElvMandatText</b>		Default text can be overwritten. No HTML-tags are allowed except < >

German ELV transactions can be processed with an integrated credit and address check. The merchant has to agree with CreditPass test rules. Each test rule is referred to by a "Purchase Type".

The CreditPass credit check is based on the "uppCustomerDetails" (see chapter 2.4.1).

uppCustomerDetails		Pilot parameter, to be submitted with value "yes" if address details are submitted and if the data should be stored in the Web Admin Tool
PurchaseType	N1	Purchase Type according to agreement with CreditPass
uppCustomerFirstName	AN100	First name of customer
uppCustomerLastName	AN100	Last name of customer
uppCustomerStreet	AN100	Street address
uppCustomerCity	AN100	City
uppCustomerCountry	A3	ISO country code (alpha)
uppCustomerZipCode	AN10	Postal code

CreditPass transactions can be processed as https form post or as XML authorization requests. Please refer to the technical showcase page ([www.datatrans.ch/showcase](http://www.datatrans.ch/showcase)) for implementation examples.

### 4.3 Curabill

merchantId		Unique Merchant Identifier (allocated by Datatrans at merchant registration process)
amount		In the smallest available unit
currency	AN3	Transaction currency - ISO 4217 character code (CHF)
refno	AN18	Merchants order reference number
paymentmethod		CUR

Also, there is a Curabill-XML document to be submitted. The content of this document has to be verified with Curabill. Please contact your contact person at Curabill directly.

For a sample refer to <http://www.datatrans.ch/Showcase/Authorisation/Curabill/>

### 4.4 Deltavista

Deltavista is a European service for merchants who accept payments by invoice. This service allows checking the consumer's creditworthiness and address.

It requires the same parameters as described in the previous chapters but the parameter values are different.

#### 4.4.1 Mandatory parameters

merchantId		Unique Merchant Identifier (allocated by Datatrans at merchant registration
------------	--	---

		process)
amount		Can be 0
currency	AN3	Transaction currency - ISO 4217 character code (CHF)
refno	AN18	Merchants order reference number
paymentmethod		DVI
hiddenMode		yes
uppCustomerFirstName	AN100	First name of customer
uppCustomerLastName	AN100	Last name of customer
uppCustomerStreet	AN100	Street address
uppCustomerStreet2	AN100	House number
uppCustomerCity	AN100	City
uppCustomerCountry	A3	ISO 4217 country code (alpha)
uppCustomerState	AN100	State, e.g. California for USA
uppCustomerZipCode	AN10	Postal code
uppCustomerType	A1	"P" or "C" (individual person or company)
uppCustomerName	AN100	Name of company (for uppCustomerType "C")

All requests are visible in the Web Admin Tool.

## 4.5 Paysafecard

The settlement has to follow the authorization within one hour, except you have a different agreement with Paysafecard.

### 4.5.1 Mandatory parameters

paysafecardMerchantClientId		This parameter is identifying the customer, i.e. 2 transactions made from the same customer must have the same paysafecardMerchantClientId. You can use the unique ID of your customer as registered within your database, for example. If you are using the e-mail address or any other personal information, please encrypt it
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## 4.6 MFGroup Checkout

MFGroup Checkout is a Swiss service for credit check and monthly invoice.

Powerpay	MFA, MFG, MFX
Paycard (not yet released)	MPA, MPG, MPX

It requires the basic parameters according chapter 2. The recommended implementation is the following:

1. **Credit Check;** if successful a virtual card number is returned; payment method "MFA or MPA"
2. **Listing of available payment methods;** the merchant presents MFGroup Checkout as payment method only if a virtual card number has been returned by the credit check
3. **Authorization;** authorization process according to chapter 2; payment method "MFG or MPG"



Please note that credits for Powerpay/Paysafecard installements are not possible.

#### 4.6.1 Mandatory parameters for Credit Check (MFA, MFX, MPA, MPX)

merchantId		Unique Merchant Identifier (allocated by Datatrans at merchant registration process)
amount		Can be 0
currency	AN3	Transaction currency - ISO 4217 character code (CHF)
refno	AN18	Merchants order reference number
cardno	N50	Card number - Only for MPA/MPX
paymentmethod		MFA or MPA = credit check Only MFX or MPX = credit check and authorization at once
hiddenMode		Yes
uppCustomerFirstName	AN40	First name of customer
uppCustomerLastName	AN40	Last name of customer
uppCustomerStreet	AN40	Street address and house number
uppCustomerCity	AN40	City
uppCustomerCountry	A3	ISO 4217 country code (alpha)
uppCustomerZipCode	AN10	Postal code
uppCustomerGender	A6	Gender of customer; values: "male" / "female"
uppCustomerBirthDate	Date	Customer date of birth; format: "dd.mm.yyyy" or "yyyy-mm-dd"
uppCustomerLanguage	A2	Language of customer; values: en, de, fr, it

#### 4.6.2 Additional mandatory parameter for Authorization (MFG, MPG)

virtualCardno	N19	Virtual card number for MFGGroup Checkout
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#### 4.6.3 Optional parameters for Credit Check (MFA, MFX)

uppCustomerPhone	AN40	Phone number
uppCustomerEmail	AN40	E-mail address
mfaReference	N10	Customer reference in MFGGroup system; returned by the first MFA request of a customer; helps to identify the existing account and credit limit of the customer
shoppingCartType	AN30	Merchant can agree with Intrum Justitia to send them types of shopping carts, to prevent misuse of their online-shop. MFGGroup just forwards the values sent in this field to Intrum.
uppCustomerIpAddress	AN30	optional, customers IP-address
installmentType	AN30	The fields that are necessary to offer paying on installments to the customers are the following: <installmentNumber>, <installmentAmount>, <installmentFees>, <installmentInterests>. We will send those fields in the response if the field <installmentType> is i.e. " <b>4in12</b> ", which means 4 payments in 12 months. Merchant need special agreement for this option with MFGGroup. This parameter has to be sent for MFA and MFG.

#### 4.6.4 Optional parameters for Authorization (MFG, MPG)

installmentType	AN30	The fields that are necessary to offer paying on installments to the customers are the following: <installmentNumber>, <installmentAmount>, <installmentFees>, <installmentInterests>. We will send those fields in the response if the field <installmentType> is i.e. <b>"4in12"</b> , which means 4 payments in 12 months. Merchant need special agreement for this option with MFGGroup. This parameter has to be sent for MFA and MFG.
atOwnRisk	AN30	This field gives the merchant the possibility to take the risk for some transactions, especially when the <amount> is higher than the <mfaAvailableCredit> of the customer. Please consider, that the merchant has to be authorized by MFGGroup first, to do "atOwnRisk"-transactions.
refno2	AN27	Will be forwarded as parameter ExternalReference2 to MFGGroup
refno3	AN27	Will be forwarded as parameter ExternalReference3 to MFGGroup

The MFGGroup credit check can be submitted as XML authorization request or https Post redirect. Please refer to [support@datatrans.ch](mailto:support@datatrans.ch) to get more information about the XML process.

All requests are visible in the Web Admin Tool.

#### 4.6.5 MFGGroup specific response parameters (MFA, MPA)

mfaAvailableCredit	the credit of the customer currently available for purchases
mfaMaximalCredit	the maximum credit available for this customer
mfaReference	the customers reference in MFGGroup system which can be saved and used to retrieve the customer and his account for further purchases; to be submitted with all subsequent transactions of the same customer
mfaCreditRefusalReason	contains the result of the credit check, which is "null" in case of success
mfaResponseCode	response code from MFGGroup
errorDetail	is returned in error case, only; values: <ul style="list-style-type: none"> <li>- "unknown address": customer is unknown / was not found</li> <li>- "not matching address": If the cardnumber does not match – only MPA</li> <li>- "other": request was declined because of some not communicated reason and does therefore not receive credit</li> </ul>
installmentNumber	The number of installments the customer using the payment on installments has to pay
installmentAmount	The amount of each installment the customer has to pay (including installment fees and installment interest), amount in the smallest available unit
installmentFees	The amount of fees included in the installments, amount in the smallest available unit
installmentInterests	The amount of interests included in the installments, amount in the smallest available unit

#### 4.6.6 MFGGroup easy integration (MFX or MPX)

With the standard integration of the MFGGroup monthly invoice the credit check and the authorization request have be processed in two separate steps. However, it's also possible to process both steps in one single request.

The transaction has to be submitted either in hidden mode or standard mode. The only difference to MFA/MPA is that "paymentmethod" has to be submitted with value "MFX" or "MPX".

In this process, there is in most cases no need to get the MFGroup virtual card number. However, if the merchant needs it anyway, it can be obtained with the submission of the following parameter:

returnVirtualCardno	to be submitted with value "yes"; returns the MFGroup virtual cardnumber
virtualCardno	returned to success URL with virtual card number as value

## 4.7 PayPal

Please note the following restrictions:

- I- It's not possible to process PayPal transactions in an Iframe
- II- PayPal authorizations expire within 30 days; older transactions can't be recovered

### 4.7.1 Reference Transactions

This option allows to process recurring transactions as a back-end process without user authentication. It is therefore suitable for monthly subscription billing or mobile applications with one click check-out.

