

eCheck.Net® Developer Guide

Advanced Integration Method (AIM) Transactions

Authorize.Net Developer Support
<http://developer.authorize.net>

Authorize.Net LLC 082007 Ver.1.0

Authorize.Net LLC (“Authorize.Net”) has made efforts to ensure the accuracy and completeness of the information in this document. However, Authorize.Net disclaims all representations, warranties and conditions, whether express or implied, arising by statute, operation of law, usage of trade, course of dealing or otherwise, with respect to the information contained herein. Authorize.Net assumes no liability to any party for any loss or damage, whether direct, indirect, incidental, consequential, special or exemplary, with respect to (a) the information; and/or (b) the evaluation, application or use of any product or service described herein.

Authorize.Net disclaims any and all representation that its products or services do not infringe upon any existing or future intellectual property rights. Authorize.Net owns and retains all right, title and interest in and to the Authorize.Net intellectual property, including without limitation, its patents, marks, copyrights and technology associated with the Authorize.Net services. No title or ownership of any of the foregoing is granted or otherwise transferred hereunder. Authorize.Net reserves the right to make changes to any information herein without further notice.

Authorize.Net Trademarks:

Advanced Fraud Detection Suite™

Authorize.Net®

Authorize.Net Your Gateway to IP Transactions™

Authorize.Net Verified Merchant Seal™

Authorize.Net Where the World Transacts®

Automated Recurring Billing™

eCheck.Net®

FraudScreen.Net®



Table of Contents

Revision History	3
Section 1	4
Introduction	4
What is eCheck.Net®?	4
Minimum requirements	4
Developer Support	5
Section 2	6
Transaction Data Requirements	6
Conditional Fields	7
eCheck.Net Transaction Types	7
Accounts Receivable Conversion (ARC)	7
Back Office Conversion (BOC)	7
Cash Concentration or Disbursement (CCD)	8
Internet-Initiated Entry (WEB)	8
Prearranged Payment and Deposit Entry (PPD)	8
Telephone-Initiated Entry (TEL)	8
Section 3	9
Transaction Response	9
Response Codes	9
Response Reason Codes and Response Reason Text	9
Appendix A	12
Minimum Required Fields	12
Appendix B	13
eCheck.Net Return Codes	13
Appendix C	19
eCheck.Net NOC Codes	19

Revision History

PUBLISH DATE	UPDATES
August 2007	Release of eCheck.Net® Developer Guide
May 2008	Removal of SecureSource requirements
November 2009	Updated hyperlinks to AIM Developer Guide
December 2010	Add reference to SDKs
May 2011	Corrected link to Authorize.Net

Section 1

Introduction

Welcome to the eCheck.Net® Developer Guide. This guide is a supplement to the Advanced Integration Method developer guide, and describes the additional Web programming required to submit electronic check transactions through an Authorize.Net Card Not Present Payment Gateway account. The integration described in this guide is only necessary if a merchant plans on processing eCheck.Net transactions.

Note: The integration described in this document is not required for merchants using Server Integration Method (SIM) as all required eCheck.Net fields are provided by default on the payment gateway hosted payment form.

What is eCheck.Net®?

eCheck.Net® is Authorize.Net's exclusive electronic check processing solution. eCheck.Net enables Web merchants already processing credit card transactions via the Authorize.Net Payment Gateway to offer their customers an additional payment option.

The eCheck.Net service uses the Automated Clearing House (ACH) Network to process fund transfers from customer bank accounts to merchant bank accounts. The ACH Network is the group of financial institutions within the banking industry that facilitates the processing and clearing of electronic check payments. eCheck.Net transactions are strictly governed by processing rules established by NACHA, The Electronic Payments Association, as well as the Electronic Funds Transfer Act and Regulation E, as established by the Federal Reserve Board.

