The HTTPS Interface

The connection of ContentCard to enterprise resource planning and point of sales systems

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Introduction

The option to integrate ContentCard into existing enterprise resource planning and point of sales systems can be easily implemented. For this purpose, ContentCard offers standardized interfaces, which will be described in this document.

Import of ContentCard article data

Article data on the ContentCard products can be imported from ContentCard into your own enterprise resource planning / point of sales system via the commonly used BMEcat interface.

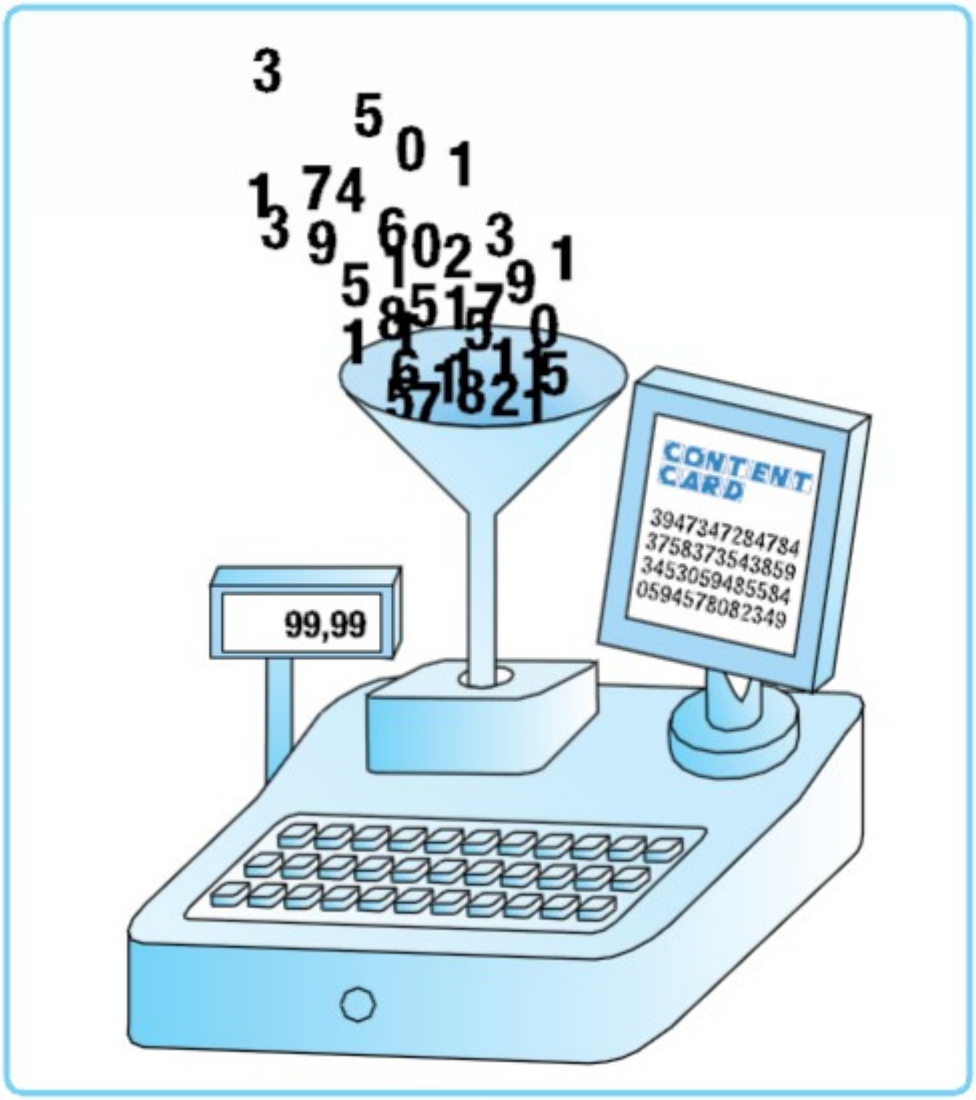

Fig. 1: Import of ContentCard-article data into enterprise resource planning / point of sales systems via BMEcat Interface

Automatic activation at the cash point

When scanning the EAN code of the ContentCard at the cash point, the point of sales system needs to recognize the additional requirement for the serial number to be entered by the cashier.

In a second process parallel to the ongoing cashing process, the point of sales system can then activate this individual ContentCard via an HTTPS interface provided especially for this purpose.

Within a fraction of a second, the interface returns a success message or an error message to the cashier.