1. Authorization / Customer Registration  
Payment Page authorization request according to chapter 2 with additional parameter "useAlias"="yes"
2. Recurring Transactions via payment page (UPP)  
Payment page request in hidden mode according to chapter 2 with the additional parameter "aliasCC"; the value is the billing agreement ID returned by the customer registration process
3. Recurring Billing via XML authorization request  
XML request according to sample on <http://www.datatrans.ch/Showcase/Authorisation/XML-Authorisation/>

### 4.7.2 Line Items

With this feature the shopping cart items can be submitted to PayPal; they will then be displayed in the PayPal check-out page.

Parameters:

ITEMAMT	N	Header: total amount of all items (L_AMT0 * L_QTY0) + (L_AMT1 * L_QTY1) + ....)
TAXAMT	N	Header: total tax amount in cents (L_TAXAMT0 * L_QTY0) + (L_TAXAMT1 * L_QTY1) + ...
SHIPPINGAMT	N	Header: total shipping fees excluding tax
L_NAME <sub>n</sub>	AN20	Line item: name
L_AMT <sub>n</sub>	N	Line item: price per items in cents
L_Numbe <sub>n</sub>	N	Line item: article number
L_Desc <sub>n</sub>	AN20	Line item: description
L_QTY <sub>n</sub>	N	Line item: number of items
L_TAXAMT <sub>n</sub>	N	Line item: tax amount

The parameter "amount" is calculated from ITEMAMT + SHIPPINGAMT + TAXAMT  
n stands for the number of items, starting with 0. E.g. L\_NAME0=Wine, L\_NAME1=Whiskey, etc.

#### 4.7.3 PayPal Express Checkout

PayPal Express Checkout is a good way to make the check-out process more convenient for the shopper and to get PayPal advanced seller protection. Please refer to PayPal for more information about Express Check-Out.

For the technical implementation please refer to [this chapter](#) of this document.

#### 4.7.4 Additional PayPal specific parameters

imageURL	URL	URL for image to be displayed in the PayPal check-out page
cpp-cart-border-color	Hex Code	PayPal border color; to be submitted as hex color code
PayPalAllowNote	yes / no	Defines wether the text field for merchant notification should be visible for the shopper
uppForwardCustomerDetails	yes/no	Regulates wether the customer details are forwarded to PayPal or not
uppDisplayShippingDetails	yes/no	Regulates wether the shipping details are displayed or not (note uppForwardCustomerDetails and uppDisplayShippingDetails set "no" if the shipping details should not be shown on the PayPal page.
pendingPayPal	yes	This parameter will be <b>returned</b> , only if the PayPal transaction is in a pending status. Pending means that the transaction coundl't be confirmed by PayPal.
ppPayerID	AN13	PayPal customer account identifier. This parameter will be returned together with newly created PayPal alias ( billing agreement ID )

#### 4.7.5 Order-Authorize-Capture model

##### Step 1. Order

The merchant directs the customer to Datatrans' payment page as described above but presents an additional parameter "PayPalOrderId"="get" that will trigger the order-authorization-capture model. If the customer fulfils the payment, no authorization will take place, instead, a PayPal order will be created and the following parameters will be returned:

aliasCC	AN19	The PayPal orderId that will be used for authorizations on this order
uppTransactionId	N18	Datatrans' transaction id of this order

The following steps are done server-to-server using Datatrans' xml services for authorization, settlement and cancel.

##### Step 2. Authorization

Endpoint: [https://pilot.datatrans.biz/upp/jsp/XML\\_authorize.jsp](https://pilot.datatrans.biz/upp/jsp/XML_authorize.jsp)

Example:

```
<?xml version="1.0" encoding="UTF-8" ?>
<authorizationService version="3">
  <body merchantId="1000011011">
    <transaction refno="AUTH1-98569c20aaf1a78e">
      <request>
        <pmethod>PAP</pmethod>
        <aliasCC>0-79D20795N29654231</aliasCC>
        <amount>401</amount>
        <currency>EUR</currency>
        <sign>30916165706580013</sign>
      </request>
    </transaction>
  </body>
</authorizationService>
```

### Step 3. Capture

The capture is done with the XML settlement service (<https://www.datatrans.ch/showcase/settlement/xml-settlement-request>)

Endpoint: [https://pilot.datatrans.biz/upp/jsp/XML\\_processor.jsp](https://pilot.datatrans.biz/upp/jsp/XML_processor.jsp)

Request parameter "uppTransactionId" must hold the value returned by the the previous authorization request that is being captured.

Example:

```
<?xml version="1.0" encoding="UTF-8" ?>
<paymentService version="3">
  <body merchantId="1000011011">
    <transaction refno="AUTH1-98569c20aaf1a78e">
      <request>
        <amount>401</amount>
        <currency>EUR</currency>
        <uppTransactionId>150828145622944400</uppTransactionId>
      </request>
    </transaction>
  </body>
</paymentService>
```

Steps 2 and 3 can be repeated multiple times.

### Step 4. Cancelling the order

The cancel is done with the XML settlement service (<https://www.datatrans.ch/showcase/settlement/xml-cancel-request>)

Endpoint: [https://pilot.datatrans.biz/upp/jsp/XML\\_processor.jsp](https://pilot.datatrans.biz/upp/jsp/XML_processor.jsp)

The request value of uppTransactionId is the one received from Step 1.

This will void the PayPal order and no more authorization-captures will be permitted. This step is necessary in order to finalize the order.

Example:

```
<?xml version="1.0" encoding="UTF-8" ?>
<paymentService version="3">
  <body merchantId="1000011011">
    <transaction refno="98569c20aaf1a78e">
      <request>
        <amount>1000</amount>
        <currency>EUR</currency>
        <uppTransactionId>150828145432624385</uppTransactionId>
        <reqtype>DOA</reqtype>
      </request>
    </transaction>
  </body>
</paymentService>
```

## 4.8 PostFinance Alias

This option allows to process recurring transactions as a back-end process without user authentication. It is therefore suitable for monthly subscription billing or mobile applications.

### 4.8.1 Process steps:

1. Authorization / Customer Registration  
Payment Page authorization request according to chapter 2 with additional parameter "useAlias"="yes"
2. Recurring Transactions via payment page (UPP)  
Payment page request in hidden mode according to chapter 2 with the additional parameter "aliasCC"; the value is the alias ("aliasCC") returned by the customer registration process
3. Recurring Billing via XML authorization request  
XML request according to sample on <http://www.datatrans.ch/Showcase/Authorisation/XML-Authorisation/> with <aliasCC>

## 4.9 Payolution

Mandatory parameters for Payolution invoice (paymentmethod PYO) and Payolution installments (paymentmethod PYL)

merchantId	N10	Unique Merchant Identifier (allocated by Datatrans at merchant registration process)
amount		Transaction amount in <b>cents or smallest available unit of the currency</b>
currency	AN3	Transaction currency - ISO 4217 character code (CHF)
refno	AN18	Merchants order reference number
paymentmethod		PYO / PYL
uppCustomerFirstName	AN100	First name of customer
uppCustomerLastName	AN100	Last name of customer
uppCustomerStreet	AN100	Street address
uppCustomerStreet2	AN100	house number
uppCustomerCity	AN100	City
uppCustomerCountry	A3	ISO 4217 country code (alpha)
uppCustomerZipCode	AN10	Postal code
uppCustomerEmail	AN100	E-mail address
reqtype		"NOA" authorization only "CAA" authorization with immediate settlement in case of successful authorization
uppCustomerDetails		yes (if the customer data should be stored in the Web Admin Tool) / no
uppCustomerType	A1	P (Person) or C (Company)

Optional parameters for Payolution invoice (paymentmethod PYO) and Payolution installments (paymentmethod PYL)

uppCustomerBirthDate	Date	Customer date of birth; format: "dd.mm.yyyy" or "yyyy-mm-dd". Mandatory for B2C transactions only.
uppCustomerName	AN100	Name of company (for uppCustomerType "C")
uppCustomerAirlineDeparture	AN40	2012-12-30 17:00
uppCustomerAirlineRoute	AN40	VIE,MUC,LHR
uppCustomerAirlineFlightNumber	AN40	OS1234,LH1234
uppCustomerAirlineBookingCode	AN40	
uppCustomerAirlineFrequentFlyer	AN40	
hiddenMode		yes

## 4.10 Aduno surprise

Aduno surprise is a loyalty system from Aduno Gruppe.

