

# Bluecode

## About Bluecode

### General information about Bluecode

#### What is Bluecode?

Bluecode is the first pan-European mobile payment solution that enables cashless payments via Android smartphone, iPhone and Apple Watch combined with value-added services in a single technology platform. In accordance with European data protection standards, no personal data is ever exchanged with participating banks or merchants thus none is stored or transmitted on the mobile phone during the payment process. The highly secure, TAN-based payment system works with all checking accounts and is independent from the transmission technology (barcode, QR code, bluetooth).

Bluecode started in 2017 in Austria. Since 2018, Alipay users have also been benefiting from a cooperation between Bluecode and Alipay. The expansion into the German market took place in the same year.

#### How do customers link Bluecode to their bank account?

With Bluecode there are two ways app users can link their bank account:

1. With partner banks, they can register immediately and directly in their bank's app or online banking. This registration is particularly fast and possible at all Bluecode partner banks.
2. At all other banks, you can register using a SEPA direct debit procedure. The direct debit mandate is stored and the payment processed by [SIX Payment Services Ltd](#). SIX is a company audited by the Financial Market Authority and one of the largest direct debit processors in the German-speaking countries.

#### Are there payment limits when paying with Bluecode?

For security reasons Bluecode limits the number of payments to four payments per hour and ten payments per day with a transaction limit of 400€. This may vary depending on the issuer.

#### How does the Bluecode QR code payment work?

Bluecode QR Code Payment is a variant of eCommerce Payment. The checkout system (merchant's shop) produces a QR Code according to the payment data by calling a Bluecode API via Paygate, and then the customer scans the QR Code with his mobile device to finish the payment.

Logo	
Info	Bluecode is the first pan-European mobile payment solution that enables cashless payments via Android smartphone, iPhone and Apple Watch combined with value-added services in a single technology platform. In accordance with European data protection standards, no personal data is ever exchanged with participating banks or merchants thus none is stored or transmitted on the mobile phone during the payment process. The highly secure, TAN-based payment system works with all checking accounts and is independent from the transmission technology (barcode, QR code, bluetooth).
Type	<a href="#">Payments by eWallet</a>

Further information you will find also on the website of Bluecode (<https://bluecode.com/de-de/b2b/haendler/>, <https://bluecode.com/en/b2b/merchants/>).

## Use cases

Supported use cases			Supported interfaces					
Use case	Description	Simple process	S-2-S	Form-based	Batch	Analytics PayByLink	HPP	CTSF

