

Monetra® *Payment System*

Protocol Addendum: Check Processing

Revision: 1.1
November 2009

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1 Check Processing Overview

Monetra® v7 and higher can process the following Electronic Check transaction types.

- Check Verification
- Check Conversion
- Check Image Storage/Upload



Note: We are constantly adding and updating support for multiple check processors. Please pay attention to our [Software Certifications](#) webpage for the most current information.

1.1 Check Verification

Verification is one of the oldest forms of check transactions. While some processors differ in their offerings, most of the time this simply performs a fraud check against the checking account. Note: Some processors offer a 'Guarantee' service as well to help merchants manage their risk.

1.2 Check Conversion

Check Conversion (also known as ACH) transactions will actually move money from the customers bank account to the merchants. There are many types of ACH transactions such as BOC (back office conversion) and POP (point of presence). Currently Monetra supports BOC. Note: Many processors require the MICR data to perform a Conversion so there will be a hardware requirement in those instances.

1.3 Check Image Storage/Upload

Check Image movement (like verification) is not a financial transaction (i.e. it does not move money). In most instances the Image store is simply used to research a check that finance has flagged for audit (such as NSF).

2 Check Processing Protocol

Integrated Check Processing within Monetra is performed exactly like Credit and Gift cards. You will simply use the following Monetra Actions.

2.1 Actions

CHECKVERIFY	Verify check
CHECKCONVONLY	Conversion Only
CHECKCONVVRFY	Conversion w/Verification
CHECKCONVGUAR	Conversion w/Guarantee
CHECKCONVOVER	Conversion w/Override
CHECKIMAGEUPLOAD	Upload check image (to Monetra, real upload happens at settlement)

2.2 Function Parameters

2.2.1 Verification/Conversion/Guarantee

MICR	Magnetically read TOAD data from check *Required on Conversion*
ABAROUTE	ABA Routing Number from check (required if no MICR)
ACCOUNT	Account number from check (required if no MICR)
ACCTTYPE	Account type (BUSINESS or PERSONAL). If not specified, defaults to a personal check. If specified, will use the *BIZ merchant id.number from check (required if no MICR). Certegy specific.
CHECKNUM	Check Number (not required for Verification)
AMOUNT	Amount on check
CASHBACKAMOUNT	Amount of cashback (already included in AMOUNT)
ORDERNUM	Alpha-numeric order number, will be passed as Echo Data - if CUSTOMECHO is True. Max 9 characters if used as echo data.
PTRANNUM	Numeric-only order number, will be passed as Echo Data if CUSTOMECHO is True and ORDERNUM was not sent. This field is also indexed and searchable. Max 9 digits if being used for echo data.
DLSTATE	2 character Drivers License State Code (caps only). Required if doing drivers license verification.
DLTRACK2	Track2 data from drivers license.
DLNUMBER	Drivers license number if not using Track2.
DOB	Optional. Date of Birth. 6 digit MMDDYY

2.2.2 Image Upload

TTID	TTID for Conversion transaction to which this check image belongs. Required if no unique ptrannum is specified.
PTRANNUM	Unique numeric order number for transaction. Can be used instead of TTID if passed on Conversion transaction and is unique in the batch.
IMAGE	TIFF image, base64 encoded (return characters should be removed). TIFF should be less than 64k in size, and use Compression Class 4 (FAX). (RDM outputs a compliant format already, no need to convert TIFF formats). LibMonetra 6.+ implements a new M_TransBinaryKeyVal() which will perform the base64 encoding for you.

2.2.3 Image Retrieval

Note: Image Retrieval is an administrative function.

ACTION	Always "admin" as it is a report.
ADMIN	Always "getimages".
TTID	ttid of image transaction. (Optional).
PTRANNUM	ptrannum of image transaction. (Optional)
BATCH	batch number assigned. (Optional)
STATUS	"settled" or "unsettled". (Optional)

Note: The response for an image retrieval request, like all Monetra reports, will be comma delimited data with headers.



ttid,status,ptrannum,batch,image

2.3 Response Parameters

BOUNCEFEE	Reg E. Amount charged for a returned check.
VERBIAGE	Human-readable response message returned from Echo.
STAN	Corresponds to processors returned NCN Transaction Number.
AUTH	Corresponds to Echo's AUTH NUM.
BATCH	Batch number assigned by Echo, only on Conversion.
CODE	Standard AUTH, DENY, etc response codes. Same as used for credit card processing to determine if a transaction was ultimately successfull.
PHARD_CODE	More detailed response to error condition returned by processor.
MSOFT_CODE	More detailed response to a Monetra-decline.