### 4.10.1 Aduno surprise specific response parameters

adunoAmtAuthOriginal	N	Original transaction amount in <b>cents or smallest available unit of the currency</b>
amount	N	New transaction amount in <b>cents or smallest available unit of the currency</b>

adunoTotalDiscountAmount	N	Sum of all discounts
adunoLoyDiscMsg	AN1024	Used for disclaimer texts for sales slips.
adunoCampaignText	AN1024	Campaign text (either confirmation or the decline message)
adunoCampaignSummaryText	AN1024	Campaign summary text that can be used on the POS receipt (validity)
adunoLoyRefNum	AN16	Unique reference number provided by the Loyalty system. Used as reference and matching criteria for Loyalty transactions.
adunoLoyResltMsg	AN1024	Contains the explanation text to the adunoLoyReslt
adunoLoyReslt	N5	Loyalty result code, which indicates the result of a loyalty request.
adunoPtAvail	N9	Used to show to the cardholder the remaining points.
adunoPtEarn	N9	Used to show to the cardholder the points earned in a transaction.
adunoPtPrev	N9	Used to show to the cardholder his point balance before the current loyalty transaction.
adunoPtRedeem	N9	Used to show to the cardholder the points redeemed in a transaction.

## 4.11 Migros Bank Payment

Migros Bank Payment is a cardless payment method from Migros Bank with direct debit during payment process and payment authorization by smartphone.

### 4.11.1 Mandatory request parameters

merchantId		Unique Merchant Identifier (allocated by Datatrans at merchant registration process)
amount		In the smallest available unit
currency	AN3	Transaction currency - ISO 4217 character code (CHF)
refno	AN18	Merchants order reference number

### 4.11.2 Optional request parameters

paymentmethod	A3	"MDP"
mdpUserId	A18	Username of registered MDP customer.
useAlias	A3	"yes" (if an alias should be requested)
mdpAlias	A18	needed if a payment shall be processed as an alias payment

### 4.11.3 Return parameters

mdpAlias	A18	Alias (if requested by merchant and confirmed by the customer)
txnMbRefNo	A18	Migros Banks unique transaction reference number



## 4.12 Swisscom Easypay

Easypay is a carrier billing service from Swisscom. The amount of the purchase will be charged to the consumer's monthly invoice from Swisscom or in case consumer has a mobile prepaid the amount will be debited on the pre-paid credit balance.

Consumer will be redirected to an external webpage from Swisscom to confirm the payment. Easypay can be used with practically all mobile end devices: mobile phones and smartphones. All consumers with a Swisscom SIM card (subscription or prepaid) can use Easypay without any registration.

### 4.12.1 Optional request parameters

easyPaymentInfo	AN50	This value is displayed on the external Swisscom webpage, in the notification SMS, in the Swisscom customer center and on the consumer's bill.  If parameter is not submitted, the value from parameter refno will be taken. If parameter is submitted without value, an error will occur on Swisscom webpage. (A-Za-z0-9_-)
easyTitle	AN25	Title of the content/product. Will be displayed on external webpage from Swisscom. (A-Za-z0-9_-)
easyDescription	AN100	Description of the content/product. Will be displayed on external webpage from Swisscom. (Any character except: '<', '>', '&')

### 4.12.2 Settlement

Deferred Settlement is technically possible. We recommend to authorize with immediate settlement (reqtype = "CAA") or with a separate settlement request immediately after successful authorization. An authorization can not be settled after 00:59 of the next day. To settle a smaller amount as initially authorized is not possible.

### 4.12.3 Credit

A previously authorized and settled transaction can be refunded. Refunding a transaction with multiple credits (i.e. 1 x settled transaction of CHF 100 / 2 x credit of CHF 50) is not supported for Easypay. However, it's possible to refund a partial amount (i.e. CHF 50).

## 4.13 SwissBilling

SwissBilling is an external provider who handles invoicing to consumers and their payments.

### 4.13.1 Additional mandatory request parameters

uppCustomerFirstName	AN100	First name of consumer
uppCustomerLastName	AN100	Last name of consumer
uppCustomerStreet	AN100	Street address
uppCustomerCity	AN100	City

uppCustomerCountry	A3	ISO country code (alpha)
uppCustomerZipCode	AN10	Postal code
uppCustomerPhone	AN40	Phone number
uppCustomerEmail	AN100	E-mail address
uppCustomerBirthDate	Date	Consumers date of birth; format: "dd.mm.yyyy" or "yyyy-mm-dd"

#### 4.13.2 Additional mandatory request parameters for B2B only

uppCustomerFirstName	AN100	First name of consumer
uppCustomerLastName	AN100	Last name of consumer
uppCustomerName	AN100	Name of company
uppCustomerType	A1	Either P (=person) or C (=company)

#### 4.13.3 Optional request parameters

taxAmount	N	Total VAT amount for this purchase
uppDiscountAmount	N	Total discount amount, use positive value
uppShippingPriceGross	N	Total shipping price amount
uppCustomerId	AN	Identifiert for a consumer
uppCustomerLanguage	A2	Language of consumer; values: de, fr, it If parameter is not submitted, de is default.
uppCustomerStreet2	AN100	Street address
uppShippingDetails	yes/no	If "yes" all shipping parameters are mandatory except uppShippingStreet2 remains optional.
uppShippingFirstName	AN40	First name of recipient
uppShippingLastName	AN40	Last name of recipient
uppShippingStreet	AN40	Street address of recipient
uppShippingStreet2	AN40	Street address of recipient
uppShippingZipCode	AN10	Postal code of recipient
uppShippingCity	AN40	City of recipient
uppShippingCountry	A3	ISO country code (alpha) of recipient
uppArticle_1_Id	AN	Identifier for the product
uppArticle_1_Name	AN	Name of the product
uppArticle_1_Description	AN	Other information related to the product
uppArticle_1_PriceGross	N	Product unit price including VAT
uppArticle_1_Quantity	N	Quantity of product
uppArticle_1_Tax	N / DN	VAT rate for this product
uppArticle_1_TaxAmount	N	VAT amount for this product
uppArticle_1_Type	AN	Value "goods" specifies that products shall be shipped.

Information for multiple products can be submitted by adding additional parameters for article. The names of the additional parameters for articles are defined as: uppArticle\_2\_Id, uppArticle\_2\_Name, etc.

Datatrans provides also a technical interface to check ("pre-screening") if SwillBilling is eligible for a consumer. Please refer to Datatrans Support ([support@datatrans.ch](mailto:support@datatrans.ch)) for XML-examples.

## 4.14 TWINT Wallet

TWINT is a new service based on a smart phone application. The connection between the customer and merchant is established using a numeric token or a QR code displayed in a corresponding TWINT page. The TWINT app runs on the customer's device and is needed to confirm the payment or offer additional functionality. An internet connection is required on customer's device for the app to contact the TWINT server.

TWINT transfers the credit balance to the merchant once a day to the specified PostFinance or bank account, with the next day as the value date.

#### 4.14.1 Authorization

In addition to specifying the amount and currency, the merchant can provide its own reference number, which is also used in the rest of the process. The reference number is a unique key for the merchant. If a payment is canceled, a new transaction can be started with the same number. Starting further transactions with the same reference number is not permitted once a transaction was successful.

Direct debit (reqtype = "CAA") - The amount is charged to the customer and credited to the merchant. The customer, with no delay, credits it upon approval.

Authorization + Settlement (reqtype = "NOA") - The amount is charged directly to the customer or reserved. It is only credited to the merchant after the merchant confirmation.

#### 4.14.2 Settlement

Settlement can be immediate when we use Direct debit or deferred when the merchant choose to send it later with xml or manually in web-admin. It's possible to settle a smaller amount as initially authorized.

#### 4.14.3 Credit

A previously authorized and settled transaction can be refunded. The amount is charged to the merchant without delay and credited to the customer. Depending on the contract, fees may be charged for this transaction type or the transaction costs can be reimbursed. If the amount does not match the original transaction, a partial credit is recorded. Refunding a transaction with multiple credits (i.e. 1 x settled transaction of CHF 100 / 2 x credit of CHF 50) is not supported for TWINT Wallet.

## 4.15 MasterPass Wallet

MasterPass is a service that enables consumers to checkout on your site or app using any MasterPass-connected wallet.

### 4.15.1 Mandatory request parameters

merchantId	N10	Unique Merchant Identifier (assigned by Datatrans)
amount		Transaction amount in cents or smallest available unit of the currency
currency	A3	Transaction currency – ISO Character Code (CHF, USD, EUR etc.)
refno	AN18	Merchant reference number

### 4.15.2 Optional request parameters

uppArticle_1_Description	AN100	Describes a single shopping cart item.
uppArticle_1_Quantity	N12	Number of a single shopping cart item.
uppArticle_1_Value	N12	Price or monetary value of a single shopping cart item. Cost * Quantity. Integer without decimal e.g., \$100.00 is 10000.
uppArticle_1_ImageURL	AN2000	Link to shopping cart item image. URLs must be HTTPS, and not HTTP.
uppDisplayShippingDetails	yes/no	Flag to suppress the shipping options presented to the user. This parameter is optional and will default to no. Should be yes or no.
confirmationUrl		This parameter represents the URL of the merchant's shop application, where the consumer should be redirected to after card/shipping address selection before final authorization. The consumer will confirm the purchase on this page.

Information for multiple products can be submitted by adding additional parameters for article. The names of the additional parameters for articles are defined as: uppArticle\_2\_Description, uppArticle\_2\_Quantity, etc. Sum of all uppArticle\_X\_Value request parameters must be equal to the amount request parameters.