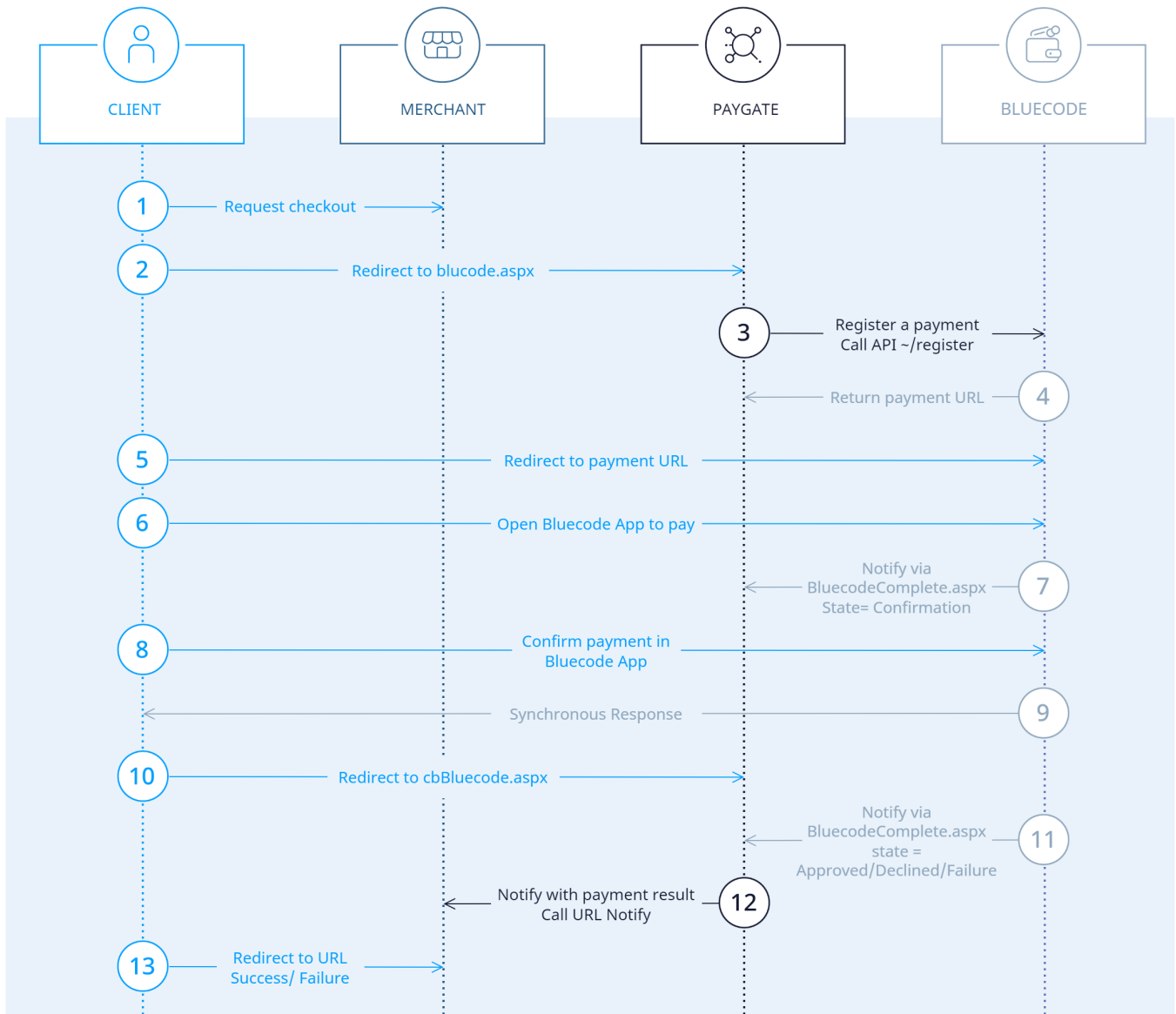
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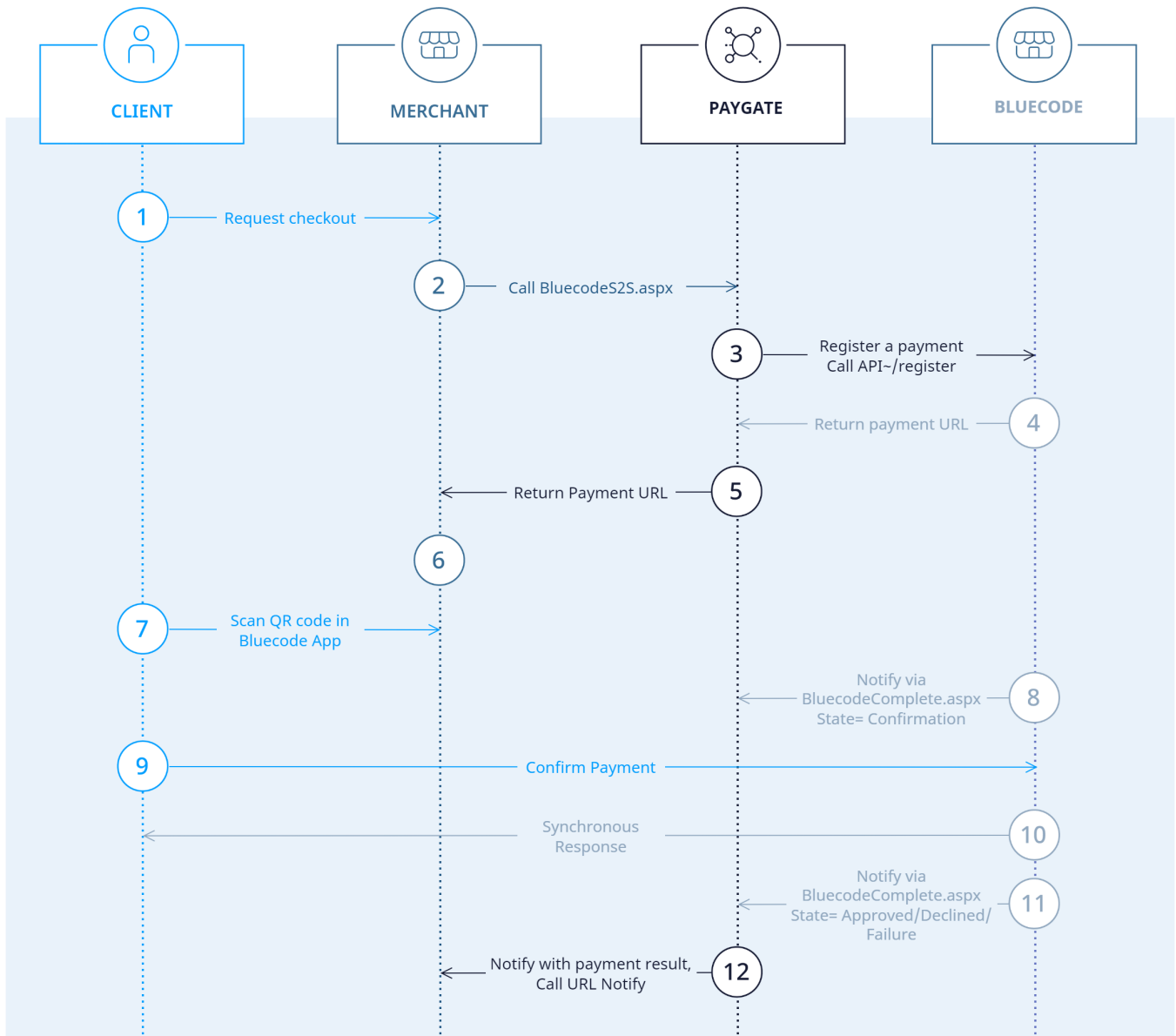
Authorization + Capture	Merchant wants to authorize payment and capture on delivery	<ul style="list-style-type: none"> <li>not supported</li> <li>use "Sale" instead to authorize and capture a payment within one step</li> </ul>						
Sale	Merchant wants to collect money from customer via Bluecode	<ul style="list-style-type: none"> <li>Merchant's shop initiates Bluecode payment request and receives URL to QR-Code</li> <li>Customer scans QR-Code using the Bluecode App</li> <li>Customer confirms payment in Bluecode App</li> <li>Merchant's shop gets a notification about successful payment</li> </ul>		✓				✓
full or partial Credit	Merchant wants to credit some money back to customer after a payment has been successfully completed	<ul style="list-style-type: none"> <li>Merchant initiates credit request</li> <li>Computop collects Bluecode details from referred payment and initiates Bluecode credit</li> <li>Merchant's shop gets a notification about successful credit</li> </ul>	✓		✓			
CTSF	CTSF for reconciliation	<ul style="list-style-type: none"> <li>download settlement file from service provider</li> <li>create CTSF for merchant</li> </ul>						