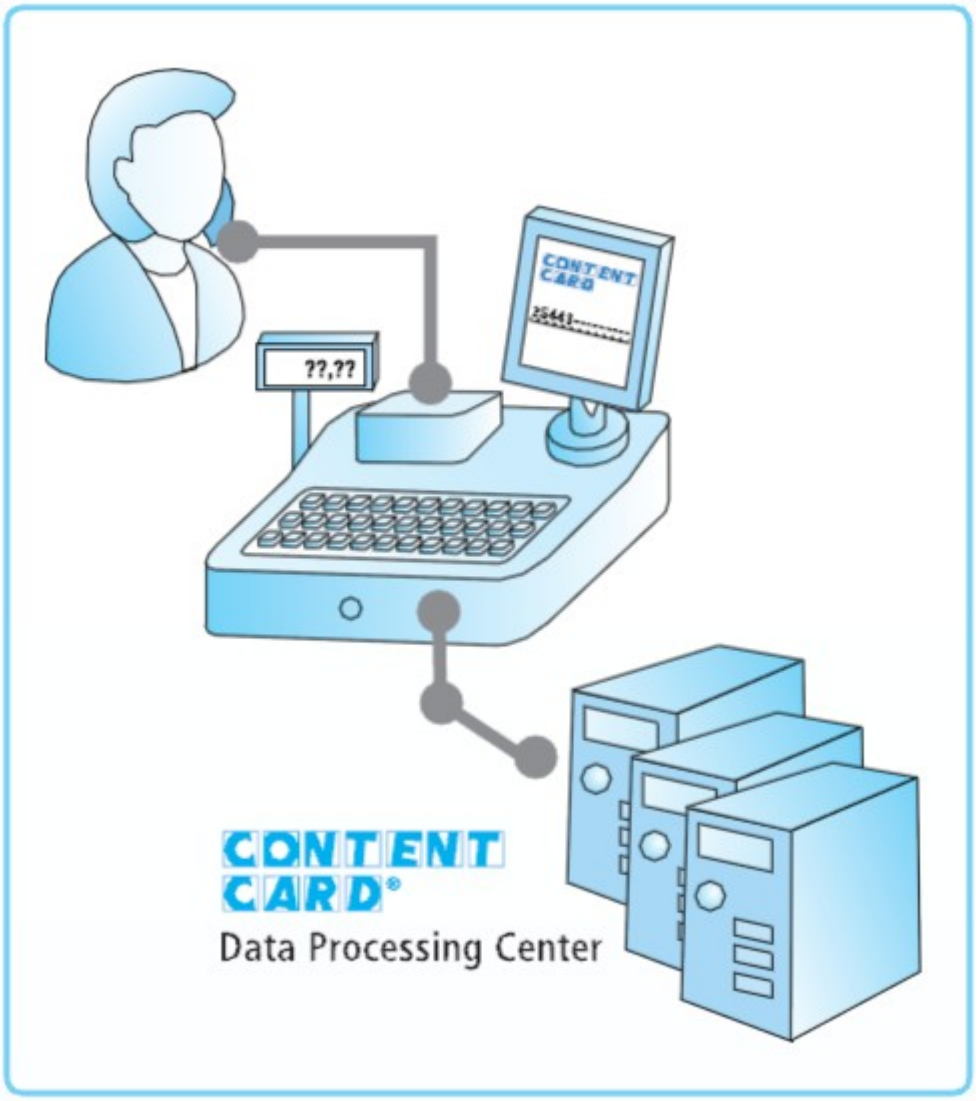

Fig. 2: Activation of ContentCard via a secure HTTPS interface

Intended use

This document describes the use of the HTTPS interface of ContentCard, which enables you to implement PinPrinting, ContentCard Activation and Direct Top-Up service.

Requirements

The description of this interface requires some knowledge of the HTTPS protocol. In addition to this, the CGI protocol and the definition of URLs are assumed to be known.

System structure

The following diagram represents the simple structure of ContentCard access:

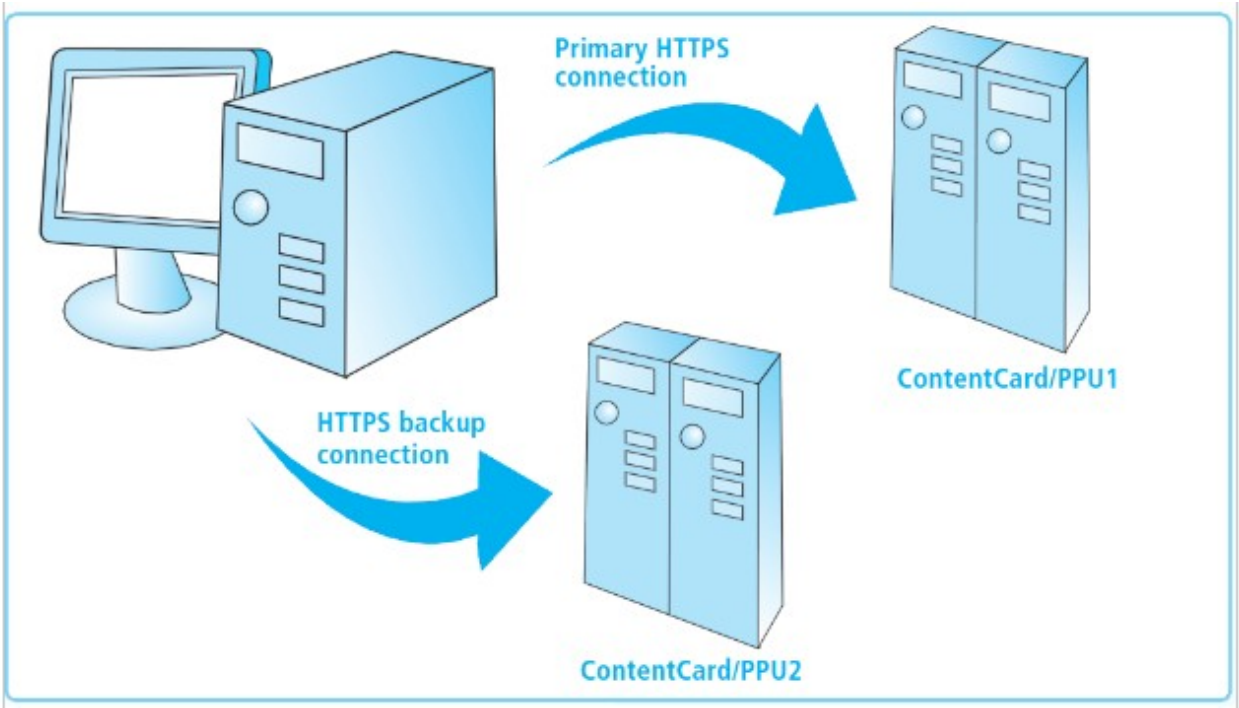

Fig. 3: System structure

The Client (in reference to ContentCard) sends a TCP/IP-connection-based ContentCard/HTTP GET-Request to the PPU via an SSL-secured connection.

The request contains two fields where user ID and password are entered for authentication. The respective user must be explicitly and exclusively authorized for the ContentCard-HTTPS service by the ContentCard Backoffice. If access is granted, the PPU processes the request and creates a response message in the XML format.

In order to guarantee system stability, the client architecture must provide for the use of 2 PPUs!

For implementing an interface feature, normally two requests needs to be made. The first one being the booking request (TAN request). To this request, there is a unique transaction code (TAN) allocated, which has to be entered in the TAN field of the second request, which is the execution request.

The booking is only valid for a period of 15 minutes or 120 minutes concerning the ContentCard activation; within this time frame the execution request of the client must reach the PPU which received the previous booking request. Otherwise a new booking request is necessary. In case of a ContentCard activation a renew booking request overwrites the already sent booking request on the same PPU. Only the last committed booking can be completed by an activation request. It is not possible to do double activations via different PPUs.

When PinPrinting and the Direct Top-Up service the sequence of the activation requests is irrelevant for multiple booking requests. Committing two separate request provides the advantage that with the first request for example a PIN can be reserved directly (including credit limit check) while providing time afterwards for the customer to pay. In case no transaction is done for whatever reason, the booking request can simply be ignored and no cancellation needs to be done. Already with the booking request a unique transaction number (TAN) is generated, which is important for error handling. If on the contrary a single request is used and an error occurs between the PPU and the customer a cancellation is needed as then there is an unclarity about the status of the transaction.

PPU access on the live-system is only granted to a registered IP address. Granting access to explicit addresses (no address areas or subnets) is granted only by the ContentCard Backoffice.

Version history of the HTTPS interface

The version field serves for guaranteeing downward compatibility without the necessity of the customer changing his system.

If the version information is not sent, the XML messages are output on the basis of version 1.0. If the information on the version is provided, the output of the XML is based on the respective version.