#### 4.15.3 Additional return parameters

sourcepmethod	A3	MPW
uppTransactionId	N18	Unique transaction identifier
uppShippingFirstName	AN100	First name of recipient
uppShippingLastName	AN100	Last name of recipient
uppShippingCity	AN25	Cardholder's city
uppShippingCountry	AN2	Cardholder's country. Defined by ISO 3166-1 alpha-2 digit country codes e.g. US is United States, AU is Australia, CA is Canada, GB is United Kingdom, etc.
uppShippingCountrySubdivision	AN5	Cardholder's country subdivision. Defined by ISO 3166-1 alpha-2 digit code e.g. US-VA is Virginia, US-OH is Ohio
uppShippingStreet	AN40	Address line 1 used for Street number and Street Name.
uppShippingStreet2	AN40	Address line 2 used for Apt Number, Suite Number ,etc.
uppShippingStreet3	AN255	Address line 3 used to enter remaining address information if it does not fit in Line 1 and Line 2
uppShippingZipCode	AN20	Postal Code or Zip Code appended to mailing address for the purpose of sorting mail.
uppBillingCity	AN25	Cardholder's city
uppBillingCountry	AN2	Cardholder's country. Defined by ISO 3166-1 alpha-2 digit country codes e.g. US is United States, AU is Australia, CA is Canada, GB is United Kingdom, etc.
uppBillingCountrySubdivision	AN5	Cardholder's country subdivision. Defined by ISO 3166-1 alpha-2 digit code e.g. US-VA is Virginia, US-OH is Ohio
uppBillingStreet	AN40	Address line 1 used for Street number and Street Name.
uppBillingStreet2	AN40	Address line 2 used for Apt Number, Suite Number ,etc.
uppBillingStreet3	AN255	Address line 3 used to enter remaining address information if it does not fit in Line 1 and Line 2
uppBillingZipCode	AN20	Postal Code or Zip Code appended to mailing address for the purpose of sorting mail.
uppCustomerFirstName	AN150	First name
uppCustomerMiddleName	AN150	Middle name
uppCustomerLastName	AN150	Last name
uppCustomerGender	male/female	Gender (male/female) NOTE: This field may only be requested from a MasterPass wallet if it is required by law in a region. Merchants and service providers seeking to use this field must work with the local MasterPass representative to get the necessary

		clearances before requesting these data elements.
uppCustomerBirthDate		Date of birth (yyyy-mm-dd) NOTE: This field may only be requested from a MasterPass wallet if it is required by law in a region. Merchants and service providers seeking to use this field must work with the local MasterPass representative to get the necessary clearances before requesting these data elements.
uppCustomerNationalID	AN150	National ID NOTE: This field may only be requested from a MasterPass wallet if it is required by law in a region. Merchants and service providers seeking to use this field must work with the local MasterPass representative to get the necessary clearances before requesting these data elements.
uppCustomerCountry	AN2	Country code
uppCustomerEmail	AN512	Email address
uppCustomerPhone	AN20	Phone number

#### 4.15.4 Full checkout mode (with purchase confirmation on merchant's page)

If the merchant uses the `confirmationUrl` request parameter, the cardholder is redirected to merchant's confirmation page (`confirmationUrl`) before final purchase processing. Parameters described in 4.15.4.1 and 4.15.4.2 are submitted to merchant's confirmation page using POST or GET method in the UTF-8 encoding. The method depends on the request parameter `uppWebResponseMethod`. Default is POST.

##### 4.15.4.1 Mandatory parameters submitted to merchants confirmation page

uppTransactionId	N18	Unique transaction identifier
amount		Transaction amount in cents or smallest available unit of the currency
currency	A3	Transaction currency – ISO Character Code (CHF, USD, EUR etc.)
refno	AN18	Merchant reference number

##### 4.15.4.2 Optional parameters submitted to merchants confirmation page

maskedCC		Masked credit card number (only returned when <code>uppReturnMaskedCC="yes"</code> )
uppShippingFirstName	AN100	First name of recipient
uppShippingLastName	AN100	Last name of recipient
uppShippingCity	AN25	Cardholder's city
uppShippingCountry	AN2	Cardholder's country. Defined by ISO 3166-1 alpha-2 digit country codes e.g. US is United States, AU is Australia, CA is

		Canada, GB is United Kingdom, etc.
uppShippingCountrySubdivision	AN5	Cardholder's country subdivision. Defined by ISO 3166-1 alpha-2 digit code e.g. US-VA is Virginia, US-OH is Ohio
uppShippingStreet	AN40	Address line 1 used for Street number and Street Name.
uppShippingStreet2	AN40	Address line 2 used for Apt Number, Suite Number ,etc.
uppShippingStreet3	AN255	Address line 3 used to enter remaining address information if it does not fit in Line 1 and Line 2
uppShippingZipCode	AN20	Postal Code or Zip Code appended to mailing.
uppBillingCity	AN25	Cardholder's city
uppBillingCountry	AN2	Cardholder's country. Defined by ISO 3166-1 alpha-2 digit country codes e.g. US is United States, AU is Australia, CA is Canada, GB is United Kingdom, etc.
uppBillingCountrySubdivision	AN5	Cardholder's country subdivision. Defined by ISO 3166-1 alpha-2 digit code e.g. US-VA is Virginia, US-OH is Ohio
uppBillingStreet	AN40	Address line 1 used for Street number and Street Name.
uppBillingStreet2	AN40	Address line 2 used for Apt Number, Suite Number ,etc.
uppBillingStreet3	AN255	Address line 3 used to enter remaining address information if it does not fit in Line 1 and Line 2
uppBillingZipCode	AN20	Postal Code or Zip Code appended to mailing address for the purpose of sorting mail.
uppCustomerFirstName	AN150	First name
uppCustomerMiddleName	AN150	Middle name
uppCustomerLastName	AN150	Last name
uppCustomerGender	male/female	Gender (male/female) NOTE: This field may only be requested from a MasterPass wallet if it is required by law in a region. Merchants and service providers seeking to use this field must work with the local MasterPass representative to get the necessary clearances before requesting these data elements.
uppCustomerBirthDate		Date of birth (yyyy-mm-dd) NOTE: This field may only be requested from a MasterPass wallet if it is required by law in a region. Merchants and service providers seeking to use this field must work with the local MasterPass representative to get the necessary clearances before requesting these data elements.
uppCustomerNationalID	AN150	National ID NOTE: This field may only be requested from a MasterPass wallet if it is required by law in a region. Merchants and service providers seeking to use this field must work with the local MasterPass representative to get the



		necessary clearances before requesting these data elements.
uppCustomerCountry	AN2	Country code
uppCustomerEmail	AN512	Email address
uppCustomerPhone	AN20	Phone number

Merchant should redirect the cardholder back to our Masterpass finish transaction URL and submit parameters described in 4.15.4.3 and 4.15.4.4. Without this redirection, the transaction will not be finished successfully.

Masterpass finish transaction URL: <https://SERVER-NAME/upp/mcwallet/FinishTransaction>  
eg. <https://payment.datatrans.biz/upp/mcwallet/FinishTransaction>

As a redirection method we accept POST and GET. Parameters should be encoded in UTF-8 encoding.

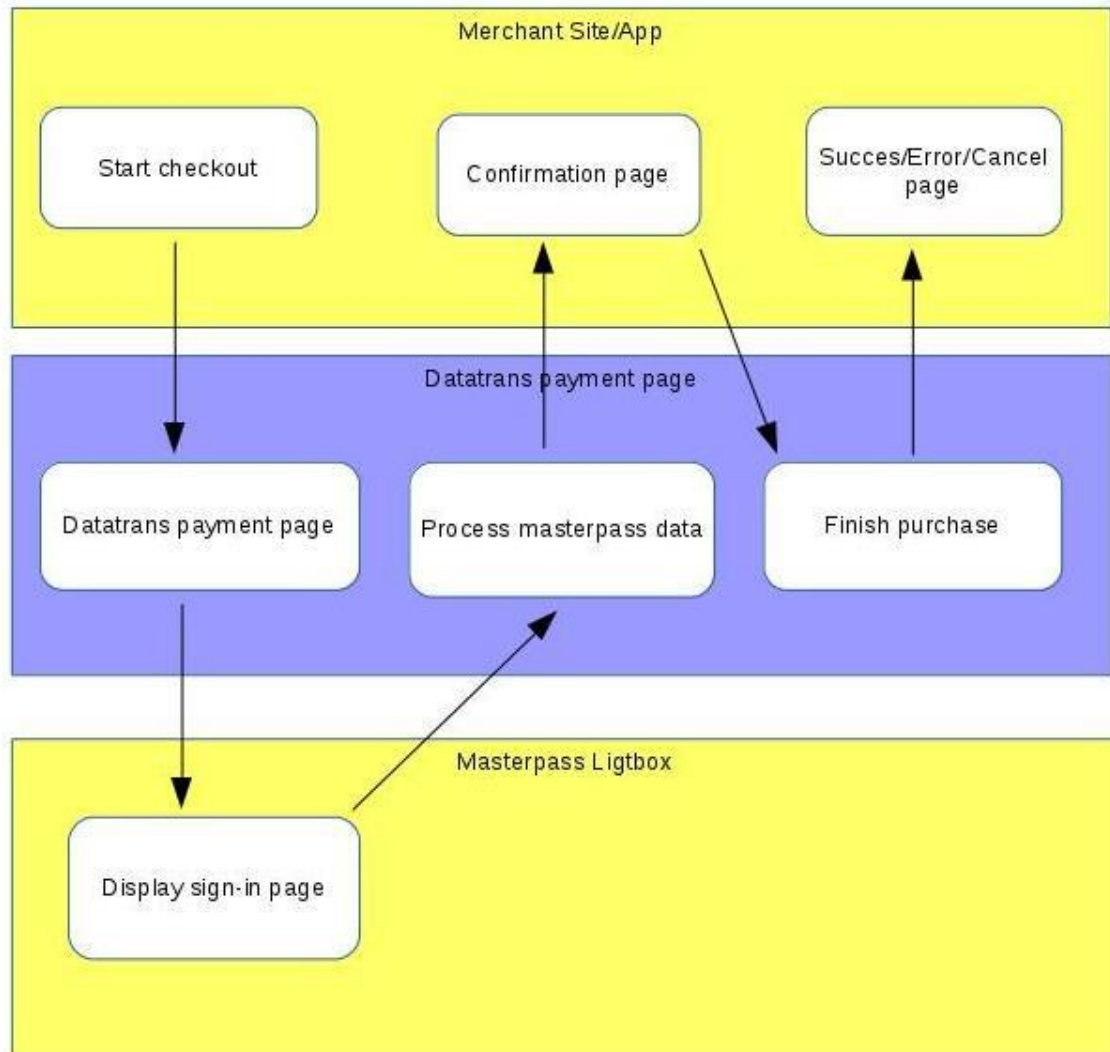
#### 4.15.4.3 Mandatory return parameters that must be sent to Masterpass finish transaction URL