## Process flow charts

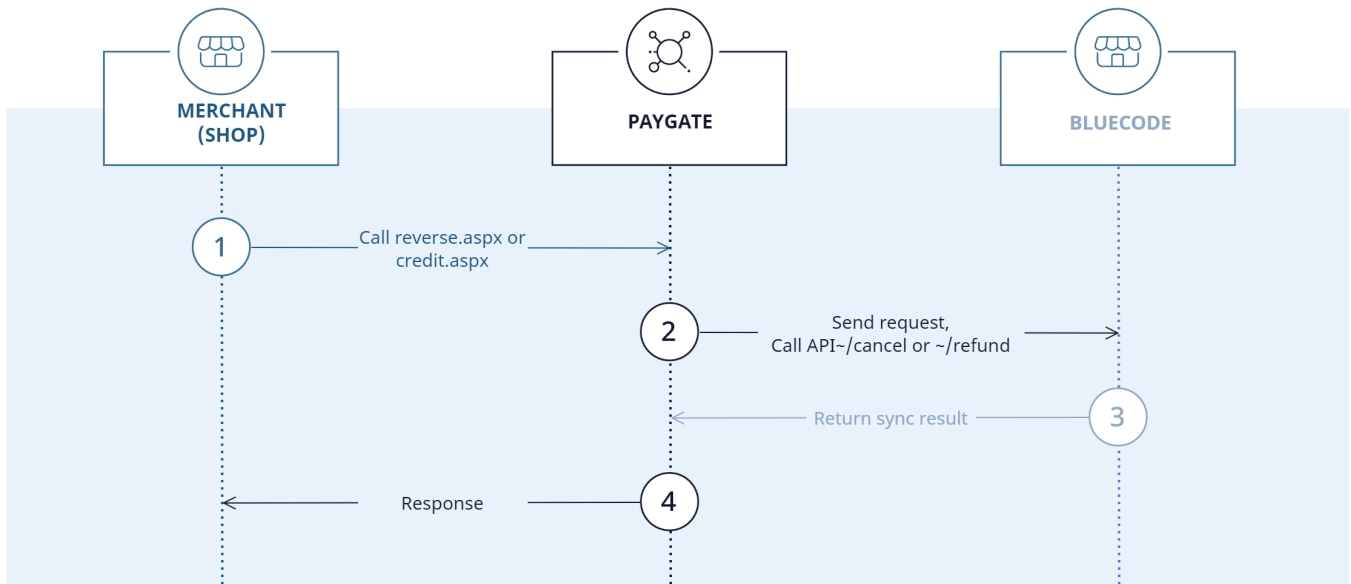
### Sale, Client-to-Server



**Sale, Server-to-Server**



## Reversal / Credit, Server-to-Server



## Paygate interface

### Definitions

#### Data formats

Format	Description
a	alphabetical
as	alphabetical with special characters
n	numeric
an	alphanumeric
ans	alphanumeric with special characters
ns	numeric with special characters
bool	boolean expression (true or false)
3	fixed length with 3 digits/characters
..3	variable length with maximum 3 digits/characters
enum	enumeration of allowed values
dtm	ISODatetime (YYYY-MM-DDThh:mm:ss)

#### Abbreviations

Abbreviation	Description	Comment
CND	condition	
M	mandatory	If a parameter is mandatory, then it must be present
O	optional	If a parameter is optional, then it can be present, but it is not required
C	conditional	If a parameter is conditional, then there is a conditional rule which specifies whether it is mandatory or optional

**Notice:** Please note that the names of parameters can be returned in upper or lower case.

## Calling the interface for a Bluecode Website payment with QR Code (Sale)

Cancellations and credits are available for Bluecode payments as described in the sections below. Only credits are available in batch mode. For point-of-sale transactions please use connection for Bluecode QR Code payment.

Use the following URL to process an Bluecode QR Code payment via redirect to the Bluecode form:

<https://www.computop-paygate.com/Bluecode.aspx>

Use the following URL to process an Bluecode QR Code payment via Server-to-Server connection – you have to transform the Bluecode URL into a QR Code:

<https://www.computop-paygate.com/BluecodeS2S.aspx>

**Notice:** For security reasons, Computop Paygate rejects all payment requests with formatting errors. Therefore, please use the correct data type for each parameter.