Version	Date	Description
1.0	2007-01-16	– First version of the Interface
1.1	2009-02-05	– Parameter smsdelivery for PinPrinting introduced – ContentCard cancellation is now an own transaction – ContentCard status and redemption request added
1.2	2009-09-14	– Added attribute long for the XML-elements timestamp and validthru corresponding to the UNIX timestamp since 01.01.1970 – Extended ContentCard cancellation with XML-element timestamp – Added parameter smsdelivery for T-Mobile direct top-up service – Added optional parameter terminalid and customerno for ContentCard cancellation – Changed the format of XML-element valid-thru to the format xsd:dateTime
1.2	2010-02-05	– Added optional parameters barcode and barcodetype for booking request
1.2	2010-04-29	– Removed parameter smsdelivery for Direct Top-Up service
1.3	2010-06-02	– parameter ean13 is now mandatory for ContentCard booking requests – removed parameter barcode and barcodetype for booking request

Table 1: Version history of the HTTPS interface

Generation of a request

A request is implemented as HTTP GET Request to access a URL. The parameters are transmitted via the CGI.

There are different types of requests: the booking, execution, cancellation, diagnosis, status and redemption request. Which requests are allowed with what service is specified in the next table.

	Booking Request	Execution Request	Cancelation Request	Diagnosis Request	Status Request	Redemption Request
ContentCard Activation	✓	✓	✓		✓	✓
PinPrinting	✓	✓				
T-Mobile Direktaufladung	✓	✓	✓	✓		

The execution request must always be sent to the same PPU that received the booking request. The diagnosis request for Direct Top-Up service is only used for an internal check whether the service is available.

Structure of Content-Card Activation Requests

Booking request / TAN request

```
URL:  https://ppu99.contentcard.com/contentcard/contentcarddemo.php?
user=USER&pass=PASSWORD&cspid=CSPID&action=1&serial=SERIAL&serviceid=SERVICEI
D&version=VERSION
```

The explanation of the parameters is shown in the following table (mandatory parameters are shown in **bold** and *italic*).

Parameter	Description	Since Version
user	Username – the BMC number allocated by the ContentCard Backoffice.	1.0
pass	Password – the password of the user. The minimum length of the password is 6 characters. The password has to be transferred URL encoded.	1.0
cspid	The CSPID represents the customer using the ContentCard system. It is used for account settlement and it is allocated by ContentCard.	1.0

action	***1***	1.0
serviceid	***3***	1.0
serial	Serial number of the desired content.	1.0
ean13	It is compared to the EAN13 of ContentCard. Only in case of a match the activation can happen. It is also used to identify the correct article in third party codes.	1.3
version (optional)	Optional field – if no specification is made, version "1.0" is selected. If a higher version number is transmitted, the structure of the XML response is based on the respective interface version.	1.0
posrefnum (optional)	Optional field – reference number - if specified, it is saved in the system within the transaction data.	1.0

A List of test data can be found in chapter "Testdata for ContentCard Activation".

Large Account Customers

In order to integrate large accounts easily it is possible to access the ContentCard system with only one BMC number. The credit limit check is done by the customer. This paragraph is not relevant for normal ContentCard transactions.

Compared to a normal ContentCard transaction additional parameters are needed in order to match the transactions with each single dealer. The extended URL request has the following format:

```
URL: https://ppu99.contentcard.com/contentcard/contentcarddemo.php?
user=USER&pass=PASSWORD&cspid=CSPID&action=1&serial=SERIAL&serviceid=3&versio
n=VERSION&terminalid=TERMINALID&customerno=CUSTOMERNO
```

The explanation of the parameters is shown in the following table (mandatory parameters are shown in **bold** and *italic*).

Parameter	Description	Since Version
terminalid	Optional Parameter - terminalid – If used the terminal-ID is saved in the system in the following format: YY YX XX XX	1.2

	YY Y Network Operator ID X..X Terminal-ID with the Network Operator	
customerno	Optional Parameter – customerno – If used the customer number is saved in the system together with the respective transaction data. Format: max. 10 digits, alphanumeric	1.2

A List of test data can be found in chapter “Testdata for ContentCard Activation”.

Response to the booking request

The message generated by the server uses the XML format with the structure shown:

Response:

```
<contentcard-result>
     <contentcard-reservation>
           <ean>
                 <eantype>ean type</eantype>
                 <eancode>ean code</eancode>
           </ean>
     <amount>amount</amount>
     <currency>currency</currency>
     <timestamp long="unix-timestamp">timestamp</timestamp>
     <description>description of content</description>
     <tan>transaction code</tan>
     </contentcard-reservation>
</contentcard-result>
```

If an error occurs during booking (e.g. unknown product code, wrong password etc.), an error message is returned. If the transaction code has already been allocated at this point, it is included in the message.

Error Response:

```
<contentcard-result>
     <error>
```

```
            <code>error code</code>

            <description>description text</description>

            <timestamp long="unix-timestamp">timestamp</timestamp>

            <tan>transaction code</tan> (optional)

      </error>

</contentcard-result>
```

Execution

With this request, the previously booked transaction is performed. The request must be sent to the same PPU where the TAN was reserved. The request can be repeated.

```
URL: https://ppu99.contentcard.com/contentcard/contentcarddemo.php?
user=USER&pass=PASSWORD&cspid=CSPID&action=2&serviceid=3&version=VERSION&tan=
TAN
```

The explanation of the parameter is shown in the following table (mandatory parameters are shown in **bold** and *italic*).

Parameter	Description	Since Version
user	Username – the BMC number allocated by the ContentCard Backoffice.	1.0
pass	Password – the password of the user. The minimum length of the password is 6 characters. The password has to be transferred URL encoded.	1.0
cspid	The CSPID represents the customer using the ContentCard system. It is used for account settlement and it is allocated by ContentCard.	1.0
tan	The transaction code uniquely defines the loading process within the ContentCard System. It is returned by the system in the response to a booking request. After a booking request has been made, an execution request can be accepted within a period of 120 minutes. After this period, the validity of the booking request expires. Execution requests received after this period will cause an error message.	1.0
action	***2***	1.0
serviceid	***3***	1.0

version (optional)	Optional field – if no specification is made, version "1.0" is selected. If a higher version number is transmitted, the structure of the XML response is based on the respective interface version.	1.0

A List of test data can be found in chapter "Testdata for ContentCard Activation".

Response to the execution request

The message generated by the server uses the XML format with the structure:

Response:

```
<contentcard-result>

      <contentcard-activation>

            <returncode>return code</returncode>

            <tan>transaction code</tan>

            <pin>PIN</pin>

      </contentcard-activation>

</contentcard-result>
```

If an error occurs for the execution request (e.g. serial number has already been activated), an error message is returned.

Error Response:

```
<contentcard-result>

      <error>

            <code>error code</code>

            <description>description text</description>

            <timestamp long="unix-timestamp">timestamp</timestamp>

            <tan>transaction code</tan> (optional)

      </error>

</contentcard-result>
```

Cancellation request

```
URL: https://ppu99.contentcard.com/contentcard/contentcarddemo.php?
user=USER&pass=PASSWORD&cspid=CSPID&action=3&serviceid=3&serial=SERIAL&versio
n=VERSION
```

The explanation of the parameter is shown in the following table (mandatory parameters are shown in **bold** and *italic*).