uppTransactionId	N18	Unique transaction identifier
------------------	-----	-------------------------------

#### 4.15.4.4 Optional return parameters that could be sent to Masterpass finish transaction URL

amount		Transaction amount in cents or smallest available unit of the currency. Merchant can calculate final price based on shipping and taxes. Default is the original amount used to start the transaction.
status		"success", "cancel" or "error". Default is "success".

#### 4.15.4.5 Masterpass wallet full checkout flow



#### 4.15.5 Masterpass wallet connected checkout mode

Connected Checkout enables MasterPass merchants to provide a customized checkout experience to their consumers across all connected channels. In the connected checkout model, consumers who have paired their wallet with the merchant allow that merchant to retrieve the consumer's pre-checkout data (shipping and other wallet information) **without** the actual card number and without the consumer having to log in to their wallet. The actual card number will be provided to the merchant only after the consumer logs in to their wallet (by entering only their wallet password). Data shared in connection with the "Connected Checkout" (pre-checkout data) can only be used to implement checkout and **must be destroyed immediately following the check-out experience**. No data shared during the "Connected Checkout" experience may be retained after the checkout is completed.

#### 4.15.5.1 Pairing of wallet

The consumer consents to “pair” their wallet account with their merchant account by agreeing to Connected Checkout. Pairing can happen during Checkout/Purchase or outside of checkout/purchase on the merchant site/app. When the consumer pairs with the merchant, MasterPass sends an email to the consumer confirming the wallet pairing. Pairing enables the consumers’ MasterPass wallet data to be shared with the merchant during checkout transactions. This is accomplished by passing a **Long Access token** to the merchant. No cardholder data should be retained by the merchant or service provider in between checkouts.

**Note:** Long Access token is a **one-time** use token. Each time a call using Long Access Token is made, a new Long Access token will be passed back to the merchant. This new Long Access token will then need to be stored, to be used the next time.

#### 4.15.5.2 Pairing of wallet during checkout/purchase

In this experience, a consumer pairs their wallet with a merchant while performing checkout/purchase. The pairing process starts when a consumer clicks the Buy with MasterPass button on the merchant/PSP site. This begins a set of exchanges that will bring the consumer through MasterPass and back out to the merchant again. If the consumer agrees to pair their wallet with the merchant, the consumer’s pre-checkout data will be available to the merchant during subsequent checkouts without the consumer having to log in to their wallet. When checkout is completed, the consumer data (precheckout data) must be **immediately deleted**.

Additional mandatory request parameters

uppMpwRequestPairing	yes/no	Request pairing during checkout/purchase
----------------------	--------	--

Additional return parameters

uppMpwLongAccessToken	AN255	Long-access token required to retrieve precheckout data. Merchant should save this token. This parameter will be returned only when consumer agrees with pairing.
-----------------------	-------	---

#### 4.15.5.3 Pairing of wallet outside of a checkout/purchase

In this experience, a consumer pairs their wallet with a merchant while not performing checkout/purchase e.g. in the account management. The pairing process starts when a consumer clicks the ‘Connect with MasterPass’ button on the merchant site – e.g. in the consumer account management. This begins a set of exchanges that will bring the consumer through MasterPass and back out to the merchant again. If the consumer agrees to pair their wallet with the merchant, the consumer’s pre-checkout data will be available to the merchant during their subsequent checkouts without the consumer having to log in to their wallet. When checkout is completed, the consumer data must be **immediately deleted**.

To start the pairing process the merchant should redirect consumer to the Masterpass pairing page with mandatory parameters.

Masterpass pairing URL: <https://SERVER-NAME/upp/mcwallet/Pairing>  
eg. <https://payment.datatrans.biz/upp/mcwallet/Pairing>

As a redirection method we accept POST and GET. Parameters should be encoded in UTF-8 encoding.

#### Mandatory pairing request parameters

merchantId	N10	Unique Merchant Identifier (assigned by Datatrans)
uppMpwReturnUrl		This parameter represents the URL of the merchant's shop application, where the consumer will be redirected to after the successful pairing process.
refno	AN18	Merchant reference number (pairing identification)
timestamp	AN19	Current timestamp in the format yyyy-MM-dd hh:mm:ss
sign		Sign value computed from <i>merchantSalt+merchantId+uppMpwReturnUrl+refno+timestamp</i> parameter values. How to compute the sign value is described in the UPP administration Tool. (Webadmin → UPP Administration → Security → Security of other services).

#### Pairing return parameters (returned to uppMpwReturnUrl)

status	success/ error/ cancel	Pairing status
uppMpwLongAccessToken	AN255	Long-access token required to retrieve precheckout data. Merchant should save this token. This parameter will be returned only when consumer agrees with pairing.
refno	AN18	Merchant reference number (pairing identification)

#### 4.15.5.4 Requesting pre-checkout data with long-access token (uppMpwLongAccessToken)

Once the consumer (a) has paired their wallet account with merchant account and (b) logs into their merchant account—or has otherwise been recognized by the merchant—on the merchant site/app, the merchant will submit the token to MasterPass pre-checkout URL to retrieve the consumer's up-to-date wallet information (card details [including the last four digits of the card number], addresses, and so on) = pre-checkout data. The merchant can then present this information to the consumer as part of their own experience, with the ability to streamline/personalize the consumer's experience. Consumers can then checkout easily.

To receive the pre-checkout data the merchant should call the Masterpass pre-checkout URL with mandatory parameters.

Masterpass pre-checkout URL: <https://SERVER-NAME/upp/mcwallet/PreCheckout>  
eg. <https://payment.datatrans.biz/upp/mcwallet/PreCheckout>

As method we accept POST and GET. Parameters should be encoded in UTF-8 encoding.

#### Pre-checkout service mandatory request parameters

merchantId	N10	Unique Merchant Identifier (assigned by Datatrans)
uppMpwLongAccessToken	AN255	Long-access token required to retrieve precheckout data. Merchant should save this token. This parameter will be returned only when consumer agrees with pairing.
sign		Sign value computed from <i>merchantSalt+merchantId+uppMpwLongAccessToken</i> parameter values. How to compute the sign value is described in the UPP administration (Webadmin UPP Administration → Security → Security of other services).

#### Pre-checkout service returns data (pre-checkout data)

**NOTE:** Merchant should save long-access token (element <LongAccessToken>)! Longaccess token is a one-time token and cannot be used more than once.