Minimum requirements

Before you implement eCheck.Net for a payment gateway account, please check with the merchant to ensure that the following minimum requirements have been met:

- **The merchant must have a U.S. based merchant bank account that allows Internet transactions.**
- **The merchant must have an e-commerce (Card Not Present) Authorize.Net Payment Gateway account.**
- **The merchant's Web site or other business application has been successfully integrated to the Authorize.Net Payment Gateway using Advanced Integration Method (AIM).** See the *AIM Developer Guide* at <http://developer.authorize.net/guides/AIM/> for more information.
- **The merchant has completed the eCheck.Net application and underwriting process with Authorize.Net and is enabled to process eCheck.Net transactions.**

Note: Merchants should avoid storing any type of sensitive cardholder information. However, in the event that a merchant or third party must store sensitive customer business or payment information, compliance with industry standard storage requirements is required. Please see the *Developer Security Best Practices White Paper* at <http://www.authorize.net/files/developerbestpractices.pdf> for guidelines.

Developer Support

There are several resources available to help you successfully integrate eCheck.Net for a merchant's payment gateway account.

- The Developer Center at <http://developer.authorize.net> provides test accounts, sample code, FAQs, and troubleshooting tools.
- If you can't find what you need in the Developer Center, our Integration Team is available to answer your integration questions via email at developer@authorize.net. (Please note that our Integration Team will only be able to assist with support requests specifically about the Authorize.Net application programming interface (API) and/or services.)
- Be sure to read our *Developer Security Best Practices White Paper* at <http://www.authorize.net/files/developerbestpractices.pdf> for information on how to maximize the security and reliability of your merchant integration solutions.
- The *eCheck.Net Operating Procedures and User Guide* at <http://www.authorize.net/files/echecknetuserguide.pdf> provides in-depth information regarding electronic check processing rules and regulations governed by NACHA, The Electronic Payments Association.

If you have any suggestions about how we can improve or correct this guide, please email documentation@authorize.net.

Software Development Kits

Authorize.Net offers software development kits (SDKs) that present an alternate object-oriented model, in several popular languages. To use these SDKs, the merchant's transaction version must be set to 3.1. The SDK performs the core payment activities (such as error handling and parsing, network communication, and data encoding) behind the scenes.

The SDK provides utility methods to help developers build payment flows for each of the integration methods. You can download the SDKs at <http://developer.authorize.net/downloads/>.

Section 2

Transaction Data Requirements

The following table represents the payment information fields required for submitting eCheck.Net transactions to the payment gateway.

Note: The fields documented below are required specifically for eCheck.Net transactions and should be submitted **in addition** to the minimum required fields for all transaction requests to the payment gateway. For more information on the minimum transaction field requirements, please see the *AIM Developer Guide* at <http://developer.authorize.net/guides/AIM/> or the section of this document titled “[Appendix A Minimum Required Fields.](#)”

FIELD	VALUE	FORMAT	NOTES
x_method	The payment method	ECHECK	The method of payment for the transaction, in this case ECHECK (electronic check). If left blank, this value will default to CC.
x_bank_aba_code	The valid routing number of the customer's bank	9 digits	
x_bank_acct_num	The customer's valid bank account number	Up to 20 digits	The customer's checking, business checking or savings bank account number.
x_bank_acct_type	The type of bank account	CHECKING, BUSINESSCHECKING, SAVINGS	
x_bank_name	The name of the bank that holds the customer's account	Up to 50 characters	
x_bank_acct_name	The name associated with the bank account	Up to 50 characters	
x_echeck_type	The type of electronic check transaction	ARC, BOC, CCD, PPD, TEL, WEB	The type of electronic check payment request. For more information see the “ eCheck.Net Transaction Types ” section of this document.
x_bank_check_number	The check number on the customer's paper check Required only when	Up to 15 characters	The check number is only required when a merchant is converting a customer's paper check into an electronic check. For more information see the

Last revised: 5/17/2011

FIELD	VALUE	FORMAT	NOTES
	x_echeck_type=ARC or BOC		“eCheck.Net Transaction Types” section of this document.

Conditional Fields

The following fields are required only for eCheck.Net WEB transactions.

FIELD	VALUE	FORMAT	NOTES
x_recurring_billing	The recurring billing status of the transaction Required only when x_echeck_type=WEB	TRUE, FALSE, T, F, YES, NO, Y, N, 1, 0	Indicates whether the transaction is a recurring billing transaction.

eCheck.Net Transaction Types

The following sections describe the eCheck.Net transaction types supported by the Authorize.Net Payment Gateway. Each code indicates how an eCheck.Net transaction is originated.