Parameter	Description	Since Version
user	Username – the BMC number allocated by the ContentCard Backoffice.	1.0
pass	Password – the password of the user. The minimum length of the password is 6 characters. The password has to be transferred URL encoded.	1.0
cspid	The CSPID represents the customer using the ContentCard system. It is used for account settlement and it is allocated by ContentCard.	1.0
action	***3***	1.0
serviceid	***3***	1.0
version (optional)	Optional field – if no specification is made, version "1.0" is selected. If a higher version number is transmitted, the structure of the XML response is based on the respective interface version.	1.0

A List of test data can be found in chapter "Testdata for ContentCard Activation".

The cancellation transaction can be found in the transaction tracking by entering the date of the transaction in the activation box and by entering the transaction number in the field reference number.

Large Account Customers

In order to access the interface for cancellation via Large Account Customers further parameters are needed compared to the normal request. The extended URL request has the following format:

```
URL: https://ppu99.contentcard.com/contentcard/contentcarddemo.php?
user=USER&pass=PASSWORD&cspid=CSPID&action=3&serviceid=3&serial=SERIAL&versio
n=VERSION&terminalid=TERMINALID&customerno=CUSTOMERNO
```

The explanation of the parameter is shown in the following table (mandatory parameters are shown in **bold** and *italic*).

Parameter	Description	Since Version
terminalid	Optional Parameter - terminalid – If used the terminal-ID is saved in the system in the following	1.2

	format: YY YX XX XX YY Y Network Operator ID X..X Terminal-ID with the Network Operator	
customerno	Optional Parameter – customerno – If used the customer number is saved in the system together with the respective transaction data. Format: max. 10 digits, alphanumeric	1.2

A List of test data can be found in chapter “Testdata for ContentCard Activation”.

Response to the cancellation

The response message generated by the server uses the XML format with the following structure:

Response:

```
<contentcard-result>
      <contentcard-cancellation>
      <returncode>return code</returncode>
      <tan>transaction code</tan>
      <timestamp long="unix-timestamp">timestamp</timestamp>
      <cancel-tan>transaction code of cancel</cancel-tan>
      </contentcard-cancellation>
</contentcard-result>
```

In case of an error occurring during the cancellation (i.e. transaction needed for cancellation cannot be found) an error code is reported back:

Error-Response:

```
<contentcard-result>
      <error>
            <code>error code</code>
            <description>description text</description>
```

```
            <timestamp long="unix-timestamp">timestamp</timestamp>

            <tan>transaction code</tan> (optional)

      </error>

</contentcard-result>
```

Structure of Content-Card Redemption Requests

Status Request

```
URL: https://ppu99.contentcard.com/contentcard/consume.php?
user=USER&pass=PASSWORD&cspid=CSPID&action=6&serviceid=3&code=CONTENTCARD-
CODE&version=VERSION
```

The explanation of the parameter is shown in the following table (mandatory parameters are shown in bold and italic).

Parameter	Description	Since Version
user	Username – here, the BMC number allocated by the ContentCard Backoffice is entered.	1.0
pass	Password – the password of the user. The minimum length of the password is 6 characters. The password has to be transferred URL-encoded.	1.0
cspid	The CSPID represents the customer using the ContentCard system. It is used for account settlement and it is allocated by ContentCard.	1.0
action	***6***	1.0
serviceid	***3***	1.0
code	The secret ContentCard Code. The Code is printed on the voucher and will be returned by the booking request (in case such a right has been granted)	1.0
version	For the status request the version number **1.2** has to be sent.	1.0

A List of test data can be found in chapter “Testdata for ContentCard Activation”.

Response to Status Request

The response message generated by the server is created as XML with the following structure:

Response:

```
<contentcard-result>

     <contentcard-data>

     <returncode>0</returncode>
```

```
      <serial>0100015002225</serial>

      <ean>

            <eantype>EAN13</eantype>

            <eancode>4250139800057</eancode>

      </ean>

      <currency>EUR</currency>

      <productid>3868</productid>

      <description>Nagios Testprodukt</description>

      <amount>0</amount>

      <status code="4269" cancelable="false">DELIVERED</status>

      <activation-time long="1233044980">2009-01-27T08:29:40.000Z

      </activation-time> (optional)

      <delivery-time long="1233128354">2009-01-28T07:39:14.000Z

      </delivery-time> (optional)

      </contentcard-data>

</contentcard-result>
```

The field status is able to contain the following values:

Value	**Code**	**Description**
UNUSED	0	ContentCard can be activated
ACTIVATED	4275	ContentCard is activated and can be cancelled
DELIVERED	4269	ContentCard is activated, redeemed & not cannot be cancelled anymore
LOCKED	4263	ContentCard cannot be activated
CANCELED	4288	ContentCard canceled and not active anymore

FAILED	various Error-Codes	-

The status tag attribute cancelable shows if a cancellation is at all possible. In case of an error with the cancellation (i.e. entering the wrong Code) the following error message is shown:

Error-Response:

```
<contentcard-result>

      <error>

            <code>errorcode</code>

            <description>description text</description>

            <timestamp long="unix-timestamp">timestamp</timestamp>

            <tan>transaction code</tan> (optional)

      </error>

</contentcard-result>
```

Redemption Request

```
URL: https://ppu99.contentcard.com/contentcard/consume.php?
user=USER&pass=PASSWORD&cspid=CSPID&action=7&serviceid=3&code=CONTENTCARD-
CODE&version=VERSION
```

The explanation of the parameter is shown in the following table (mandatory parameters are shown in **bold** and *italic*).

Parameter	Description	Since Version
user	Username – here, the BMC number allocated by the ContentCard Backoffice is entered.	1.0
pass	Password – the password of the user. The minimum length of the password is 6 characters. The password has to be transferred URL-encoded.	1.0
cspid	The CSPID represents the customer using the ContentCard system. It is used for account settlement and it is allocated by ContentCard.	1.0
action	7	1.0
serviceid	3	1.0
code	The secret ContentCard Code. The Code is printed on the voucher and will be returned by the booking request (in case such a right has been granted)	1.0
version	For the status request the version number **1.2** has to be sent.	1.0
msisdn (optional)	The Member-ID (MSISDN) has to be stated in the international format: +<country code><regional code><number>. The character '+' has to be stated in form of '%2B' as the plus-sign has the meaning of a space character in CGI. For example %2B4916094500064 is a valid number on a test system.	1.1
imei (optional)	Optional Field – maximum length is 20 characters. IMEI has to be entered without delimiter.	1.1
userdata (optional)	Optional Field – maximum length is 20 alphanumeric characters. If entered this information is safed with the transaction data in the system.	1.1

A List of test data can be found in chapter “Testdata for ContentCard Activation”.