#### Pre-checkout data XML example:

```
<PrecheckoutDataResponse>
  <PrecheckoutData>
    <Cards>
      <Card>
        <BrandId>master</BrandId>
        <BrandName>MasterCard</BrandName>
        <CardHolderName>Joe Cardholder</CardHolderName>
        <ExpiryMonth>2</ExpiryMonth>
        <ExpiryYear>2016</ExpiryYear>
        <CardId>10153047</CardId>
        <LastFour>2149</LastFour>
        <CardAlias>Rewards Card</CardAlias>
        <SelectedAsDefault>>false</SelectedAsDefault>
      </Card>
      <Card>
        <BrandId>master</BrandId>
        <BrandName>MasterCard</BrandName>
        <CardHolderName>Joe Cardholder</CardHolderName>
        <ExpiryMonth>2</ExpiryMonth>
        <ExpiryYear>2016</ExpiryYear>
        <CardId>12963120</CardId>
        <LastFour>0144</LastFour>
        <SelectedAsDefault>>true</SelectedAsDefault>
      </Card>
    </Cards>
    <Contact>
      <FirstName>Joe</FirstName>
      <LastName>Cardholder</LastName>
      <Country>US</Country>
      <EmailAddress>joe.cardholder@gmail.com</EmailAddress>
      <PhoneNumber>1-6365555309</PhoneNumber>
    </Contact>
    <ShippingAddresses>
      <ShippingAddress>
        <City>chesterfield</City>
```

```

        <Country>US</Country>
        <CountrySubdivision>US-MO</CountrySubdivision>
        <Line1>123 main st</Line1>
        <Line2/>
        <Line3/>
        <PostalCode>63017</PostalCode>
        <RecipientName>Joe Cardholder</RecipientName>
        <RecipientPhoneNumber>1-6365555309</RecipientPhoneNumber>
        <AddressId>10423457</AddressId>
        <SelectedAsDefault>true</SelectedAsDefault>
    </ShippingAddress>
    <ShippingAddress>
        <City>St Louis</City>
        <Country>US</Country>
        <CountrySubdivision>US-MO</CountrySubdivision>
        <Line1>11642 Frontier Dr</Line1>
        <Line2/>
        <Line3/>
        <PostalCode>63146</PostalCode>
        <RecipientName>Joe Cardholder</RecipientName>
        <RecipientPhoneNumber>1-6365555309</RecipientPhoneNumber>
        <AddressId>10073359</AddressId>
        <SelectedAsDefault>false</SelectedAsDefault>
    </ShippingAddress>
</ShippingAddresses>
<WalletName>Mobile</WalletName>
<PrecheckoutTransactionId>a4d6x6s-55pqrj-hyko44a5-1-hyq76c51-
a4a</PrecheckoutTransactionId>
<ConsumerWalletId>10073003</ConsumerWalletId>
</PrecheckoutData>
<WalletPartnerLogoUrl>https://www.masterpass.com/walletlogo.png
</WalletPartnerLogoUrl>
<MasterpassLogoUrl>https://www.masterpass.com/masterpasslogo.png
</MasterpassLogoUrl>
<LongAccessToken>a2abae6b0b21be8fc23113bf8477a7dd1f0f4041</LongAccessToken>
</PrecheckoutDataResponse>

```

#### 4.15.5.5 Masterpass checkout/purchase with pre-checkout data (Connected checkout)

To start the MPW checkout/purchase merchant should add following parameters to the request.

Additional mandatory request parameters

uppMpwConnectedCheckout	yes/no	Request connected checkout
uppMpwCardId		Valid payment card ID. Value can be obtained with pre-checkout service (4.15.5.4) Element <CardId>.
uppMpwPrecheckoutTransactionId		Helps the wallet identify the wallet account for which pre-checkout data is provided. Value can be obtained with pre-checkout service (4.15.5.4). Element <PrecheckoutTransactionId>.
uppMpwWalletName		Required to uniquely identify wallet name. Value can be obtained with pre-checkout service (4.15.5.4). Element <WalletName>.

uppMpwConsumerWalletId		Required to uniquely identify consumer. Value can be obtained with pre-checkout service (4.15.5.4). Element <ConsumerWalletId>.
------------------------	--	---

Additional optional request parameters

uppMpwShippingId		Valid shipping destination ID. Value can be obtained with pre-checkout service (4.15.5.4). Element <AddressId>.
------------------	--	---

## 4.16 Accarda Kauf-auf Rechnung

### 4.16.1 Additional mandatory request parameters

uppCustomerType	A1	Either P (=person) or C (=company)
uppCustomerGender	AN6	Either „Male“ or „Female“
uppCustomerFirstName	AN100	First name of consumer
uppCustomerLastName	AN100	Last name of consumer
uppCustomerBirthDate	Date	Consumers date of birth; format: “dd.mm.yyyy” or “yyyy-mm-dd”
uppCustomerStreet	AN100	Street name
uppCustomerLanguage	A2	Language of consumer; values: de, fr, it If parameter is not submitted, de is default.
uppCustomerCity	AN100	City
uppCustomerZipCode	AN10	Postal code
uppCustomerCountry	A3	ISO country code (alpha)

### 4.16.2 Additional mandatory request parameters for B2B only

uppCustomerName	AN100	Name of company
uppCustomerCompanyLegalForm	AN40	Legal form of the company

### 4.16.3 Optional request parameters

accardaEnableStreetSplit	A	True/false. If true the uppCustomerStreet will be splitted into streetName and streetNumber
accardaBasket	AN	XML representation of the Accarda eshop basket containing the total amount and the products that needs to be credited. This parameter is returned from Datatrans to the merchant after the authorization process as a base64 encoded string and can be used for future partial credit requests.
uppCustomerEmail	AN100	Email address
uppCustomerStreet2	AN100	Street number
uppCustomerTitle	AN40	Title of the customer
sub_pmethod	AN	Either INVOICE or INSTALLMENT
authorizationId	N	The authorization id returned by the succesful credit decision

		check
uppRebate	N	The percent of rebate applied to the shopping basket
uppOtherPaymentMeansAmount	N	Amount in the basket payed by coupon or other payment instruments
uppShippingDetails	yes/no	If "yes" all shipping parameters are mandatory except uppShippingStreet2 remains optional.
uppShippingTitle	AN	Title of the recipient
uppShippingFirstName	AN40	First name of recipient
uppShippingLastName	AN40	Last name of recipient
uppShippingStreet	AN40	Street address of recipient
uppShippingStreet2	AN40	Street address of recipient
uppShippingZipCode	A	Postal code of recipient
uppShippingCity	AN40	City of recipient
uppShippingCountry	A3	ISO country code (alpha) of recipient
uppInvoiceType	AN	Either „physical“ or „electronic“
uppPhysicalInvoicePrice	N	Physical invoice price including VAT
uppPhysicalInvoiceTax	N	Physical invoice VAT percent
uppPhysicalInvoicePriceWithoutVAT	N	Physical invoice price without VAT
uppPhysicalInvoiceTaxAmount	N	Physical invoice VAT amount
uppArticle_1_Id	AN	Identifier for the product
uppArticle_1_Name	AN	Name of the product
uppArticle_1_Type	AN	Category of the product
uppArticle_1_Quantity	N	Quantity of product
uppArticle_1_Price	N	Product unit price including VAT
uppArticle_1_Tax	N / DN	VAT rate for this product
uppArticle_1_PriceWithoutVAT	N	Product unit price without VAT
uppArticle_1_TaxAmount	N	VAT amount for this product
uppFee_1_Id	AN	Identifier for the fee
uppFee_1_Name	AN	Name of the fee
uppFee_1_Type	AN	Category of the fee
uppFee_1_Quantity	N	Quantity of fee
uppFee_1_Price	N	Fee unit price including VAT
uppFee_1_Tax	N / DN	VAT rate for this fee
uppFee_1_PriceWithoutVAT	N	Fee unit price without VAT
uppFee_1_TaxAmount	N	VAT amount for this fee

#### 4.16.4 Additional response parameters of credit decision and authorization request

accardaBasket	AN	XML representation of the Accarda eshop basket containing the total amount and the products. This parameter is base64 encoded and can be used for future partial credit requests.
installmentPlan	AN	XML representation of the instalment plan returned by the successful credit decision check. This parameter is base64 encoded.
authorizationId	N	The authorization id returned by the succesful credit decision check



Information for multiple products and fees can be submitted by adding additional parameters for article. The names of the additional parameters for articles are defined as: uppArticle\_2\_Id, uppArticle\_2\_Name, etc. The names of the additional parameters for fees are defined as: uppFee\_2\_Id, uppFee\_2\_Name, etc. Datatrans provides also a technical interface to check ("pre-screening") if Accarda Kauf-auf Rechnung is eligible for a consumer. Please refer to Datatrans Support for XML-examples.

## 4.17 Byjuno

### 4.17.1 Additional mandatory request parameters

uppCustomerType	A1	Either P (=person) or C (=company)
uppCustomerGender	AN40	Either „Male“ or „Female“
uppCustomerFirstName	AN35	First name of consumer
uppCustomerLastName	AN35	Last name of consumer
uppCustomerEmail	AN50	Email address
uppCustomerId	AN	Identifier for a customer
uppCustomerLanguage	A2	Language of the customer; values: en, de, fr, it
uppCustomerStreet	AN50	Street name
uppCustomerCity	AN50	City
uppCustomerZipCode	AN8	Postal code
uppCustomerCountry	A3	ISO country code (alpha)
intrumDeviceFingerprintId	AN35	Identification of the customer in the shop (ex email address)

### 4.17.2 Additional mandatory request parameters for B2B only

uppCustomerName	AN60	Name of company
uppCustomerCompanyRegisterNumber	AN35	Register number of the company

### 4.17.3 Optional request parameters

uppCustomerBirthDate	Date	Consumers date of birth; format: "dd.mm.yyyy" or "yyyy-mm-dd"
uppCustomerCellPhone	AN50	Mobile phone number
uppCustomerPhone	AN50	Phone number
uppCustomerStreet2	AN35	Street number
sub_pmethod	AN	Either INVOICE, INSTALLMENT, BYJUNO-SINGLE-INVOICE, BYJUNO-INVOICE or BYJUNO-ACCOUNT
uppShippingDetails	yes/no	If "yes" all shipping parameters are mandatory
uppShippingFirstName	AN35	First name of recipient
uppShippingLastName	AN35	Last name of recipient
uppShippingStreet	AN35	Street address of recipient
uppShippingStreet2	AN35	Street address of recipient
uppShippingZipCode	AN35	Postal code of recipient
uppShippingCity	AN35	City of recipient
uppShippingCountry	A3	ISO country code (alpha) of recipient

intrumDeliveryMethod	AN	One of <ul style="list-style-type: none"> <li>• "POST" - Delivery by Swiss Post</li> <li>• "SHOP" - Point of Sale</li> <li>• "HLD" - Home Delivery Service</li> </ul>
intrumCustomerEmailConfirmed	B	Can be "true" or "false" to indicate that customer has confirmed the email address to the merchant. It has a default value of "false" if missing.