Note: Merchants are required to obtain the proper payment authorization from the customer for each eCheck.Net type, as dictated by NACHA, The Electronic Payments Association. For more information about the specific payment authorization requirements for each eCheck.Net type, see the *eCheck.Net Operating Procedures and User Guide* at <http://www.authorize.net/files/echecknetuserguide.pdf>.

Accounts Receivable Conversion (ARC)

This transaction type is a one-time charge against a customer's checking account.

ARC allows merchants to collect payments received in the mail or left in a drop-box, and convert them to an electronic payment.

Back Office Conversion (BOC)

This transaction type is a one-time charge against a customer's checking account.

BOC allows merchants to collect a check written at a point of sale (checkout counter, manned bill payment location, service call location) and convert it to an ACH debit during back office processing.

Cash Concentration or Disbursement (CCD)

This transaction type is a one-time or recurring charge or refund against a business checking account.

CCD transactions are fund transfers to or from a corporate entity.

Internet-Initiated Entry (WEB)

This transaction type is a one-time or recurring charge against a consumer checking or savings account and for which payment authorization was obtained from the customer via the Internet.

Prearranged Payment and Deposit Entry (PPD)

This transaction type is a one-time or recurring charge or refund against a consumer checking or savings account.

PPD transactions may only be originated when payment and deposit terms between the merchant and the customer are prearranged.

Telephone-Initiated Entry (TEL)

This transaction type is a one-time charge against a consumer checking or savings account that was originated via the telephone.

TEL transactions may only be originated when an existing relationship between the merchant and the customer exists; or if no relationship exists, the customer must initiate the telephone call to the merchant.

Section 3

Transaction Response

The transaction response from the payment gateway is a set of fields that provides information about the status of a transaction. For more information regarding the fields included in the payment gateway transaction response, please see the *AIM Developer Guide* at <http://developer.authorize.net/guides/AIM/>.

IMPORTANT: For the purposes of this document, the following tables describe only those responses that are specific to eCheck.Net transactions. For a complete list of responses, see the *AIM Developer Guide* at <http://developer.authorize.net/guides/AIM/>.

- **Response Code** indicates the overall status of the transaction with possible values of approved, declined, errored, or held for review.
- **Response Reason Code** is a numeric representation of a more specific reason for the transaction status.
- **Response Reason Text** details the specific reason for the transaction status. This information can be returned to the merchant and/or customer to provide more information about the status of the transaction.

Response Codes

RESPONSE CODE	DESCRIPTION
1	This transaction has been approved.
2	This transaction has been declined.
3	There has been an error processing this transaction.
4	This transaction is being held for review.

Response Reason Codes and Response Reason Text

RESPONSE CODE	RESPONSE REASON CODE	RESPONSE REASON TEXT	NOTES
3	9	The ABA code is invalid.	The value submitted in the x_bank_aba_code field did not pass validation or was not for a valid financial institution.
3	10	The account number is invalid.	The value submitted in the x_bank_acct_num field did not pass

Last revised: 5/17/2011

RESPONSE CODE	RESPONSE REASON CODE	RESPONSE REASON TEXT	NOTES
			validation.
3	18	ACH transactions are not accepted by this merchant.	The merchant does not accept electronic checks.
3	53	The transaction type was invalid for ACH transactions.	If x_method = ECHECK, x_type cannot be set to CAPTURE_ONLY.
3	71	The bank account type is invalid.	The value submitted in x_bank_acct_type was invalid.
3	100	The eCheck.Net type is invalid.	The value specified in the x_echeck_type field is invalid.
3	101	The given name on the account and/or the account type does not match the actual account.	The specified name on the account and/or the account type do not match the NOC record for this account.
3	104	This transaction is currently under review.	The value submitted for country failed validation.
3	105	This transaction is currently under review.	The values submitted for city and country failed validation.
3	106	This transaction is currently under review.	The value submitted for company failed validation.
3	107	This transaction is currently under review.	The value submitted for bank account name failed validation.
3	108	This transaction is currently under review.	The values submitted for first name and last name failed validation.
3	109	This transaction is currently under review.	The values submitted for first name and last name failed validation.
3	110	This transaction is currently under review.	The value submitted for bank account name does not contain valid characters.
3	243	Recurring billing is not allowed for this eCheck.Net type.	The combination of values submitted for x_recurring_billing and x_echeck_type is not allowed.
3	244	This eCheck.Net type is not allowed for this Bank Account Type.	The combination of values submitted for x_bank_acct_type and x_echeck_type is not allowed.
3	245	This eCheck.Net type is not allowed when using the payment gateway hosted payment form.	The value submitted for x_echeck_type is not allowed when using the payment gateway hosted payment form.
3	246	This eCheck.Net type is not allowed.	The merchant's payment gateway account is not enabled to submit the