The following table describes the [encrypted payment request parameters](#):

Key	Format	CND	Description
<a href="#">MerchantID</a>	ans..30	M	MerchantID, assigned by Computop. Additionally this parameter has to be passed in plain language too.
<a href="#">TransID</a>	ans..64	M	TransactionID provided by you which should be unique for each payment
<a href="#">RefNr</a>	ans..30	O	Reference which must be unique for each payment - if present; this value may be printed on the consumers bank account (depending on the consumers bank).
<a href="#">Amount</a>	n..10	M	Amount in the smallest currency unit (e.g. EUR Cent). Please contact the <a href="#">Computop Helpdesk</a> , if you want to capture amounts <100 (smallest currency unit).
<a href="#">Currency</a>	A3	M	Three digits DIN / ISO 4217. Currently only EUR is supported. Please find an overview here: <a href="#">A1 Currency table EN</a>
<a href="#">MAC</a>	an64	M	Hash Message Authentication Code (HMAC) with SHA-256 algorithm. Details can be found here: <ul style="list-style-type: none"><li><a href="#">HMAC Authentication (Request)</a></li><li><a href="#">HMAC Authentication (Notify)</a></li></ul>
<a href="#">Order Desc</a>	ans..26	O	An optional further identifier for this transaction. Assumed to be printed on customer receipt and used to identify the transaction given the slip. The format of this ID can be freely chosen by the caller and is not validated.
<a href="#">ShopURL</a>	an..128	O	URL of web shop, for example: <a href="https://testmerchant.com">https://testmerchant.com</a>
<a href="#">AccOwner</a>	ans..50	M	Name of account holder
<a href="#">IBAN</a>	an..34	O	IBAN of the user which appears predefined in the transfer window (only possible for DE)
<a href="#">BIC</a>	an..11	O	BIC of the user which appears predefined in the transfer window
<a href="#">AddrCountry Code</a>	a2	M	Two characters country code according to ISO 3166. Presently DE, AT, BE, NL, ES, CH, PL, IT permitted.
<a href="#">Language</a>	a2	O	Language: de – German, en – English, fr – French, nl – Dutch, pl – Polish
<a href="#">URLSuccess</a>	ans..256	M	Complete URL which calls up Paygate if payment has been successful. The URL may be called up only via port 443. This URL may not contain parameters: In order to exchange values between Paygate and shop, please use the parameter <a href="#">UserData</a> . <b>i Common notes:</b> <ul style="list-style-type: none"><li>We recommend to use parameter "response=encrypt" to get an encrypted response by Paygate</li><li>However, fraudster may just copy the encrypted DATA-element which are sent to URLFailure and send the DATA to URLSuccess. Therefore ensure to check the "code"-value which indicates success/failure of the action. Only a result of "code=00000000" should be considered successful.</li></ul>

URLFailure	ans..256	M	<p>Complete URL which calls up Paygate if payment has been unsuccessful. The URL may be called up only via port 443. This URL may not contain parameters: In order to exchange values between Paygate and shop, please use the parameter <a href="#">UserData</a>.</p> <p><b>i Common notes:</b></p> <ul style="list-style-type: none"> <li>• We recommend to use parameter "response=encrypt" to get an encrypted response by Paygate</li> <li>• However, fraudster may just copy the encrypted DATA-element which are sent to URLFailure and send the DATA to URLSuccess/URLNotify. Therefore ensure to check the "code"-value which indicates success/failure of the action. Only a result of "code=00000000" should be considered successful.</li> </ul>
Response	a7	O	Status response sent by Paygate to <a href="#">URLSuccess</a> and <a href="#">URLFailure</a> , should be encrypted. For this purpose, transmit <a href="#">Response=encrypt</a> parameter.
URLNotify	ans..256	M	<p>Complete URL which Paygate calls up in order to notify the shop about the payment result. The URL may be called up only via port 443. It may not contain parameters: Use the <a href="#">UserData</a> parameter instead.</p> <p><b>i Common notes:</b></p> <ul style="list-style-type: none"> <li>• Before follow-up actions (capture / credit / reversal) are carried out on an existing transaction, the first Notify must have been answered by the shop.</li> <li>• Fraudster may just copy the encrypted DATA-element which are sent to URLFailure and send the DATA to URLSuccess /URLNotify. Therefore ensure to check the "code"-value which indicates success/failure of the action. Only a result of "code=00000000" should be considered successful.</li> </ul>
UserData	ans..1024	O	If specified at request, Paygate forwards the parameter with the payment result to the shop.
ReqID	ans..32	O	<p>To avoid double payments or actions (e.g. by ETM), enter an alphanumeric value which identifies your transaction and may be assigned only once. If the transaction or action is submitted again with the same ReqID, Computop Paygate will not carry out the payment or new action, but will just return the status of the original transaction or action.</p> <p>Please note that the Computop Paygate must have a finalized transaction status for the first initial action (authentication /authorisation). This does not apply to 3-D Secure authentications that are terminated by a timeout. The 3-D Secure Timeout status does not count as a completed status in which the ReqID functionality on Paygate does not take effect. Submissions with identical ReqID for an open status will be processed regularly.</p> <p><b>Notice:</b> Please note that a ReqID is only valid for 12 month, then it gets deleted at the Paygate.</p>
Channel	a9	O	<p>Either value "ecommerce" or "mcommerce"</p> <ul style="list-style-type: none"> <li>• <b>ecommerce</b> = Browser (default)</li> <li>• <b>mcommerce</b> = App-Switch</li> </ul>
Plain	ans..50	O	<p>A single value to be set by the merchant to return some information unencrypted in response/notify, e.g. the MID.</p> <p>"Plain"-parameter is part of encrypted "Data" in Computop Paygate and therefore protected against manipulation.</p>
Custom	ans..1024	O	<p>"Custom"-parameter is added to the request data before encryption and is part of encrypted "Data" in Computop Paygate request. By this they are protected against manipulation by a consumer.</p> <p>The Custom-value is added to the Computop Paygate response in plain text and the " " is replaced by a "&amp;". By this you can put a single value into Custom-parameter and get multiple key-value-pairs back in response for your own purpose.</p>
TotalAmount	n..10	O	The total price of the purchase before tip and discount
Discount	n..10	O	Discount offered on the TotalAmount – is a positive integer and may be zero.
TransactionDate	ans20	O	UTC time of transaction in format "YYYY-MM-DDThh:mm:ssZ"