#### 4.17.4 Additional response parameters of credit decision check

allowedPaymentMethods	AN	List of the available payment options returned by a successful credit decision check.
-----------------------	----	---

Datatrans provides also a technical interface to check ("pre-screening") if Byjuno is eligible for a consumer. Please refer to Datatrans Support for XML-examples.

The refno AN18 of the merchant order will be forwarded to Byjuno and has to be unique.

## 5 Alias

PCI Security Standards do no longer allow the storing and processing of credit card numbers and CVVs on the merchants system. In some situations though, it is necessary to have the card information on the merchants system. You will therefore use the alias.

The system generates for every card number one alias. The CVVs must still not be stored and processed by the merchants system.

The alias can be used in Standard and Hidden Mode and is requested with the parameter useAlias=yes.

## 6 Security Option

### 6.1 Data transfer encryption

The entire data transfer between the merchant's shop application and the Datatrans payment application is secured by the secure SSL protocol.

### 6.2 Digital signature

The security elements are described on <https://payment.datatrans.biz>.

Security

☒
**No additional security element will be send with payment messages**

☐
 An additional merchant identification will be send with payment messages  
 The parameter **sign** with following value must be sent with every authorisation message  
 sign =

☐
 Important parameters will be digitally signed (HMAC-MD5) and sent with payment messages  
 The parameter **sign** must be sent with every authorisation message.  
 It contains a digital signature (an encrypted HashCode HMAC-MD5 in hexadecimal format).  
 Signed are parameters MerchantId, Amount, Currency and Reference number (concatinated)  
 Your HMAC key (in hexadecimal format):  

db e9293f5d7a5a71eb6d5b35e5397752d07e48c38f

The key must be converted from hex to byte format before using  
 → [Example](#)

Update

\* With the activation of the security feature the request parameter "sign" becomes mandatory!

#### 6.2.1 Security level 0

The data transmission is not secured.

#### 6.2.2 Security level 1

The data transmission is secured by sending of the parameter sign which must contain a merchant-specific control value (constant). This value is generated in the merchant administration tool <https://payment.datatrans.biz>. Note that with every change of this value (which is possible at any time), the interface accepts the current value only!

#### 6.2.3 Security level 2

The data transmission is secured by sending the parameter sign, which must contain a digital signature generated by a standard HMAC-SHA-256 hash procedure and using a merchant-specific encryption key. The HMAC key is

generated by the system and can be changed at any time in the merchant administration tool <https://payment.datatrans.biz>.

\*

- With every change of the key, the interface accepts signature based on the current key only!
- The key is delivered in hexadecimal format, and it should also be stored in this format.  
But before its usage the key must be translated into byte format!
- "sign2" is only returned in success case

#### 6.2.4 Creation of the digital signature (value of parameter sign) in the request

- translate HMAC key from hex to byte format
- create string to be signed by concatenating of parameters
  - merchantId
  - amount
  - currency
  - refno
 in exactly this order and without separators
- sign the string using HMAC-SHA-256 procedure based on merchant's HMAC key
- translate signature from byte to hex format and associate it as value with parameter sign

##### 6.2.4.1 Creation of signature if PayPalOrderId=get is used

Use the same procedure as described under 6.2.4 but use different parameter concatenation:

- merchantId
- amount
- currency
- refno
- "PayPalOrderId" (The string value)

##### 6.2.4.2 Creation of signature of uppAliasOnly=true is used

Use the same procedure as described under 6.2.4 but use different parameter concatenation:

- merchantId
- "uppAliasOnly" (The string value)
- currency
- refno

### 6.2.5 Sign2

The system signs the response similarly to the way the merchant does.

It passes the signature back to the merchant in parameter "sign2", which is created in the same way as the parameter sign. There is one difference: the signed string contains the parameter **"uppTransactionId" instead of the reference number "refno"**. We recommend checking the response signature.

For an even higher security level, it's also possible to generate **an alternative key for the "sign2" parameter**. With this feature "sign2" is created with a different key. To enable it the option "

Use another key for sign2 generation" has to be activated in UPP Admin in the menu "Security".

As an option it is also possible **to sign XML settlements**. To enable this feature in UPP Admin, go to "Security" and activate "Use signature also with settlements".

Example: `sign2=merchantId+amount+currency+uppTransactionId`

#### 6.2.5.1 sign2 if PayPalOrderId=get is used

`sign2=merchantId+amount+currency+uppTransactionId+"PayPalOrderId"`

#### 6.2.5.2 sign2 parameter if uppAliasOnly=true is used

`sign2=merchantId+"0"+currency+uppTransactionId`

\* Once the signature validation for settlement is activated, the parameter "sign" will be validated with each XML settlement request.

## 7 Test Procedure

For test purposes you need a dedicated test account. The test account is only working in the test environment and with test credit cards. For ordering a test account, please refer to <https://www.datatrans.ch/en/technics/test-account>

Please find test samples here: [www.datatrans.ch/showcase](http://www.datatrans.ch/showcase)

### 7.1 Test credit cards

In order to test the error handling of the e-shop application the developer has to use our test card numbers which create dedicated error messages depending on the authorized amount:

Card type	Card number	Expiration Date	CVV	Country	Test rule	Support 3D
Visa	4242424242424242	12/2018 or 06/2018	123	CHE	With limit	No
Visa	49000000000000086	12/2018 or 06/2018	123	USA	Without limit	Yes
Visa	49000000000000003	12/2018 or 06/2018	123	USA	Without limit	Yes
MasterCard	54040000000000001	12/2018 or 06/2018	123	RUS	With limit	Yes
MasterCard	52000000000000007	12/2018 or 06/2018	123	MYS	Without limit	No
MasterCard	52000000000000080	12/2018 or 06/2018	123	MYS	Without limit	Yes
Amex	3758111111111115	12/2018 or 06/2018	1234		With limit	No
Amex	3750000000000007	12/2018 or 06/2018	1234		Without limit	Yes
Amex	3758111111111123	12/2018 or 06/2018	1234		Without limit	No
Diners	36168002586009	12/2018 or 06/2018	123		With limit	-
Diners	36167719110012	12/2018 or 06/2018	123		Without limit	-
JCB	3569990010030442	12/2018 or 06/2018	123		With limit	-
JCB	3569990010030400	12/2018 or 06/2018	123		Without limit	-
AirPlus	122000200924770	12/2018 or 06/2018		CHE	With limit	-
AirPlus	192072420096379	12/2018 or 06/2018		CHE	Without limit	-

#### 7.1.1 Test rules

The following test rules apply for all cards **with limit** (see column "Test rule"):

Amount / amount range	Error message
<= 90.--	Transaction authorized
> 90.— and <= 100.—	Transaction declined (i.e. insufficient limit, bad expiry date)
> 100.— and <= 110	Referral
> 110.--	Card blocked (lost or stolen)

\* Note that all card numbers only work in our test environment! Productive cards cannot be processed on the test account.

## 7.2 PostFinance

PostFinance does no longer provide any test card numbers.

For tests you can use a productive PostFinance card number on your test account (Pilot application). The amount will not be charged on your card.

## 7.3 CreditPass ELV (Elektronisches Lastschrift Verfahren)

Test option for German ELV available upon request.

"Old" parameters for ELV:

bankaccount	bankrouting	Restriction
1234512345	12345678	if > 90.00 → declined
5432154321	12345678	no restriction

New parameters for SEPA ELV:

IBAN	BIC	Restriction
DE85123456781234512345	AGIDDEFF	if > 90.00 → declined
DE12123456785432154321		no restriction

## 7.4 MyOne

Test option for MyOne available upon request.

Card number: 6004520200668702072

Expiration year: 2018

Expiration month: 12

CVV: 123

The same test rules apply for MyOne as for the test credit cards.

## 7.5 Dankort

Card number: 5019994000124034

Expiration year: 2018

Expiration month: 12

CVV: 747

## 7.6 PayPal

There is no generic test account provided by PayPal. However, it's possible to create a sandbox account on <http://developer.paypal.com>.