Last revised: 5/17/2011

RESPONSE CODE	RESPONSE REASON CODE	RESPONSE REASON TEXT	NOTES
			eCheck.Net type.
3	247	This eCheck.Net type is not allowed.	The combination of values submitted for x_type and x_echeck_type is not allowed.
3	248	The check number is invalid.	Invalid check number. Check number can only consist of letters and numbers and not more than 15 characters.

Note: A very helpful tool for troubleshooting errors is available in our Developer Center at <http://developer.authorize.net/tools/responsereasoncode>.

Appendix A

Minimum Required Fields

The following table provides a quick reference of all API fields that are required for an eCheck.Net charge transaction for Advanced Integration Method transactions.

	FIELD
Merchant Information	x_login x_tran_key
Payment Information	x_method x_amount x_bank_aba_code x_bank_acct_num x_bank_acct_type x_bank_name x_bank_acct_name x_echeck_type x_bank_check_number (required only when x_echeck_type=ARC or BOC) x_recurring_billing (required only when x_echeck_type=WEB)

For more information about fields listed above that are not documented in this guide, please see the *AIM Developer Guide* at <http://developer.authorize.net/guides/AIM/>.

Appendix B

eCheck.Net Return Codes

The following table provides a description of the ACH return codes that may be received from the customer's bank in the event of a return or chargeback. Merchants are responsible for taking any appropriate action when eCheck.Net transactions are returned.

CODE	RETURN TYPE	SHORT TITLE	DESCRIPTION	REQUIRED ACTION	PERMISSIBLE ACTION
R01	Insufficient Funds (NSF)	Insufficient Funds	The customer's available balance is not sufficient to cover the dollar value of the charge.	None	Merchant may resubmit entry up to two (2) additional times without additional authorization.
R02	Administrative Return	Account Closed	A previously active account has been closed by the customer.	No further transactions may be submitted against this account.	Verify/obtain new bank account information and payment authorization from the customer.
R03	Administrative Return	No Account/ Unable to Locate Account	The account number passes digit validation, but does not correspond to the individual identified in the entry, or the account number designated is not an open account and has not been open in the past.	No further transactions may be submitted against this account.	Verify/obtain new bank account information and payment authorization from the customer.
R04	Administrative Return	Invalid Account Number	The account number is not valid. The transaction may have failed the digit validation or may contain an incorrect number of digits.	No further transactions may be submitted against this account.	Verify/obtain new bank account information and payment authorization from the customer.
R05	Administrative Return	Unauthorized Debit to Consumer Account Using Corporate SEC Code	A CCD debit entry was transmitted to a consumer account and was not authorized by the consumer.	No further transactions may be submitted against this account	Consumer may submit a written request for a credit from the RDFI within 15 days of the