#### Parameters for payments with Bluecode website payment

The following table gives the result parameters which Computop Paygate transmits to **URLSuccess** or **URLFailure** and **URLNotify**. If you have specified the **Response=encrypt** parameter, the following parameters are sent **Blowfish encrypted** to your system:

**i** pls. be prepared to receive additional parameters at any time and do not check the order of parameters

**i** the key (e.g. mid, RefNr) should not be checked case-sensitive

Key	Format	CND	Description
mid	ans..30	M	MerchantID, assigned by Computop
PayID	an32	M	ID assigned by Paygate for the payment, e.g. for referencing in batch files as well as for capture or credit request.
XID	an32	M	ID for all single transactions (authorisation, capture, credit note) for one payment assigned by Paygate
TransID	ans..30	M	Unique reference number for your accounts - it is the unique reference with Bluecode, too. <i>It must be printed in consumers invoice/receipt.</i>
RefNr	ans..30	O	Unique reference number. <i>It must be printed in consumers invoice/receipt, if value present.</i>
TransactionID	ans..64	M	Unique transaction number returned by Bluecode (acquirer_tx_id): must be printed on the customer's invoice; customer can find the acquirer_tx_id in his Bluecode-App-history, too.
Invoice Text	ans..400	O	Optional text to the consumers invoice/receipt; it must be printed, if value is present.
Status	a..50	M	OK or AUTHORIZED ( <a href="#">URLSuccess</a> ) as well as FAILED ( <a href="#">URLFailure</a> )
Description	ans..1024	M	Further details in the event that payment is rejected. Please <b>do not</b> use the <b>Description</b> but the <b>Code</b> parameter for the transaction status analysis!
Code	an8	M	Error code according to Paygate Response Codes ( <a href="#">A4 Error codes</a> )
UserData	ans..1024	O	If specified at request, Paygate forwards the parameter with the payment result to the shop.
MAC	an64	M	Hash Message Authentication Code (HMAC) with SHA-256 algorithm. Details can be found here: <ul style="list-style-type: none"> <li><a href="#">HMAC Authentication (Request)</a></li> <li><a href="#">HMAC Authentication (Notify)</a></li> </ul>
Plain	ans..50	O	A single value to be set by the merchant to return some information unencrypted in response/notify, e.g. the MID. "Plain"-parameter is part of encrypted "Data" in Computop Paygate and therefore protected against manipulation.
Custom	ans..1024	O	"Custom"-parameter is added to the request data before encryption and is part of encrypted "Data" in Computop Paygate request. By this they are protected against manipulation by a consumer.  The Custom-value is added to the Computop Paygate response in plain text and the " " is replaced by a "&". By this you can put a single value into Custom-parameter and get multiple key-value-pairs back in response for your own purpose.
CodeErrorText	ans..30	O	Bluecode error Code
QRCodeUrl	ans..128	C	Only when calling <a href="#">BluecodeS2S.aspx</a> : if request processed successfully, QR Code URL will be returned, which can be converted to QR Code

Result parameters for URLNotify, URLSuccess and URLFailure in case of Bluecode website payment

## Reversal (if a payment process has not been completed successfully)

Reversals of a payment with Bluecode QR Code payment are possible via a Server-to-Server connection. The Paygate permits reversals that reference an authorisation previously made via Paygate. If you reference a payment in a cancellation, the whole payment is cancelled. A cancellation is not possible for successful completed payment processes. To refund money to the consumer use "credit".

To carry out a Reversal for Bluecode QR Code payment via a Server-to-Server connection please use the following URL:

<https://www.computop-paygate.com/reverse.aspx>


**Notice:** For security reasons, Computop Paygate rejects all payment requests with formatting errors. Therefore, please use the correct data type for each parameter.


