

API Specification

Addendum to the „Technical Implementation Guide“ for BillPay

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Revision control

Date	Changed by	Comments / nature of change
20.06.2013	Urs Kipfer	Initial release
15.08.2013	Katja Schlegel	Add information "mandatory"
17.03.2016	Robert Matei	Add information for BillPay Direct Debit (accountNumber and bankCode input parameters)
12.05.2016	Robert Matei	Realtime customer data transmission
21.11.2017	Robert Matei	PayLater

Introduction

The Datatrans BillPay integration is technically based on the payment page according to the *Datatrans Technical Implementation Guide* available on www.datatrans.ch/en/Payment-solutions/Technical-information.

The payment process consists of the following request categories:

- authorization / credit check
- settlement / capture
- settlement / credit
- cancel / reversal

Please note that we support BillPay Invoice (BPY), BillPay Direct Debit (BPD) and BillPay PayLater (BPL).

All required details (basic transaction data, customer details, line items) have to be collected by the merchant in a fully customised form. Note that currently, the test account for BillPay is not activated for shipping address to be different from billing address (BillPay will reject the request).

Authorization / credit check requests have to be submitted in *hidden mode* according to chapter 2 of the **Technical Implementation Guide**. Settlement and cancel requests have to be processed via our XML Settlement API.

In addition to other payment methods, BillPay transactions require customer details such as name and address of the buyer and also line item details.

1. Authorization / Credit Check

Parameters to be submitted with each transaction

BillPay order is preauthorized and autocaptured. In case of BillPay Invoice the accountNumber, accountHolder, bankName, bankCode, invoiceReference parameters are returned. The internal BillPay id (bptid) is returned as acqAuthorizationCode.

Example request (please see "1. Authorization - pilot.html" for a working sample form):

Basic transaction details

UPP parameter	Value	Description	Mandatory	BillPay corresponding field
<form name="uppform" action="https://pilot.datatrans.biz/upp/jsp/upStart.jsp" method="post" target="_blank">				
successUrl	https://pilot.datatrans.biz/upp/merchant/successPage.jsp		No	
errorUrl	https://pilot.datatrans.biz/upp/merchant/errorPage.jsp		No	
cancelUrl	https://pilot.datatrans.biz/upp/merchant/cancelPage.jsp		No	
uppCustomerDetails	yes		Yes	
hiddenMode	yes		Yes	
paymentmethod	BPY, BPD or BPL		Yes	
language	en		No	
merchantId	1100003268		Yes	
amount	350	amount in cents	Yes	
currency	CHF		Yes	
refno	abcde12345		Yes	
reqtype	NOA		No	
accountNumber	DE12500105170648489890	Customer Bank IBAN – Direct Debit and PayLater only	Yes	accountnumber
bankCode	INGDDEFFXXX	Customer Bank BIC – Direct Debit and PayLater only	Yes	sortcode

Customer details

UPP parameter	Value	Description	Mandatory	BillPay corresponding field
uppCustomerOccurence	EXISTING	EXISTING, REGISTERING, GUEST	Yes	customertype
uppCustomerGender	herr		Yes	salutation
uppCustomerEmail	max.mustermann@example.com	AN50	Yes	email
uppCustomerId	8574843	AN20	No	customerId
uppCustomerTitle	Dr		No	title
uppCustomerFirstName	Max	AN40	Yes	firstName
uppCustomerLastName	Mustermann	AN40	Yes	lastName
uppCustomerType	P	'P' for B2C, 'C' for B2B	No	
uppCustomerBirthDate	25.08.1979	dd.mm.yyyy	Yes	birthday
uppCustomerStreet	Spengergasse	AN40	Yes	street
uppCustomerStreet2	37	AN15	Yes	streetNo
uppCustomerStreet3		AN50	No	addressAddition
uppCustomerCity	Bern	AN40	Yes	city
uppCustomerZipCode	1050	AN5	Yes	zip
uppCustomerPhone	19876543	AN15	Yes	phone
uppCustomerCellPhone	177123443534	AN50	No	cellPhone
uppCustomerCountry	CHE/DEU/AUT		Yes	country