CODE	RETURN TYPE	SHORT TITLE	DESCRIPTION	REQUIRED ACTION	PERMISSIBLE ACTION
		(adjustment entries)		number without new authorization.	availability of information pertaining to the unauthorized debit.
R06	Administrative Return	Returned per ODFI Request	The ODFI has requested that the customer's bank return the eCheck.Net transaction.	Contact Client Services to identify the reason for the return and correct as necessary.	Verify/obtain new bank account information and payment authorization from the customer.
R07	Chargeback	Authorization Revoked by Customer	The customer has revoked the authorization provided to the merchant for this particular transaction. The customer must provide their bank with an executed "Written Statement Under Penalty of Perjury" that the authorization for the charge entry has been revoked by the customer.	No further transactions may be submitted against this account number without a new authorization.	Verify/obtain new bank account information and payment authorization from the customer.
R08	Chargeback	Payment Stopped by Customer	The customer stopped payment on the transaction.	No further transactions may be submitted against this account number without a new authorization.	Verify/obtain new bank account information and payment authorization from the customer.
R09	Insufficient Funds (NSF)	Uncollected Funds	Sufficient balance exists to satisfy the amount of the transaction, but the value of transactions in the process of collection (i.e., uncollected checks) brings the available balance below the amount of the charge.	None	May resubmit entry up to two (2) additional times without additional authorization.
R10	Chargeback	Customer Advises Unauthorized	For WEB, TEL and PPD entries to consumer accounts, the customer has notified their bank that the merchant was not authorized to charge their account for a particular transaction. The customer must provide their bank with a "Written Statement Under Penalty of Perjury" that the charge was not authorized by the customer. A charge was not authorized by the customer	No further transactions may be submitted against this account number without a new authorization.	Verify/obtain new account information and payment authorization from customer.

Last revised: 5/17/2011

CODE	RETURN TYPE	SHORT TITLE	DESCRIPTION	REQUIRED ACTION	PERMISSIBLE ACTION
			<p>if:</p> <ol style="list-style-type: none"> 1) The customer did not authorize the merchant to initiate the charge to the customer's bank account; 2) The authorization was not in writing and signed or similarly authenticated by the customer; 3) For TEL and PPD entries the customer was not notified with the authorization that the customer may revoke the authorization by notifying the merchant as specified; 4) The charge was initiated in an amount greater than that authorized by the customer; or, 5) The charge was initiated before the customer authorization was received. <p>An unauthorized charge does not include a charge initiated with fraudulent intent by the customer or any person acting in concert with the customer. This code applies to entries to personal bank accounts only.</p>		
R12	Administrative Return	Branch Sold to Another DFI	The customer's account has been sold to another depository financial institution (DFI) and the original bank no longer maintains the account and is unable to post the transaction.	No further transactions may be submitted against this account number.	Verify/obtain new bank account information and payment authorization from the customer.
R13	Administrative Return	RDFI Not Qualified to Participate	The customer's bank is not qualified to participate or the routing number provided is not valid. (This return code is not used when Authorize.Net rejects a transaction for invalid routing numbers.)	No further transactions may be submitted against this account number.	Verify/obtain new bank account information and payment authorization from the customer.
R14	Administrative Return	Representative Payee Deceased	The representative payee is a person or institution authorized to accept entries on behalf of one or more other persons, such as legally incapacitated adults or minor children. The	No further transactions may be submitted against this account	Verify/obtain new bank account information and payment authorization from the customer.

Last revised: 5/17/2011

CODE	RETURN TYPE	SHORT TITLE	DESCRIPTION	REQUIRED ACTION	PERMISSIBLE ACTION
			representative payee is either deceased or unable to continue in that capacity. The beneficiary is not deceased.	number.	
R15	Administrative Return	Beneficiary or Account Holder Deceased	<ul style="list-style-type: none"> The beneficiary is deceased. The beneficiary may or may not be the customer; or, The customer (acting in a non-representative payee capacity) is an owner of the account and is deceased. 	No further transactions may be submitted against this account number.	Verify/obtain new bank account information and payment authorization from the customer.
R16	Administrative Return	Account Frozen	The funds in the account are unavailable due to specific action taken by the customer's bank or by legal action.	No further transactions may be submitted against this account number while it is frozen.	Verify/obtain new bank account information and payment authorization from the customer.
R17	Administrative Return	RDFI Cannot Process	The customer's bank cannot process the entry.	Contact Authorize.Net Client Services to identify reason for return and correct as necessary.	Verify/obtain new bank account information and payment authorization from the customer.
R20	Administrative Return	Non-Transaction Account	The transaction destined for a non-transaction account, as defined in Federal Regulation D, included either an account against which transactions are prohibited or limited, or a pass-through where the entry is for a credit union or thrift organization and Federal Regulation E descriptive requirements cannot be met.	No further transactions may be submitted against this account.	Verify/obtain new bank account information and payment authorization from the customer.
R23	Administrative Return	Credit Refused by Customer	<ul style="list-style-type: none"> A minimum amount required by the customer has not been remitted; The exact amount required has not been remitted; The account is subject to litigation and the customer will not accept the 	Identify and correct the problem prior to resubmission.	Verify/obtain new bank account information and payment authorization from the customer.