The following table describes the [encrypted payment request parameters](#):

Key	Format	CND	Description
<a href="#">MerchantID</a>	ans..30	M	MerchantID, assigned by Computop. Additionally this parameter has to be passed in plain language too.
<a href="#">PayID</a>	an32	M	ID assigned by Paygate for the payment to be reversed
<a href="#">TransID</a>	ans..64	M	TransactionID provided by you which should be unique for each payment
RefNr	ans..30	O	Unique reference number for your accounts. The value is not sent to Bluecode with a reverse.
<a href="#">Amount</a>	n..10	M	Amount in the smallest currency unit (e.g. EUR Cent). Please contact the <a href="#">Computop Helpdesk</a> , if you want to capture amounts <100 (smallest currency unit).
<a href="#">Currency</a>	a3	M	Currency, three letters DIN / ISO 4217, e.g. EUR, USD, GBP. Please find an overview here: <a href="#">A1 Currency table</a>
<a href="#">MAC</a>	an64	M	Hash Message Authentication Code (HMAC) with SHA-256 algorithm. Details can be found here: <ul style="list-style-type: none"> <li><a href="#">HMAC Authentication (Request)</a></li> <li><a href="#">HMAC Authentication (Notify)</a></li> </ul>
<a href="#">UserData</a>	ans..256	O	If specified at request, Paygate forwards the parameter with the payment result to the shop.
<a href="#">ReqID</a>	ans..32	O	To avoid double payments or actions (e.g. by ETM), enter an alphanumeric value which identifies your transaction and may be assigned only once. If the transaction or action is submitted again with the same ReqID, Computop Paygate will not carry out the payment or new action, but will just return the status of the original transaction or action.  Please note that the Computop Paygate must have a finalized transaction status for the first initial action (authentication /authorisation). This does not apply to 3-D Secure authentications that are terminated by a timeout. The 3-D Secure Timeout status does not count as a completed status in which the ReqID functionality on Paygate does not take effect. Submissions with identical ReqID for an open status will be processed regularly.  <b>Notice:</b> Please note that a ReqID is only valid for 12 month, then it gets deleted at the Paygate.

#### Parameters for reversal of Bluecode QR Code payments

The following table describes the result parameters with which the Computop Paygate responds to your system

 pls. be prepared to receive additional parameters at any time and do not check the order of parameters

 the key (e.g. mid, RefNr) should not be checked case-sensitive

Key	Format	CND	Description
<a href="#">mid</a>	ans..30	M	MerchantID, assigned by Computop
<a href="#">PayID</a>	an32	M	ID assigned by Paygate for the payment, e.g. for referencing in batch files as well as for capture or credit request.
<a href="#">XID</a>	an32	M	ID for all single transactions (authorisation, capture, credit note) for one payment assigned by Paygate
<a href="#">TransID</a>	ans..64	M	TransactionID provided by you which should be unique for each payment
RefNr	ans..30	O	Unique reference number for your accounts. The value is not sent to Bluecode with a credit.
<a href="#">Status</a>	a..50	M	OK ( <a href="#">URLSuccess</a> ) or FAILED ( <a href="#">URLFailure</a> )
<a href="#">Description</a>	ans..1024	M	Further details in the event that payment is rejected. Please <b>do not</b> use the <b>Description</b> but the <a href="#">Code</a> parameter for the transaction status analysis!
<a href="#">Code</a>	an8	M	Error code according to Paygate Response Codes ( <a href="#">A4 Error codes</a> )
<a href="#">UserData</a>	ans..256	O	If specified at request, Paygate forwards the parameter with the payment result to the shop.
CodeExt	ans..30	O	Bluecode error Code

#### Response parameters for reversal of Bluecode QR Code payments

## Credit with reference

Credits for a payment with all Bluecode payment scenarios can be made via server-to-server communication. Paygate permits credits that reference on a capture previously made via Paygate. The amount of the credit is limited to the amount of the previous capture.

To carry out a credit with a reference transaction, please use the following URL:

<https://www.computop-paygate.com/credit.aspx>


**Notice:** For security reasons, Computop Paygate rejects all payment requests with formatting errors. Therefore, please use the correct data type for each parameter.


The following table describes the [encrypted payment request parameters](#):

Key	Format	CND	Description
<a href="#">MerchantID</a>	ans..30	M	MerchantID, assigned by Computop. Additionally this parameter has to be passed in plain language too.
<a href="#">PayID</a>	an32	M	ID assigned by Paygate for the payment to be credited
<a href="#">TransID</a>	ans..64	M	TransactionID provided by you which should be unique for each payment
<a href="#">RefNr</a>	ans..30	O	Unique reference number for your accounts. The value is not sent to Bluecode with a credit.
<a href="#">Amount</a>	n..10	M	Amount in the smallest currency unit (e.g. EUR Cent). Please contact the <a href="#">Computop Helpdesk</a> , if you want to capture amounts <100 (smallest currency unit).
<a href="#">Currency</a>	a3	M	Currency, three letters DIN / ISO 4217, e.g. EUR, USD, GBP. Please find an overview here: <a href="#">A1 Currency table</a>
<a href="#">Order Desc2</a>		O	Optional reason for refund / credit, e.g. "Warranty"
<a href="#">MAC</a>	an64	M	Hash Message Authentication Code (HMAC) with SHA-256 algorithm. Details can be found here: <ul style="list-style-type: none"> <li><a href="#">HMAC Authentication (Request)</a></li> <li><a href="#">HMAC Authentication (Notify)</a></li> </ul>
<a href="#">UserData</a>	ans..256	O	If specified at request, Paygate forwards the parameter with the payment result to the shop.
<a href="#">ReqID</a>	ans..32	O	To avoid double payments or actions (e.g. by ETM), enter an alphanumeric value which identifies your transaction and may be assigned only once. If the transaction or action is submitted again with the same ReqID, Computop Paygate will not carry out the payment or new action, but will just return the status of the original transaction or action.  Please note that the Computop Paygate must have a finalized transaction status for the first initial action (authentication /authorisation). This does not apply to 3-D Secure authentications that are terminated by a timeout. The 3-D Secure Timeout status does not count as a completed status in which the ReqID functionality on Paygate does not take effect. Submissions with identical ReqID for an open status will be processed regularly.  <b>Notice:</b> Please note that a ReqID is only valid for 12 month, then it gets deleted at the Paygate.
<a href="#">Reason</a>	ans..256	O	Reason of refund