Response to a redemption request

The response message generated by the server is created as XML with the following structure:

Response:

```
<contentcard-result>
      <content-delivery>
            <serial>5646039279</serial>
            <timestamp long="1233128354">2009-01-28T07:39:14.829Z</timestamp>
            <tan>497F1EDA63AC</tan>
            <valid-thru long="1538265600">2018-09-30T00:00:00Z
            </valid-thru> (optional)
            <ppu>ppu99</ppu> (optional)
            <pin>56 4604 8606 0828</pin> (optional)
            <description>Nagios Testprodukt</description> (optional)
      </content-delivery>
</contentcard-result>
```

When repeating a request the attribute repeated is sent additionally with the XML-element content-delivery. The Content of the XML-element timestamp is always equal to the point in time of activation with every request. In case of an error with the cancellation (i.e. entering the wrong code) the following error message is returned.

Error-Response:

```
<contentcard-result>
      <error>
            <code>errorcode</code>
            <description>description text</description>
            <timestamp long="unix-timestamp">timestamp</timestamp>
            <tan>transaction code</tan> (optional)
      </error>
</contentcard-result>
```

Structure PinPrinting Requests

Booking Request / TAN-Request

```
URL: https://ppu99.contentcard.com/contentcard/contentcarddemo.php?
user=USER&pass=PASSWORD&cspid=CSPID&action=1&serviceid=1&prodid=PRODUCTID&cur
r=CURRENCY&amount=AMOUNT&version=VERSION
```

The explanation of the parameter is shown in the following table (mandatory parameters are shown in **bold** and *italic*).

Parameter	Description	Since Version
user	Username – here, the BMC number allocated by the ContentCard Backoffice is entered.	1.0
pass	Password – the password of the user. The minimum length of the password is 6 characters. The password has to be transferred URL-encoded.	1.0
cspid	The CSPID represents the customer using the ContentCard system. It is used for account settlement and it is allocated by ContentCard.	1.0
prodid	Product-ID – a numeric value. The value for a certain product is allocated by ContentCard.	1.0
curr	Product Currency	1.0
amount	The recharge value – the value is stated in the smalles currency unit: i.e. 1500 for 15 EUR.	1.0
action	***1***	1.0
serviceid	***1***	1.0
msisdn (optional)	The Member-ID (MSISDN) has to be stated in the international format: +<country code><regional code><number>. The character '+' has to be stated in form of '%2B' as the plus-sign has the meaning of a space character in CGI. For example %2B4916094500064 is a valid number on a test system.	1.1
smsdelivery (optional)	Optional Field – The PIN delivery is done via a text message. If the parameter shows `1`the parameter msisdn has to be entered as well. With the execution	1.1

	request no PIN is delivered. Standard: '0'.	
version (optional)	Optional field – if no specification is made, version "1.0" is selected. If a higher version number is transmitted, the structure of the XML response is based on the respective interface version.	1.0
posrefnum (optional)	Optional field – reference number; if specified, it is saved in the system within the transaction data. Allowed for: PinPrinting, ContentCard activation	1.0

A List of test data can be found in chapter "Testdata for ContentCard PinPrinting".

Response to Booking Request

The response message generated by the server is created as XML with the following structure:

Response:

```
<contentcard-result>
     <content-reservation>
          <tan>transaction code</tan>
          <timestamp long="unix-timestamp">timestamp</timestamp>
     </content-reservation>
</contentcard-result>
```

In case of an error with the reservation (i.e. unknown product code, wrong password, etc.) an error message is returned. In case the transaction ID is already known at this time it is also returned.

Error-Response:

<contentcard-result>

```
     <error>
          <code>error code</code>
          <description>description text</description>
          <timestamp long="unix-timestamp">timestamp</timestamp>
          <tan>transaction code</tan> (optional)
     </error>
```

```
</contentcard-result>
```

Execution Request

With this request the previously reserved transaction is executed. The request has to be sent to the same PPU wich the booking request was sent to. This requst can be repeated.

```
URL: https://ppu99.contentcard.com/contentcard/contentcarddemo.php?
user=USER&pass=PASSWORD&cspid=CSPID&action=2&serviceid=1&version=VERSION&tan=
TAN
```

The explanation of the parameter is shown in the following table (mandatory parameters are shown in **bold** and *italic*).

Parameter	Description	Since Version
user	Username – here, the BMC number allocated by the ContentCard Backoffice is entered.	1.0
pass	Password – the password of the user. The minimum length of the password is 6 characters. The password has to be transferred URL-encoded.	1.0
cspid	The CSPID represents the customer using the ContentCard system. It is used for account settlement and it is allocated by ContentCard.	1.0
tan	The transaction code uniquely defines the loading process within the ContentCard System. It is returned by the system in the response to a booking request. After a booking request has been made, an execution request can be accepted within a period of 15 minutes. After this period, the validity of the booking request expires. Execution requests received after this period will cause an error message.	1.0
action	***2***	1.0
serviceid	***1***	1.0
version (optional)	Optional field – if no specification is made, version "1.0" is selected. If a higher version number is transmitted, the structure of the XML response is based on the respective interface version.	1.0

A List of test data can be found in chapter "Testdata for ContentCard PinPrinting".

Response to the Execution Request

The response message generated by the server is created as XML with the following structure:

Response (delivery in XML / smsdelivery = 0):

```
<contentcard-result>
      <content-delivery>
            <serial>serial of the PIN</serial>
            <timestamp long="unix-timestamp">timestamp</timestamp>
            <tan>transaction code</tan>
            <valid-thru long="unix-timestamp">PIN is valid thru</valid-thru>
            <deb-limit-warning>current limit
            </deb-limit-warning> (optional)
            <description>description of the content</description> (optional)
            <ppu>ppu id</ppu>
            <pin>PIN code</pin>
      </content-delivery>
</contentcard-result>
```

Response (delivery via SMS / smsdelivery = 1):

```
<contentcard-result>
      <content-delivery>
            <serial>serial of the PIN</serial>
            <timestamp long="unix-timestamp">timestamp</timestamp>
            <tan>transaction code</tan>
            <valid-thru long="unix-timestamp">PIN is valid thru</valid-thru>
            <deb-limit-warning>current limit</deb-limit-warning> (optional)
            <description>description of the content
            </description> (optional)
            <ppu>ppu id</ppu>
      </content-delivery>
```

```
</contentcard-result>
```

In case of an error occuring during the execution request (i.e. reservation timeout) an error message is returned:

Error-Response:

```
<contentcard-result>

      <error>

            <code>error code</code>

            <description>description text</description>

            <timestamp long="unix-timestamp">timestamp</timestamp>

            <tan>transaction code</tan> (optional)

      </error>

</contentcard-result>
```

Structure for Direct Top-Up Requests

Booking Request / TAN-Request

```
URL: https://ppu99.contentcard.com/contentcard/contentcarddemo.php?
user=USER&pass=PASSWORD&cspid=CSPID&action=1&serviceid=2&prodid=PRODUCTID&cur
r=CURRENCY&amount=AMOUNT&version=VERSION&msisdn=MSISDN
```

The explanation of the parameter is shown in the following table (mandatory parameters are shown in **bold** and ***italic***).

