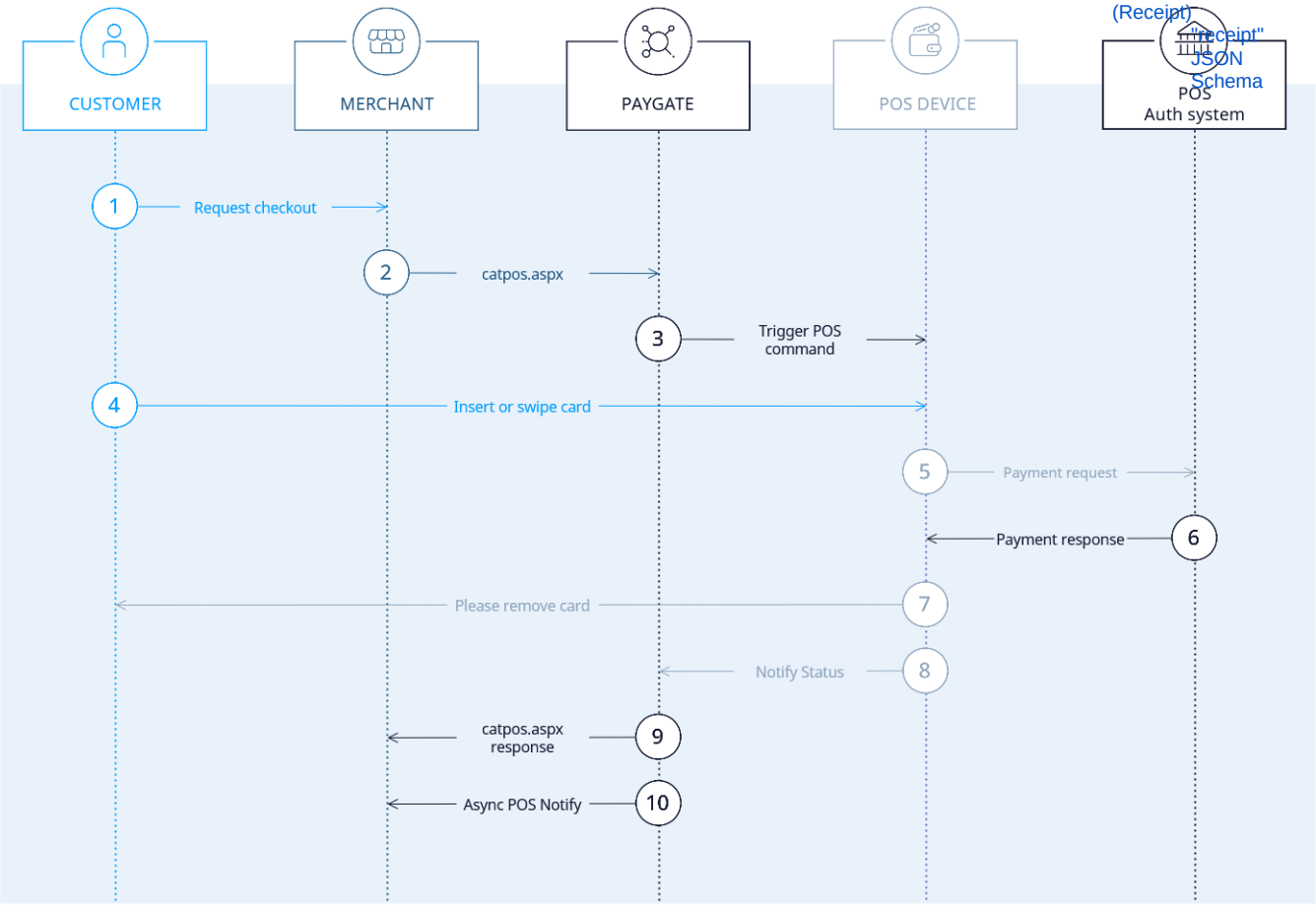
POS - Computop Cloud POS Interface (CPI)

Introduction and Prerequisites

Use your web-based ERP or shop system to accept card payments in stationery businesses. The communication of your terminals at the point of sale occurs via the Internet directly through Computop Paygate and makes traditional interfaces such as OPI or ZVT superfluous.