Parameters for shipping details

UPP parameter	Value	Description	Mandatory	BillPay corresponding field
uppShippingPrice	20	N7, nettovalue of all items in the basket, in smallest available unit	YES	shippingprice
uppShippingPriceGross	20	N7, bruttovalue of all items in the basket, in smallest available unit	YES	shippingpricegross
uppShippingCarrier		AN50 - "DHL", „Express-Versand“	YES	shippingname
uppShippingDetails	no	yes / no yes - shipping address different than billing no - same address for shipping (following fields not needed)	/No	
Shipping details must be filled according to their corresponding billing fields				
uppShippingGender			Yes	Shipping – salutation
uppShippingTitle			No	
uppShippingFirstName	Arthur	AN50	Yes	Shipping – firstName
uppShippingLastName	Shippenhauer	AN50	Yes	Shipping - lastName
uppShippingStreet	Spengergasse	AN50	Yes	Shipping - street
uppShippingStreet2	24	AN50	No	Shipping - streetNo
uppShippingStreet3	b	AN50	No	
uppShippingZipCode	2020	AN5	Yes	Shipping – zip
uppShippingCity	Rotkreuz	AN50	Yes	Shipping – city
uppShippingCountry	CHE	A3	Yes	Shipping – country
uppShippingPhone	1234	AN15	No	Shipping – phone
uppShippingCellPhone	1234	AN50	No	

Parameters for article details

UPP parameter	Value	Description	Mandatory	BillPay corresponding field
Article list details				
uppArticle_1_Id	PK4000	AN20	Yes	articleid
uppArticle_1_Name	Bottle Opener	AN50	Yes	articlename
uppArticle_1_Price	300	N7, nettoprice of one article in smallest available unit	Yes	articleprice
uppArticle_1_PriceGross	300	N7, bruttoprice of one article in smallest available unit	Yes	articlepricegross
uppArticle_1_Quantity	1	N7	Yes	articlequantity
uppArticle_1_Description	Nice gadget	AN50	No	articledesription
uppArticle_2_Id	PK4002	AN20	Yes	articleid
uppArticle_2_Name	Printer	AN50	Yes	articlename
uppArticle_2_Price	30	N7, nettoprice of one article in smallest available unit	Yes	articleprice
uppArticle_2_PriceGross	30	N7, bruttoprice of one article in smallest available unit	Yes	articlepricegross
uppArticle_2_Quantity	1	N7	Yes	articlequantity
uppArticle_2_Description		AN50	No	articledesription

Parameters for B2B transactions only

UPP parameter	Value	Description	BillPay corresponding field
Company details (ONLY for uppCustomerType = 'C')			
uppCustomerName	BillPay GmbH	AN40	BillPay field "name" in company details
uppCustomerCompanyLegalForm	gmbh		BillPay field "legalForm" in company details
uppCustomerCompanyRegisterNumber	HRB122029B		BillPay field "registerNumber" in company details
uppCustomerCompanyHolderName			BillPay field "holderName" in company details
uppCustomerCompanyTaxNumber	DE268874183		BillPay field "taxNumber" in company details

Please note that you use netto- and bruttovalue with the adequate amount. There is not field for discount.

Parameters for realtime customer data transmission

The „Known Good Customers“ flag will allow any merchant to ensure a unique and superior treatment of their customers. By delivering a payment history in the preauthorization process, BillPay will introduce individual scoring mechanisms and allow for a more seamless and positive customer experience in the checkout. – Please see BillPay documentation «Realtime Core Customer Transmission»

UPP parameter	Example Value	Description	Mandatory	BillPay corresponding field in order_history_data
uppRepeatCustomer	yes/on/true	AN	No	repeat_customer
uppMerchantCustomerLimit	2500	N – Numeric, smallest currency unit	No	merchant_customer_limit
Order history list				
uppHistory_X_OrderId	O-12345	AN20		horderid
uppHistory_X_Date	12.03.2015	DD.MM.YYYY		hdate
uppHistory_X_Amount	5000			hamount
uppHistory_X_Currency	CHF	ISO 4217 – 3 digit code		hcurrency
uppHistory_X_PaymentType	4	0: direct debit 1: credit card 2: payment in advance 3: Payment on delivery 4: PayPal 5: Sofortüberweisung 6: Open Invoice 7: BillPay		hpaymenttype
uppHistory_X_Status	0	0: paid 1: open/pending 2: In dunning 3: In debt collection 4: overpaid 5: underpaid 6: chargeback		hstatus
X starts with 1, is incremented for each order history item and can be repeated up to 500 items.				