Parameters for credits of Bluecode payments

The following table describes the result parameters with which the Computop Paygate responds to your system

 pls. be prepared to receive additional parameters at any time and do not check the order of parameters

 the key (e.g. mid, RefNr) should not be checked case-sensitive

Key	Format	CND	Description
<a href="#">mid</a>	ans..30	M	MerchantID, assigned by Computop
<a href="#">PayID</a>	an32	M	ID assigned by Paygate for the payment, e.g. for referencing in batch files as well as for capture or credit request.
<a href="#">XID</a>	an32	M	ID for all single transactions (authorisation, capture, credit note) for one payment assigned by Paygate
<a href="#">TransID</a>	ans..64	M	TransactionID provided by you which should be unique for each payment
<a href="#">RefNr</a>	ans..30	O	Unique reference number for your accounts. The value is not sent to Bluecode with a credit.
<a href="#">Transaction ID</a>	ans..64	M	Unique transaction number with Bluecode (acquirer_tx_id): <i>is printed on the customer's invoice</i>
<a href="#">Status</a>	a..50	M	OK ( <a href="#">URLSuccess</a> ) or FAILED ( <a href="#">URLFailure</a> )
<a href="#">Description</a>	ans..1024	M	Further details in the event that payment is rejected. Please <b>do not</b> use the <b>Description</b> but the <b>Code</b> parameter for the transaction status analysis!
<a href="#">Code</a>	an8	M	Error code according to Paygate Response Codes ( <a href="#">A4 Error codes</a> )
<a href="#">UserData</a>	ans..256	O	If specified at request, Paygate forwards the parameter with the payment result to the shop.
<a href="#">CodeExt</a>	ans..30	O	Bluecode error Code

Result parameters for credits of Bluecode payments

## Batch processing via the interface

Basic information about using Batch files and about their structure can be found in the Batch Manager manual. Within batch processing not all functions are available which are usually available for the online interface.

This section describes the parameters which must be transferred within the data set (**Record**) for executing an Bluecode payment and information can be found within the response file about the payment status

For Batch calls there must be considered batch versions, from which optional parameters depend. All version designations starting with „2.“ pertain calls for a group of enterprises. That means within a batch file for a particular MerchantID can be transferred transactions for other merchants with a separate Sub-MID

Following table gives an overview of all batch versions that are possible for a specific action and their specialities:

Action	Version	Description
Credit	1.0 / 2.0	Standard version without return of parameter Code
	1.x / 2.x	with RefNr (valid for all versions other than 1.0)

Description of the possible batch versions

The structure for a Bluecode credit within a Batch file to be submitted is as follows:

```
HEAD, <MerchantID>, <Date>, <Version>
Bluecode, Credit, <Amount>, <Currency>, <TransID>, ( <RefNr>, ) <PayID>
FOOT, <CountRecords>, <SumAmount>
```

Example for Master MID function:

```
HEAD, [Master]MerchantID, Date, 2.x
Type, Action, [Slave]MID, Amount, Currency, TransID, Data (depends on Action)
FOOT, CountRecords, SumAmount
```

The following table describes the individual fields and values used within the data set (record) in the batch file:

Key	Format	CND	Description
Type	a..11	M	HEAD for Header, FOOT for Footer, Bluecode for Bluecode
Action	a..20	M	The parameter Action defines the type of transaction: Credit
Amount	n..10	M	Amount in the smallest currency unit (e.g. EUR Cent). Please contact the <a href="#">Computop Helpdesk</a> , if you want to capture amounts <100 (smallest currency unit).
Currency	a3	M	Currency, three letters DIN / ISO 4217, e.g. EUR, USD, GBP. Please find an overview here: <a href="#">A1 Currency table</a>
TransID	ans..64	M	TransactionID provided by you which should be unique for each payment
RefNr	ans..30	O	Unique reference number for your accounts. The value is not sent to Bluecode with a credit.
PayID	an32	M	ID assigned by Paygate for this transaction