Process diagram



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
dttm	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 POS – Computop Cloud POS Interface

In order to use the Cloud POS Interface, please use the following URL:

https://www.computop-paygate.com/catpos.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
MerchantID	ans..30	M	MerchantID, assigned by Computop. Additionally this parameter has to be passed in plain language too.
MessageType	an2	M	Defines the type of payment: Supported values are: • **01** - Sale • **02** - Reverse • **03** - Credit • **05** - Authorization/Reservation • **0B** - Capture • **0C** - Card Read • **0D** - Diagnose • **A1** - Terminal Startup
CardReadMode	ans..10	C	Defines the technology to be used to read the card. Valid values are • **msr** Required for MessageType=0C (CardRead)
TransID	ans..64	M	TransactionID provided by you which should be unique for each payment
RefNr	ans..21	O	Merchant reference number
POSTerminalID	an..20	M	TerminalID of pin entry device

Printer	an1	M	Possible values that the merchant POS application can send are: **1** - Printer is ready **0** - Printer is not ready Should be populated with 1 (further clarifications are in progress for usage of value 0)
Amount	n..10	M	Amount in the smallest currency unit (e.g. EUR Cent). Please contact the Computop Helpdesk, 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: A1 Currency table
ReqId	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. **Notice:** Please note that a ReqID is only valid for 12 month, then it gets deleted at the Paygate.
localDate	n8	M	Transaction date: YYYYMMDD
localTime	n6	M	Transaction time: hhmmss
TraceNr	ans8	C	Mandatory for subsequent functions **Reversal** or **Capture** (MessageType=02/08). It must be equal to the value ***TraceNr*** received from the original authorization response. Merchant POS system must provide this in the request.
AppCode	ans6	C	Mandatory for subsequent function Capture (MessageType=08). It must be equal to the value ***Approvalcode*** received from the original authorization response. Merchant POS system must provide this in the request.
RTF	a1	O	Host protocol specific – COF: RTF parameter. Possible values: **I** or **E**
ContractID	n..12	O	Special merchant ID at the acquirer to overrule the default merchant ID

Parameters for payments with POS – Computop Cloud POS Interface

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-sentive

(Note: List of parameters in response may differ based on the Computop Cloud POS Interface function called and the final POS transaction result.)

Key	Format	CND	Description
mid	ans..30	M	MerchantID, assigned by Computop
TransID	ans..64	M	TransactionID provided by you which should be unique for each payment
Status	a..50	M	OK (URLSuccess) or FAILED (URLFailure)
RefNr	ans..21	O	Merchant reference number
Description	ans..1024	M	Further details in the event that payment is rejected. Please **do not** use the **Description but** the CATCode parameter for the transaction status analysis!
CATCode	ans3	M	Code from the POS Server or POS device
MaskedPAN	an12..19	C	Masked card number (6X4). Only in case of successful credit card transactions.
BankAccount	an64	C	Masked Bank account number for EC transactions
additionalresponsedata	an..128	O	Additional text which the operator's processing system can send optionally in replies to payment/cutover requests.