Returned parameters:

uppCustomerEmail = max.mustermann@example.com
uppArticle_1_Description = Nice gadget
uppShippingDetails = no
uppCustomerGender = herr
amount = 350
refno = 1366874305811
reqtype = NOA
accountNumber = IBAN-CHE_CHF-004
uppCustomerCountry = CHE
uppShippingCarrier =
uppCustomerCellPhone = 0177123443534
uppArticle_1_Quantity = 1
uppArticle_2_Description =
uppCustomerBirthDate = 25.08.1979
merchantId = 1100003268
uppCustomerStreet = Spengergasse
uppShippingPriceGross = 20
uppArticle_2_Price = 30
responseCode = 01
status = success
uppArticle_2_PriceGross = 30
testOnly = yes
uppCustomerStreet2 = 37
uppCustomerStreet3 = -
bankName = PostFinance
invoiceReference = BP1366874305811/3517
bankCode = BIC-TEST-004
uppShippingPrice = 20
uppCustomerPhone = 19876543
accountHolder = BillPay GmbH
uppArticle_1_Id = PK4000
language = EN
acqAuthorizationCode = 134356eb-2f5a-4c2c-a32c-26be12a063a3
uppArticle_2_Id = PK4002
uppTransactionId = 130425091833617204
uppArticle_2_Quantity = 1
pmethod = BPY
uppCustomerCity = Bern
authorizationCode = 835207226
uppCustomerLastName = Mustermann
currency = CHF
uppCustomerZipCode = 1050
responseMessage =
hiddenMode = yes
uppArticle_2_Name = Printer
uppArticle_1_PriceGross = 300
uppArticle_1_Price = 300
uppCustomerOccurence = EXISTING
uppCustomerFirstName = Max1366874305811
uppMsgType = web
uppCustomerTitle = Dr
uppArticle_1_Name = Bottle Opener
uppCustomerDetails = yes
uppCustomerType = P
uppCustomerId = 8574843

The resulting transaction will be in status authorized:

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Transaction details [Back](#)

Transaction ID	130425091833617204	Card organisation	BillPay
Merchant-ID	1100003268	Contract no	3517
Transaction type	NOA / 05	Contract type	Internet SSL
Reference No	1366874305811	Card brand	BillPay
Currency	CHF	Merchant	Datatrans Billpay Test
Authorization datetime	25.04.13 09:18	XID	
Upp authorization code	835207226	CAVV/UCAF	
Acquirer authoriz.code	134356eb-2f5a-4c2c-a32c-26be12a063a3	3D status	
Authorized amount	3.50	Expiration date	25.05.13
Status	Authorized	Source	WEB-hidden / test mode
		Client IP	83.103.178.133

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[View customer address details](#)

Description note

Amount [Settle](#) [Cancel transaction](#) [Back](#)

Next possible steps:

- Settle (via manual or XML)
- Cancel (via manual or XML)

2. Settlement

Sent to Datatrans via XML

Sample request:

```
<?xml version="1.0" encoding="UTF-8" ?>
<paymentService version="1">
  <body merchantId="1100003268">
    <transaction refno="REF100UPD">
      <request>
        <amount>350</amount>
        <currency>CHF</currency>
        <uppTransactionId>130425091833617204</uppTransactionId>
      </request>
    </transaction>
  </body>
</paymentService>
```

Sample response:

```
<?xml version="1.0" encoding="UTF-8" ?>
<paymentService version="1">
  <body merchantId="1100003268" status="accepted">
    <transaction refno="REF100UPD" trxStatus="response">
      <request>
        <amount>350</amount>
        <currency>CHF</currency>
        <uppTransactionId>130425091833617204</uppTransactionId>
        <reqtype>COA</reqtype>
        <transtype>05</transtype>
      </request>
      <response>
        <responseCode>01</responseCode>
        <responseMessage>settlement succeeded</responseMessage>
        <accountNumber>IBAN-CHE_CHF-004</accountNumber>
        <accountHolder>BillPay GmbH</accountHolder>
        <bankName>PostFinance</bankName>
        <invoiceDueDate>15.05.2013</invoiceDueDate>
        <invoiceReference>BPREF100UPD/3517</invoiceReference>
        <bankCode>BIC-TEST-004</bankCode>
      </response>
    </transaction>
  </body>
</paymentService>
```

If the "refno" has different value from the one from previous authorization, the reference number will be updated to the new one and the order will be updated in BillPay (orderUpdate request).

The BillPay order will be activated (invoiceCreated)

Bank details are returned once more (now including also invoiceDueDate)

The resulting transaction will be in status Settled + transmitted:

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Transaction details [← Back](#)

Transaction ID	130425091833617204	Card organisation	BillPay
Merchant-ID	1100003268	Contract no	3517
Transaction type	NOA / 05	Contract type	Internet SSL
Reference No	REF100UPD	Card brand	BillPay
Currency	CHF	Merchant	Datatrans Billpay Test
Authorization date/time	25.04.13 09:18	XID	
Upp authorization code	835207226	CAVV/AUCAF	
Acquirer authoriz. code	134356eb-2f5a-4c2c-a32c-26be12a063a3	3D status	
Authorized amount	3.50	Source	WEB-hidden / test mode
Settlement date/time	25.04.13 09:22	Client IP	83.103.178.133
Settled amount	3.50		→ View transaction history
Transmission file No	/ null		→ View customer address details
Transmission date	25.04.13 09:22		
Status	Settled + transmitted	Description note	

Amount Net amount [Credit](#) [← Back](#)

Next possible steps:

- Credit (via manual or XML)

Note: Cancel is not possible at this point.