Parameter	Description	Since Version
user	Username – here, the BMC number allocated by the ContentCard Backoffice is entered.	1.0
pass	Password – the password of the user. The minimum length of the password is 6 characters. The password has to be transferred URL-encoded.	1.0
cspid	The CSPID represents the customer using the ContentCard system. It is used for account settlement and it is allocated by ContentCard.	1.0
prodid	Product-ID – a numeric value. The value for a certain product is allocated by ContentCard.	1.0
curr	Product Currency (for Direct Top-Up always EUR)	1.0

amount	The recharge value – the value is stated in the smalles currency unit: i.e. 1500 for 15 EUR.	1.0
msisdn	The Member-ID (MSISDN) has to be stated in the international format: +<country code><regional code><number>. The character '+' has to be stated in form of '%2B' as the plus-sign has the meaning of a space character in CGI. For example %2B4916094500064 is a valid number on a test system.	1.0
action	***1***	1.0
serviceid	***2***	1.0
version (optional)	Optional field – if no specification is made, version "1.0" is selected. If a higher version number is transmitted, the structure of the XML response is based on the respective interface version.	1.0

A List of test data can be found in chapter "Testdata for Direct Top-Up".

Response to a Booking Request

The response message generated by the server is created as XML with the following structure:

Response:

```
<contentcard-result>

      <xtrc-reservation>

            <tan>transaction code</tan>

            <timestamp long="unix-timestamp">timestamp</timestamp>

            <terminalid>terminal id</terminalid>

            <tracenumber>trace number</tracenumber>

      </xtrc-reservation>

</contentcard-result>
```

In case an error occurs during the reservation (i.e. unknown product code, wrong password, etc.) an error message is returned. In case the transaction number is already know at this point it is returned as well.

Error-Response:

```
<contentcard-result>

     <xtrc-error>

           <code>error code</code>

           <description>description text</description>

           <timestamp long="unix-timestamp">timestamp</timestamp>

           <tan>transaction code</tan> (optional)

           <xtrc-response-code>xtrc response code

           </xtrc-response-code> (optional)

           <must-cancel>1</must-cancel> (optional)

     </xtrc-error>

</contentcard-result>
```

Execution Request

With this request the already reserved transaction is executed. The request has to be sent to the same PPU as the booking request. The request can be repeated.

```
URL: https://ppu99.contentcard.com/contentcard/contentcarddemo.php?
user=USER&pass=PASSWORD&cspid=CSPID&action=2&serviceid=2&version=VERSION&tan=
TAN
```

The explanation of the parameter is shown in the following table (mandatory parameters are shown in bold and italic).

Parameter	Description	Since Version
user	Username – here, the BMC number allocated by the ContentCard Backoffice is entered.	1.0
pass	Password – the password of the user. The minimum length of the password is 6 characters. The password has to be transferred URL-encoded.	1.0
cspid	The CSPID represents the customer using the ContentCard	1.0

	system. It is used for account settlement and it is allocated by ContentCard.	
tan	The transaction code uniquely defines the loading process within the ContentCard System. It is returned by the system in the response to a booking request. After a booking request has been made, an execution request can be accepted within a period of 15 minutes. After this period, the validity of the booking request expires. Execution requests received after this period will cause an error message.	1.0
action	***2***	1.0
serviceid	***2***	1.0
version (optional)	Optional field – if no specification is made, version "**1.0**" is selected. If a higher version number is transmitted, the structure of the XML response is based on the respective interface version.	1.0

A List of test data can be found in chapter "Testdata for Direct Top-Up".

Response to the Execution Request

The response message generated by the server is created as XML with the following structure:

Response:

```
<contentcard-result>

     <xtrc-result>

           <timestamp long="unix-timestamp">timestamp</timestamp>

           <tan>transaction code</tan>

           <xtrc-response-code>xtrc response code

           </xtrc-response-code>

     </xtrc-result>

</contentcard-result>
```

In case an error occurs during the execution request (i.e. telephone number unknown) an error message is returned:

Error-Response:

```
<contentcard-result>

     <xtrc-error>

           <code>error code</code>

           <description>description text</description>

           <timestamp long="unix-timestamp">timestamp</timestamp>

           <tan>transaction code</tan> (optional)

           <xtrc-response-code>xtrc response code

           </xtrc-response-code> (optional)

           <must-cancel>1</must-cancel> (optional)

     </xtrc-error>

</contentcard-result>
```

In special cases, i.e. the interruption of the connection while reading the message from the Direct Top-Up service provider, the CGI script creates an XML-element `must-cancel`. In the case the client who has done the request has to send a cancellation message to the PPU (refer to 5.4.5)

This cancellation possibly creates another error (for example if the network to the Direct Top-Up service provider is down). Therefore the cancellation request is repeated up to two times. The cancellations have to be commited within 15 minutes after the recharge request.

The client then has to commit a cancellation request even if the PPU is not answering (timeout, interruption of the connection).

Cancellation request

```
URL: https://ppu99.contentcard.com/contentcard/contentcarddemo.php?
user=USER&pass=PASSWORD&cspid=CSPID&action=3&serviceid=2&version=VERSION&tan=
TAN&repeated=REPEATED
```

The explanation of the parameter is shown in the following table (mandatory parameters are shown in bold and italic).

Parameter	Description	Since Version
user	Username – here, the BMC number allocated by the	1.0

	ContentCard Backoffice is entered.	
pass	Password – the password of the user. The minimum length of the password is 6 characters. The password has to be transferred URL-encoded.	1.0
cspid	The CSPID represents the customer using the ContentCard system. It is used for account settlement and it is allocated by ContentCard.	1.0
tan	The transaction code uniquely defines the loading process within the ContentCard System. It is returned by the system in the response to a booking request. After a booking request has been made, an execution request can be accepted within a period of 15 minutes. After this period, the validity of the booking request expires. Execution requests received after this period will cause an error message.	1.0
repeated	Determines if the request is a cancellation request or not: 0 = first cancellation 1 = repeating cancellation	1.0
action	***3***	1.0
serviceid	***2***	1.0
version (optional)	Optional field – if no specification is made, version "1.0" is selected. If a higher version number is transmitted, the structure of the XML response is based on the respective interface version.	1.0

A List of test data can be found in chapter "Testdata for Direct Top-Up".