Approvalcode	ans6	C	Approval code from authorization host in the response message to the client. Only in case of successful credit card transactions. Merchant must save this value form the response and use it when referencing **Capture** subsequent action.
CCSeqNr	n3	O	Card sequence number
Brand	an..22	O	Brand: VISA, MasterCard, Maestro, AMEX, DINERS, JCB, CUP
CodeExt	n3	C	Financial transaction Authorization Host response code (Payment).
TraceNr	ans8	C	Merchant must save this value form the response and use it when referencing subsequent actions i.e **Reverse**, **Capture**
VUNr	n8	O	Acquirer Contract ID number on which the transaction was processed
Receipt	object	C	Receipt content for the Merchant and the cardholder. The information should be than used from Merchant Printer system to print out the respective receipts.
ReceiptNr	an..10	O	Receipt Number
schemeReferenceID / TransactionID	an..22	O	Unique transaction identifier provided by Schemes/Issuer to reference the transaction in MIT or COF scenarios
dccForeignAmount	n..10	O	Only when DCC was performed
dccCommission	ans..7	O	Only when DCC was performed
dccForeignCurrencyCode	n..4	O	Only when DCC was performed
dccDisclaimer (new Param)	ans..1024	O	Only when DCC was performed
dccMargin	ans..5	O	Only when DCC was performed
dccRateValue	n..13	O	Only when DCC was performed
dccSource	ans..32	O	Only when DCC was performed
dccTimestamp	ans..20	O	Only when DCC was performed
ExpiryDate	n..6	O	YYYYMM. Only when DCC was performed
PCNr	n16	O	Pseudo Card Number: Random number generated by Computop Paygate which represents a genuine credit card number. The pseudo card number (PCN) starts with 0 and the last 3 digits correspond to those of the real card number. The PCN can be used like a genuine card number for authorisation, capture and credits. PCNr is a **response value** from Computop Paygate and is sent as CCNr in Request or part of card-JSON.
PCNr	n16	O	Pseudo Card Number: Random number generated by Computop Paygate which represents a genuine credit card number. The pseudo card number (PCN) starts with 0 and the last 3 digits correspond to those of the real card number. The PCN can be used like a genuine card number for authorisation, capture and credits. PCNr is a **response value** from Computop Paygate and is sent as CCNr in Request or part of card-JSON.
VerificationCode	an..40	O	Used authentication mode. Possible values: • **Signature** • **PIN** • **On consumer device** • **NoAuth**
PayID	an..32	O	Computop PayID of the respective payment completed and linked with this CPI command
aidParameters	ans..1024	O	Authorisation parameters: if these are present, the authorisation parameters must be printed out on the terminal receipt in unpacked form as 10 hexadecimal numbers. Aid-parameters can contain up to 130 characters for electronic cash payments.
localDate	n..8	O	Transaction date: YYYYMMDD
localTime	n..6	O	Transaction time: hhmmss
RTF	a1	O	Echoed from the request parameter
ContractID	n..12	O	Echoed from the request parameter
POSTerminalId	an..20	O	Echoed from the request parameter
TerminalID	an..12	O	Terminal ID which is forwarded towards acquirer authorization host

Result parameters for payments with POS – Computop Cloud POS Interface

JSON Object (Receipt)

Please note that the data within this JSON object is encoded using **ISO-8859-1** in contrast to the standard encoding of JSON objects with UTF-8 and then must be also **Base64** encoded. This applies in particular to special characters such as "Umlaute" and diactrics.

"receipt"

Key	Format	CND	Description
receiptCopies	integer	O	Number of receipt copies to be printed
receiptCustomer	string	O	Customer receipt data
receiptMerchant	string	O	Merchant receipt data
receiptNumber	integer	O	Receipt number

JSON Schema

```
{
  "$schema": "http://json-schema.org/draft-07/schema#",
  "$id": "http://json-schema.org/draft-07/schema#",
  "title": "receipt",
  "description": "Data containing the receipt information which can be printed out by the merchant system",
  "type": "object",
  "properties": {
    "receiptMerchant": {
      "type": "string",
      "description": "Merchant Receipt data"
    },
    "receiptCustomer": {
      "type": "string",
      "description": "Customer Receipt data"
    },
    "receiptCopies": {
      "type": "integer",
      "description": "Number of receipt copies to be printed"
    },
    "receiptNumber": {
      "type": "integer",
      "description": "Receipt Number "
    },

  },
  "additionalProperties": false
}
```