2.4 Error Codes

2.4.1 Processor Codes (PHARD)

BALANCE_MISMATCH	Returned on settlements if there was a balance mismatch with what Monetra has on file vs processor. It is returned even if the settlement is approved.
ID_ERROR	Error with ID, either in format or missing
REPRESENTED	Represented Check.
MANAGER_NEEDED	Manager needed (fraud/velocity warning?)

2.4.2 Monetra Codes (MSOFT)

DATA_MICR	Invalid MICR data, or no MICR sent when it was required.
DATA_ABAROUTE	Invalid ABAROUTE specified.

3 Processor Specific Information

For the latest processor setup parameters, please see our [website here](#).

3.1 Echo

Settlement Info:

At settlement time, Monetra sends a Batch Retrieval Transaction with a request for summary data which returns the balance Echo has on file. Monetra stores this information in memory and issues a Batch Close Transaction. If the batch close is successful and the balance returned from the summary request matches what Monetra has on file, it returns an auth and a phard_code of SUCCESS, if the balance did not match, the phard_code will return BALANCE_MISMATCH and someone must call the Echo helpdesk to determine where the mismatch lies.

3.2 Certegy

Currently Monetra only supports verification transactions ('CHECKVERIFY') with Certegy. Also, Certegy uses an additional (optional) field, 'dob', which is 6 digits, MMDDYY format.

Setup Parameters

The merchant account setup for Certegy uses some different parameters, Certegy has FM2MERCHANTID which is the merchant id for FM2 transactions, and DLCMERCHANTID which is the merchant id for drivers license with check number verifications. It uses FM2MERCHANTIDBIZ (which is the same as FM2MERCHANTID except for business checks and DLCMERCHANTIDBIZ for business checks processed via DriverLicense. It also uses a specific parameter called TERMTYPE that should only be used when directed by a representative of Main Street support.

4 Examples

4.1 Example: Check Verification

Transaction

```
=====
username=echk
password=test123
action=checkverify
abaroute=123456780
account=8091234567
amount=49.00
checknum=012
ordernum=V12345678
=====
```

Response

```
=====
code=AUTH
msoft_code=INT_SUCCESS
phard_code=SUCCESS
verbiage=AUTH NUM 682-414
auth=682-414
item=13
stan=049484956
timestamp=1203361917
cardtype=CHECK
=====
```

4.2 Example: Check Conversion

Transaction

```
=====
username=echk
password=test123
action=checkconvonly
micr=T123456780T 80912345670 012
amount=10.00
ordernum=C87654321
=====
```

Response

```
=====
ttid=31
code=AUTH
msoft_code=INT_SUCCESS
phard_code=SUCCESS
verbiage=AUTH NUM 656-484
auth=656-484
batch=1
item=25
stan=046328769
timestamp=1203119024
cardtype=CHECK
=====
```

4.3 Example: Check Image Upload

Transaction

```
=====
username=echk
password=test123
action=checkimageupload
ttid=31
image=(base64 encoded image data here)
=====
```

Response

```
=====
ttid=32
code=AUTH
msoft_code=INT_SUCCESS
phard_code=UNKNOWN
batch=1
item=25
=====
```

4.4 Example: Check Image Retrieval

Transaction

```
=====
username=echk
password=test123
action=admin
admin=getimages
=====
```

Response

```
=====
ttid,status,ptrannum,batch,image
32,unsettled,0,1,(base64 encoded image
data here)
=====
```

5 Document Version and Changes

Date	Version	Change
Aug, 2009	1.0	Initial version
Nov, 2009	1.1	* Re-formatted document for web and print. * Updated Certegy