Response to the cancellation

The response message generated by the server uses the XML format with the following structure:

Response:

```
<contentcard-result>

     <xtrc-cancel>
```

```
            <tan>transaction code</tan>

            <timestamp long="unix-timestamp">timestamp</timestamp>

            <xtrc-response-code>xtrc response code

            </xtrc-response-code>

      </xtrc-cancel>

</contentcard-result>
```

In case of an error occurring during the cancellation (i.e. Direct Top-Up service provider not available) an error message is reported back:

Error-Response:

```
<contentcard-result>

      <xtrc-error>

            <code>error code</code>

            <description>description text</description>

            <timestamp long="unix-timestamp">timestamp</timestamp>

            <tan>transaction code</tan> (optional)

            <xtrc-response-code>xtrc response code

            </xtrc-response-code> (optional)

            <must-cancel>1</must-cancel> (optional)

      </xtrc-error>

</contentcard-result>
```

In case the CANCEL-Tag shows the value 1 the cancellation has not arrived with the Direct Top-Up service provider. In this case the cancellation has to be repeated. The cancellation also has to be repeated, if the connection to the server has broken down before an answer was received.

Diagnosis request

This request is only valid forDirect Top-Up service and serves as a test for the availability of the Direct Top-Up service provider.

```
URL: https://ppu99.contentcard.com/contentcard/contentcarddemo.php?
user=USER&pass=PASSWORD&cspid=CSPID&action=4&serviceid=2&version=VERSION
```

The explanation of the parameter is shown in the following table (mandatory parameters are shown in **bold** and *italic*).

Parameter	Description	Since Version
user	Username – here, the BMC number allocated by the ContentCard Backoffice is entered.	1.0
pass	Password – the password of the user. The minimum length of the password is 6 characters. The password has to be transferred URL-encoded.	1.0
cspid	The CSPID represents the customer using the ContentCard system. It is used for account settlement and it is allocated by ContentCard.	1.0
action	***4***	1.0
serviceid	***2***	1.0
version (optional)	Optional field – if no specification is made, version "1.0" is selected. If a higher version number is transmitted, the structure of the XML response is based on the respective interface version.	1.0

A List of test data can be found in chapter "Testdata for Direct Top-Up".

Response to the diagnosis request

The response message generated by the server uses the XML format with the following structure:

Response:

```
<contentcard-result>

     <xtrc-diagnosis>

           <timestamp>timestamp</timestamp>

           <xtrc-response-code>xtrc response code

           </xtrc-response-code>

     </xtrc-diagnosis>

</contentcard-result>
```

If an error occurs for the diagnosis request (e.g. Direct Top-Up service provider not available), an error message is returned.

Error-Response:

```
<contentcard-result>

     <xtrc-error>

          <code>error code</code>

          <description>description text</description>

          <timestamp long="unix-timestamp">timestamp</timestamp>

          <tan>transaction code</tan> (optional)

          <xtrc-response-code>xtrc response code

          </xtrc-response-code> (optional)

          <must-cancel>1</must-cancel> (optional)

     </xtrc-error>

</contentcard-result>
```

Appendix

Testdata for ContentCard Activation

Booking Request / TAN-Request

Fieldname	Testdata	Remarks	Since Version
user	0049000001702044		1.0
pass	testtest		1.0
cspid	24330		1.0
action	1	Booking Request	1.0
serviceid	3	ContentCard Activation	1.0
ean13	4030382003036		1.3
serial (optional)		ContentCard serial numbers can be obtained from support@contentcard.com	1.2
posrefnum (optional)	123456789012		1.0

Execution

Fieldname	Testdata	Remarks	Since Version
user	0049000001702044		1.0
pass	testtest		1.0
cspid	24330	Please use Booking Request Value	1.0
tan			1.0
action	2	Execution Request	1.0

serviceid (optional)	3	ContentCard Activation	1.2
version (optional)			1.2

Cancellation Request

Fieldname	Testdata	Remarks	Since Version
user	0049000001702044		1.0
pass	testtest		1.0
cspid	24330		1.0
action	3	Cancellation Request	1.0
serviceid	3	ContentCard Activation	1.0
version (optional)			1.2

Status Request

Fieldname	Testdata	Remarks	Since Version
user	0049000031502042		1.0
pass	58zuigekjergh78		1.0
cspid	888		1.0
code		Test ContentCard Codes can be obtained from support@contentcard.com	1.0
action	6	Status Request	1.0

serviceid	3	ContentCard Activation	1.0
version (optional)			1.2

Redemption Request

Fieldname	Testdata	Remarks	Since Version
user	0049000031502042		1.0
pass	58zuigekjergh78		1.0
cspid	888		1.0
code		Test ContentCard Codes can be obtained from support@contentcard.com	1.0
action	7	Redemption Request	1.0
serviceid	3	ContentCard Activation	1.0
version (optional)			1.2
msisdn (optional)	%2B4916094500064		1.0
imei (optional)	123456781234561		1.0
userdata (optional)	userdata		1.0

Testdata for PinPrinting

Booking Request / TAN-Request

Fieldname	Testdata	Remarks	Since Version
user	0049000001702044		1.0
pass	testtest		1.0
cspid	24330		1.0
prodid	3868	Testproduct 0 EUR	1.0
curr	EUR		1.0
amount	0		1.0
action	1	Booking Request	1.0
serviceid	1	PinPrinting	1.0
version (optional)			1.2
posrefnum (optional)	123456789012		1.0

Execution

Fieldname	Testdata	Remarks	Since Version
user	0049000001702044		1.0
pass	testtest		1.0
cspid	24330		1.0
tan		Please use Booking Request Value	1.0
action	2	Execution Request	1.0

serviceid	1	PinPrinting	1.0
version (optional)			1.2

Testdata for Direct Top-Up service

Booking Request / TAN-Request

Fieldname	Testdata	Remarks	Since Version
user	0049000001702044		1.0
pass	testtest		1.0
cspid	24330		1.0
prodid	3849	Cash&Go 15 EUR	1.0
curr	EUR		1.0
amount	1500		1.0
msisdn	%2B4916094500064		1.0
action	1	Booking Request	1.0
serviceid	2	Direct Top-Up service	1.0
version (optional)			1.2

Execution

Fieldname	Testdata	Remarks	Since Version
user	0049000001702044		1.0
pass	testtest		1.0

cspid	24330	Please use Booking Request Value	1.0
tan			1.0
action	2	Execution Request	1.0
serviceid	2	Direct Top-Up service	1.0
version (optional)			1.2

Cancellation Request

Fieldname	Testdata	Remarks	Since Version
user	0049000001702044		1.0
pass	testtest		1.0
cspid	24330		1.0
tan		Please use Booking Request Value	1.0
repeated	0	first cancellation	1.0
	1	repeated cancellation	
action	3	Cancellation Request	1.0
serviceid	2	Direct Top-Up service	1.0
version (optional)			1.2

Diagnosis Request

Fieldname	Testdata	Remarks	Since Version
user	0049000001702044		1.0
pass	testtest		1.0
cspid	24330		1.0
tan		Please use Booking Request Value	1.0
repeated	0	first cancellation	1.0
	1	repeated cancellation	
action	4	Diagnosis Request	1.0
serviceid	2	Direct Top-Up service	1.0
version (optional)			1.2