Description of fields within the record for Batch files

The record area within the response file for Batch transactions looks as follows:

```

HEAD, <MerchantID>, <Date>, <Version>
Bluecode, <Credit>, <Amount>, <Currency>, <TransID>, ( <RefNr>, ) <PayID>, <Status>, <Code>
FOOT, <CountRecords>, <SumAmount>

```

The following table describes the response parameters which the Batch Manager saves in the Record area for each transaction (standard parameters not explained here, such as <TransID> or <RefNR> and request parameters are returned unchanged and correspond to the call as specified before):

Key	Format	CND	Description
Action	a..20	M	The parameter Action defines the type of transaction: Credit
PayID	an32	M	ID assigned by Paygate for this transaction
Status	a..50	M	OK ( <a href="#">URLSuccess</a> ) or FAILED ( <a href="#">URLFailure</a> )
Code	an8	M	Error code according to Paygate Response Codes ( <a href="#">A4 Error codes</a> )

Description of result parameters within the record for Batch files

## Test data

Bluecode provides a special Sandbox-App to provide test functionality. This Sandbox-App is not available in the official Appstores, but is available here:

Smartphone	Link and remarks	QR-Code for easy download of Bluecode Sandbox-App
iOS	<a href="https://install.appcenter.ms/orgs/bluecode-organization/apps/at.secure-shopping.bluecode.sandbox-ios/distribution_groups/public">https://install.appcenter.ms/orgs/bluecode-organization/apps/at.secure-shopping.bluecode.sandbox-ios/distribution_groups/public</a>  Note on iOS: When installing the sandbox app for the first time, the company app "bluesource" must be trusted once on iOS devices under "Settings> General> Profiles & device management". Only then the sandbox app can be used on iOS.	blocked URL
Android	<a href="https://install.appcenter.ms/orgs/bluecode-organization/apps/com.spt.bluecode.sandbox-android/distribution_groups/public">https://install.appcenter.ms/orgs/bluecode-organization/apps/com.spt.bluecode.sandbox-android/distribution_groups/public</a>	blocked URL (click to enlarge)

### Please note:

After installation of Bluecode Sandbox-App the Bluecode has to be connected to a bank account:

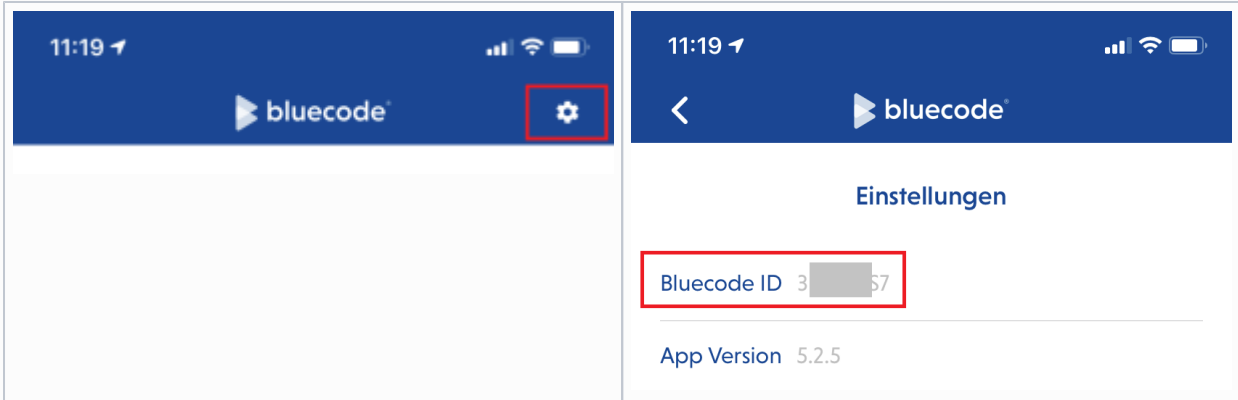
- After installation of Bluecode Sandbox-App you have to setup a PIN for the App.
- Then click on "Connect bank account" and enter "test" in the bank search.
- The entry "Activate a test user" is then displayed. A test account can be added by clicking on it.
- To do this, select the first entry "Hypo Tirol".
- A blue code for payment is then displayed.
- To scan a QR code with your smartphone, tap the QR symbol in the top left of the app to activate the camera.
- The amount is then displayed on the smartphone for confirmation. You confirm this by "swiping".

In the Bluecode Sandbox app, no "real" payments are made, they are only simulated!



The Bluecode Sandbox App also has some transaction limits (per hour / per day). In case you need to disable the transaction limits please send an email together with your Bluecode Sandbox App "Bluecode ID" to [devsupport@bluecode.com](mailto:devsupport@bluecode.com).

You will find the Bluecode ID here:



## Important notes when switching to live payments

Computop itself has a certified Bluecode implementation. However, when switching from test to production mode a merchant has to ensure:

- Use Computop URL "Bluecode.aspx" to initiate a Bluecode payment with redirect to Bluecode page containing the QR code
- Use Computop URL "BluecodeS2S.aspx" to retrieve a Bluecode URL which has to be transformed into a QR code by the merchant system
- Values for request parameter "RefNr" are unique per payment process – duplicate values will be rejected
- Values from response parameter "TransactionID" must be printed on customer's invoice / receipt
- Values from response parameter "TransID" must be printed on customer's invoice / receipt if not empty