Important steps:

- Create a new seller account and set the country to Germany
- Assign password and add to "notes"
- Add account balance of max. 9999.—

Then set all API permissions according to this PDF document:

PayPal manual EN: [https://www.datatrans.ch/userobjects/4421\\_3509\\_PayPal\\_Anleitung\\_EN\\_Web.pdf](https://www.datatrans.ch/userobjects/4421_3509_PayPal_Anleitung_EN_Web.pdf)

PayPal manual DE: [https://www.datatrans.ch/userobjects/2920\\_446\\_PayPal\\_Anleitung\\_DE\\_Web.pdf](https://www.datatrans.ch/userobjects/2920_446_PayPal_Anleitung_DE_Web.pdf)

PayPal manual FR: [https://www.datatrans.ch/userobjects/3939\\_2368\\_PayPal\\_Anleitung\\_FR\\_Web.pdf](https://www.datatrans.ch/userobjects/3939_2368_PayPal_Anleitung_FR_Web.pdf)

They need to be assigned manually!

As "Third Party Permission Username" please use "**info\_api1.datatrans.ch**".

Please find below a more detailed documentation from PayPal. Note that this document is only available in German. [https://www.paypalobjects.com/webstatic/de\\_DE/downloads/erstellen\\_eines\\_paypal\\_sandbox\\_accounts.pdf](https://www.paypalobjects.com/webstatic/de_DE/downloads/erstellen_eines_paypal_sandbox_accounts.pdf)

Please send the PayPal user name (e-mail address) [support@datatrans.ch](mailto:support@datatrans.ch). Datatrans needs this information in order to add PayPal to the merchant's dedicated test account.

\* Note that – before going live - PayPal doesn't work in a frame, you have to use the full window for a PayPal transaction. Authorized PayPal transactions expire within 30 days. Please contact PayPal if you wish to re-authorize a payment which is older than 30 days.

## 7.7 Deltavista

<b>uppCustomerFirstName</b>	Johnny	
<b>uppCustomerLastName</b>	Good	Returns "green"
	Bad	Returns "red"
<b>uppCustomerStreet</b>	Test Street	
<b>uppCustomerStreet2</b>	13	
<b>uppCustomerCity</b>	Test City	
<b>uppCustomerCountry</b>	CHE	
<b>uppCustomerZipCode</b>	8000	
<b>uppCustomerType</b>	P	

## 7.8 MFGroup Checkout

<b>uppCustomerFirstName</b>	Good	Bad	Unknown
<b>uppCustomerLastName</b>	Customer	Customer	Customer
<b>uppCustomerStreet</b>	via Streccione 2	via paradiso 5	via castello 4
<b>uppCustomerCity</b>	Lugano	Locarno	Bellinzona
<b>uppCustomerCountry</b>	CH	CH	CH
<b>uppCustomerZipCode</b>	6900	6600	6500
<b>uppCustomerGender</b>	male	male	male
<b>uppCustomerLanguage</b>	it	it	it
<b>uppCustomerBirthDate</b>	1980-01-01	1.2.1980	1.3.1980
<b>uppCustomerEmail</b>	example@mfgroup.ch	badexample@mfgroup.ch	badexample@mfgroup.ch



## 7.9 Address Verification Service

### Preconditions

- The merchant has the general Fraud Monitor enabled
- The merchant has an acquirer which supports AVS, e.g. Worldpay or Chase Paymentech
- uppCustomerStreet and uppCustomerZipCode are submitted to UPP

Card number: 4900000000000011 and 5200000000000015  
 Expiration year: 2018  
 Expiration month: 12  
 CVV: 123

The following rules apply

amount<=500	Authorized	
500<amount<=1000	Authorized	avsResult=A
1000<amount<=1500	Authorized	avsResult=B
1500<amount<=2000	Authorized	avsResult=C
2000<amount<=2500	Authorized	avsResult=D
2500<amount<=3000	Authorized	avsResult=E
3000<amount<=3500	Authorized	avsResult=G
3500<amount<=4000	Authorized	avsResult=I
4000<amount<=4500	Authorized	avsResult=M
4500<amount<=5000	Authorized	avsResult=N
5000<amount<=5500	Authorized	avsResult=O
5500<amount<=6000	Authorized	avsResult=P
6000<amount<=6500	Authorized	avsResult=R
6500<amount<=7000	Authorized	avsResult=S
7000<amount<=7500	Authorized	avsResult=U
7500<amount<=8000	Authorized	avsResult=W
8000<amount<=8500	Authorized	avsResult=X
8500<amount<=9000	Authorized	avsResult=Y
9000<amount<=9500	Authorized	avsResult=Z
9500<amount<=10000	-50	Declined
10000<amount<=11000	-59	Declined / referral
11000<amount	-42	Declined / card blocked

## 7.10 Maestro

Test option for Maestro available upon request.

Card number: 6759000000000018 and 6759000000000026 (with limit)  
 Expiration year: 2018  
 Expiration month: 12  
 CVV: 123

The same test rules apply for Maestro as for the test credit cards.

## 7.11 Jelmoli Bonus Card

Test option for Jelmoli Bonus Card available upon request.

Card number: 60045110000000008 and 60045110000000016 (with limit)

Expiration year: 2018

Expiration month: 12

CVV: 123

The same test rules apply for Jelmoli Bonus Card as for the test credit cards.

## 7.12 SOFORT Überweisung

### Test data for CHF

Bank Routing: 00000

Account number: any value

PIN: any value

### Test data for EUR

Bank Routing: 88888888

Account number: any value

PIN: any value

## 7.13 iDeal

iDeal does not provide any test data, and cannot be tested in the test environment.

\* The refno of the merchant will be forwarded as purchase\_id to iDeal. The field size of purchase\_id is limited to 16AN, and has to be unique. Special characters are not supported!

## 7.14 SwissBilling

### 7.14.1 Test data

uppCustomerFirstName	Johnny B.
uppCustomerLastName	Normal/Bad/Good
uppCustomerStreet	Limmatquai
uppCustomerStreet2	55
uppCustomerCountry	CH
uppCustomerCountry	Zurich
uppCustomerZipCode	8001

### 7.14.2 Test rules

uppCustomerLastName	amount	
	<= 9000	> 9000
Normal	Transaction authorized	Transaction declined
Bad	Transaction declined	Transaction declined
Good	Transaction authorized	Transaction authorized

## 7.15 MasterPass

### 7.15.1 Test wallet account data

Country and language: United States – English (US)

Wallet: MasterPass by MasterCard

Email address: Joe.test@email.com (Joe.test3@email.com)

Password: abc123

Answer to security question: fido

Select the payment card, shipping address and click button Finish shopping. List of payment cards is predefined and cannot be changed.

## 8 Error Codes

There is no final list of error codes. Please note that we do not recommend showing the exact error code or error message to the buyer. Instead, we recommend distinguishing between technical errors and errors sent from the issuer.

### 8.1 UPP and XML error codes

- 1001 required parameter missing
- 1002 format of parameter is not valid
- 1003 value not found
- 1004 card number is not valid
- 1006 card expired
- 1007 access denied by sign control
- 1008 access disabled by admin
- 1009 merchant paym.method init error
- 1010 action not allowed (not applicable transaction status)
- 1012 duplicate settlement request
- 1403 transaction declined without any further reason

## 8.2 Anti-fraud error codes

3001	IP address declined by global fraud mgmt.
3002	IP address declined by merchant fraud mgmt.
3003	CC number declined by global fraud mgmt.
3004	CC number declined by merchant fraud mgmt.
3005	IP address declined by group fraud mgmt.
3006	CC number declined by group fraud mgmt.
3011	declined by merchant fraud mgmt. - TRX per IP
3012	declined by group fraud mgmt. - TRX per IP
3013	declined by merchant fraud mgmt. - TRX per CC
3014	declined by group fraud mgmt. - TRX per CC
3015	declined by merchant fraud mgmt. - AMOUNT per CC
3016	declined by group fraud mgmt. - AMOUNT per CC
3021	declined by country filter - Unknown BIN/Country
3022	country declined by country filter
3023	declined by country verification - uppCustomerCountry missing
3024	declined by country verification - country does not match
3025	country declined by group country filter
3031	declined due to response code 02
3041	declined due to postPage response error
3051	declined due to country verification check
3061	declined due to unique refno check
3071	declined due to AVS check

## 8.3 Alias error codes

-885	CC-alias update error
-886	CC-alias insert error
-887	CC-alias does not match with cardno
-888	CC-alias not found
-889	CC-alias error / input parameter(s) missing
-900	CC-alias service is not supported
-999	General error

## 8.4 XML specific errors

2000	access denied by protocol control
2001	no input document
2002	error building document
2011	root element invalid
2012	body element missing
2013	merchantId missing
2014	element missing
2021	missing value
2022	invalid value
2031	offline authorization not allowed
2041	3D-Directory request not started
2042	3D-Directory request not finished
2043	3D-ACS process not started
2044	3D-ACS process not finished
2051	initialization UPP record not found
2097	internal error
2098	database error
2099	xml processing error