Error codes

The possible error messages are described in the table below:

Code	Description	Action
0001	Permission denied	1,2,3,4,6,7
0002	Database error	1,2,3,4,6,7
0003	Bident error, ContentCard ID missing	1,2,3,4,6,7
0004	Internal Error: file not found	1,2,3,4,6,7
0005	* not assigned *	
0006	Value not known to ACTION	1,2,3,4,6,7
0007	Parameter format error	1,2,3,4,6,7
0008	* not assigned *	
0009	* not assigned *	
0010	* not assigned *	
0011	Internal error when running the access software	
0012	Parameter that has not been specified. The error text mentions which one.	1,2,3,4,6,7
0013	This system (cspid) is restricted to use msisdn +40722726321 only.	1,2
0014	Unexpected error while executing script	1
0015	Service is temporarily not available	1,2,3,4,6,7
0016	Expected tag is missing in call to plugin_loader	
0017	Sceduled site maintenance is in progress. Thank you for your patience!	1,2,3,4,6,7
0018	Service is temporarily not available	1,2,3,4,6,7
0019	Value not known to SERVICE	1,2,3,4,6,7
4201	Product unknown.	1,2
4202	Product that has not been activated	1,2
4203	Product type is not currently supported	1,2
4204	Inadequately specified currency	1,2
4205	Wrong product value	1,2

4207	Unknown member card	1,2,3,4,6,7
4208	Blocked member card	1,2,3,4,6,7
4210	Blocked card debitor	1,2,3,4,6,7
4212	Invalid card	1,2,3,4,6,7
4213	One has reached the (daily) card limit	1,2
4214	One has exceeded the debtor limit	1,2
4215	The card / cspid combination is not valid	1,2,3,4,6,7
4216	No poollimit for given CSPID	1,2
4217	Poollimit exceeded	1,2
42181 - 42189	Internal Error	1,2,3
4219	Wrong currency for operator.	1,2
4220	No pool defined for given product	1,2
4221	There is no pin for this type	1,2
4222	Error in pin reservation	1,2
4223	Error in pin reservation	1,2
4224	Plugin/Service status: maintenance	1,2,3,4,6,7
4225	Plugin/Service status: down	1,2,3,4,6,7
4226	Error connecting application server. See logs for details.	1,2,3
4227	Internal Error	1
4228	Internal Error	1
4249	Reservation not found fort he end of a PinPrinting transaction	2
4250	There is no booking for this TAN	2,3
4251	The transaction related data do not correspond to the booking	2,3
4252	The booking has expired	2
4253	Cancellation error	3
42531 -	Internal Error	3

42532		
4254	Invalid transaction status	2,3
42541	Cancellationtime is up	3
4255	Incorrect product type	1,2
4256	Transaction canceled	3
4257	Transaction incorrect	3
4258	Error while writing on DB	1,2,3
4259	Transaction not from current day. cancellation aborted	3
4260	Internal error. Please contact hotline.	1,2,3,6,7
4261	Internal Error	
4262	Batch not found in database	
4263	Internal Error	
4264	Internal Error	
4265	Serial number is wrong	
4266	Wrong parameters given. See logs for details.	
4267	Internal Error	
4268	Internal Error	
4269	Internal Error	
4270	Internal Error	
4271	Internal Error	
4272	Internal Error	
4273	Article not found (searched by EAN & CSPID)	
4274	Service is not available momentarily	
4275	Code has already been activated	1,2
4276	Internal Error	
4277	Internal Error	
4278	Internal Error	
4279	Internal Error	
4280	Internal Error	

4281	Internal Error	
4282	Internal Error	
4281	Internal Error	
4284	Internal Error	
4285	Internal Error	
4286	Content is not deliverable via SMS	
4287	Internal Error	
4288	This code has been cancelled	
4289	Cancellationtime is up.	
4290	Unknown transaction	
4291	Not a printable content	
4292	Ean does not match batch data	
4293	Card is locked	
4294	Operation not permitted	
4295	Card issuer did not respond in time	
13005	Error from Xtrc Server. More specific information is given in xtrc-response-code field.	3
13008	Virtual terminal is not configured. The BMCNO is not associated to a terminal id.	3
13010	Error validating received message. Message must be canceled.	3
13011	Error receiving data from Xtrc Server. Message must be canceled.	3

Error behavior

Error codes 0001 – 0100

These errors are related to the HTTPS interface. The most important error codes are described below.

Error code 0001 – permission denied

This error occurs if the specified BMCNO has not been activated for the ContentCard HTTPS service by the ContentCard Backoffice. To avoid this error, please contact the Content-Card Backoffice.

Error code 0002 – database error

This error will only occur in case of an internal processing problem and should not recur for the next request.

Should this still be the case, please notify the ContentCard Backoffice.

Error code 0006 - value not known to ACTION

A wrong value has been assigned to the “action” parameter.

Error code 0007 - parameter format error

A parameter violates the applicable rules (e.g. includes characters that are not allowed). In order to avoid this error, the request must be made correctly.

Error code 0011 - internal error when running the access software

This error will only occur in case of an internal processing problem and should not recur for the next request. Should this still be the case, please notify the ContentCard Backoffice.

Error code 0012 - parameter that has not been specified - The error text mentions which one.

A required parameter was not specified in the request; a notification in the error message indicates which one.

Error code 0015 - service is temporarily not available

Due to unscheduled maintenance work, the service is not available at the moment.

Error code 0016 - expected tag is missing in call to plugin_loader

This error will only occur in case of an internal processing problem and should not recur for the next request. Should this still be the case, please notify the ContentCard Backoffice.

Error code 0017 - scheduled site maintenance is in progress. Thank you for your patience!

Due to maintenance work, the service is not available at the moment.

Error code 0018 - service is temporarily not available

Due to unscheduled maintenance work, the service is not available at the moment.

Error code 0019 - value not known to SERVICE

A wrong value has been assigned to the "service" parameter.

Error code 0020-0023 – Internal error

This error can only hapen with internal problems with the handling of the request and should not happen again with the next request. In case this is still the case please inform with ContentCard Backoffice.

Error codes 4201 - 4299

These errors are ContentCard errors and need to be solved by the ContentCard Backoffice, i.e. credit limit reached.

Error codes 13000 - 13100

These error codes are reserved for T-Mobile error messages (i.e. the connection to T-Mobile direct top-up service could not be established).

Error codes 13101 - 13199

These error codes are reserved for ContentCard activation errors.

Error codes 14000 – 14100

These error codes are reserved for Transact error messages (i.e. the connection to Transact could not be established).

Error codes 14101 – 14200

These error codes are reserved for DirectPOS error messages (i.e. the connection to the DirectPOS could not be established).