3. Credit

The credit method requires "amount" (like all other methods) and the newly added "netAmount".

The request "partialcancel" will be called at BillPay, using corresponding values rebateDecreaseGross (amount) and rebateDecrease (netAmount).

The "refno" parameter must be the same as used for settlement request.

Sample request:

```
<?xml version="1.0" encoding="UTF-8" ?>
<paymentService version="1">
  <body merchantId="1100003268">
    <transaction refno="REF100UPD">
      <request>
        <amount>100</amount>
        <netAmount>80</netAmount>
        <currency>CHF</currency>
        <uppTransactionId>130425091833617204</uppTransactionId>
        <transtype>06</transtype>
      </request>
    </transaction>
  </body>
</paymentService>
```

Sample response:

```
<?xml version="1.0" encoding="UTF-8" ?>
<paymentService version="1">
  <body merchantId="1100003268" status="accepted">
    <transaction refno="REF100UPD" trxStatus="response">
      <request>
        <amount>100</amount>
        <netAmount>80</netAmount>
        <currency>CHF</currency>
        <uppTransactionId>130425091833617204</uppTransactionId>
        <transtype>06</transtype>
        <reqtype>COA</reqtype>
      </request>
      <response>
        <responseCode>01</responseCode>
        <responseMessage>credit succeeded</responseMessage>
        <uppTransactionId>130425093841162560</uppTransactionId>
        <authorizationCode>841822561</authorizationCode>
        <acqAuthorizationCode>0</acqAuthorizationCode>
      </response>
    </transaction>
  </body>
</paymentService>
```

A new credit transaction will be shown in UPP web admin:

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Transaction details

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Transaction ID	130425093841162560	Card organisation	BillPay
Merchant-ID	1100003268	Contract no	3517
Transaction type	CAA / 06	Contract type	Internet SSL
Reference No	REF100UPD	Card brand	BillPay
Currency	CHF	Merchant	Datatrans Billpay Test
Authorization date/time	25.04.13 09:38	XID	
Upp authorization code	841822561	CAVV/JCAF	
Acquirer authoriz.code	134356eb-2f5a-4c2c-a32c-26be12a063a3	3D status	
Authorized amount	-1.00	Source	XML / test mode
Settlement date/time	25.04.13 09:38	Client IP	83.103.178.133
Settled amount	-1.00	Original transaction ID	130425091833617204
Transmission file No	/ null		
Transmission date	25.04.13 09:38		→ View transaction history
Status	Transmitted credit	Description note	

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4. Cancel

Sample request:

```
<?xml version="1.0" encoding="UTF-8" ?>
<paymentService version="1">
  <body merchantId="1100003268">
    <transaction refno="1366875886286">
      <request>
        <amount>350</amount>
        <currency>CHF</currency>
        <uppTransactionId>130425094455002748</uppTransactionId>
        <reqtype>DOA</reqtype>
      </request>
    </transaction>
  </body>
</paymentService>
```

Sample response:

```
<?xml version="1.0" encoding="UTF-8" ?>
<paymentService version="1">
  <body merchantId="1100003268" status="accepted">
    <transaction refno="1366875886286" trxStatus="response">
      <request>
        <amount>350</amount>
        <currency>CHF</currency>
        <uppTransactionId>130425094455002748</uppTransactionId>
        <reqtype>DOA</reqtype>
        <transtype>05</transtype>
      </request>
      <response>
        <responseCode>01</responseCode>
        <responseMessage>cancellation succeeded</responseMessage>
      </response>
    </transaction>
  </body>
</paymentService>
```

No operation is done on BillPay, the transaction is marked as canceled and invoice activation (settlement) will not be possible anymore.

The transaction is shown as canceled:

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Transaction ID	130425094455002748	Card organisation	BillPay
Merchant-ID	1100003268	Contract no	3517
Transaction type	NOA / 05	Contract type	Internet SSL
Reference No	1366875886286	Card brand	BillPay
Currency	CHF	Merchant	Datatrans Billpay Test
Authorization date/time	25.04.13 09:44	XID	
Upp authorization code	456502770	CAVV/UCAF	
Acquirer authoriz code	07bc0fb4-a8a6-403e-bb33-3dd483125581	3D status	
Authorized amount	3.50	Source	WEB-hidden / test mode
Status	Canceled	Client IP	83.103.178.133

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[Description note](#)

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