Last revised: 5/17/2011

CODE	RETURN TYPE	SHORT TITLE	DESCRIPTION	REQUIRED ACTION	PERMISSIBLE ACTION
			transaction; <ul style="list-style-type: none"> • Acceptance of the transaction results in an overpayment; • The merchant is not known by the customer; or, • The customer has not authorized this refund entry to this account. 		
R24	Administrative Return	Duplicate Entry	The customer's bank has received what appears to be a duplicate transaction; e.g., the trace number, date, amount and/or other data matches another transaction.	Identify and correct the problem prior to resubmission.	Verify transaction information and/or obtain new bank account information and payment authorization from the customer.
R29	Chargeback	Corporate Customer Advises Not Authorized	The corporate customer has notified their bank that a specific transaction has not been authorized by the customer.	No further transactions may be submitted against this account number without a new authorization.	Verify/obtain new bank account information and payment authorization from the customer.
R30	Administrative Return	RDFI is Not an ACH Participant	The customer's bank does not participate in the ACH Network.	No further transactions may be submitted against this account.	Verify/obtain new bank account information and payment authorization from the customer.
R31	Administrative Return	Permissible Return	The customer's bank has been notified that the ODFI agrees to accept a CCD return entry.	Contact Authorize.Net Client Services to identify reason for return and correct as necessary.	Verify/obtain new bank account information and payment authorization from the customer.
R32	Administrative Return	RDFI is not a Settlement RDFI	The customer's financial institution (the "RDFI") is not able to settle the entry.	No further transactions may be submitted against this account.	Verify/obtain new bank account information and payment authorization from the customer.
R34	Administrative Return	RDFI not Qualified to	The customer's bank's participation has been limited	No further transactions	Verify/obtain new bank account

Last revised: 5/17/2011

CODE	RETURN TYPE	SHORT TITLE	DESCRIPTION	REQUIRED ACTION	PERMISSIBLE ACTION
		Participate	by a federal or state supervisor.	may be submitted against this account.	information and payment authorization from the customer.
R35	Administrative Return	Return of Improper Debit Entry	ACH charge entries are not permitted on loan accounts.	No further transactions may be submitted against this account.	Verify/obtain new bank account information and payment authorization from the customer.
R36	Administrative Return	Return of Improper Credit Entry	ACH refund entries (with the exception of reversals) are not permitted for use with the WEB code	Correct the deficiency prior to resubmission. Refunds to consumer accounts must be submitted as PPD entries.	Obtain proper authorization to resubmit as a PPD entry.

Appendix C

eCheck.Net NOC Codes

The following table provides a description of the ACH notice of change (NOC) codes that may be received from the customer's bank in the event of a discrepancy in the bank information provided with the transaction. Merchants are responsible for taking any appropriate action when a notice of change is received.

CODE	NOC REASON	DESCRIPTION	REQUIRED ACTION
C01	Incorrect DFI account number	The customer's bank account number is incorrect.	Correct all applicable records prior to submitting a subsequent eCheck.Net transaction for the same customer.
C02	Incorrect routing number	The bank's ABA routing number is incorrect.	Correct all applicable records prior to submitting a subsequent eCheck.Net transaction for the same customer.
C03	Incorrect routing number and incorrect DFI account number	The bank's ABA routing number is incorrect and as a result the bank account number structure is also incorrect.	Correct all applicable records prior to submitting a subsequent eCheck.Net transaction for the same customer.
C04	Incorrect individual name / receiving company name	The individual or company name associated with the bank account is incorrect.	Correct all applicable records prior to submitting a subsequent eCheck.Net transaction for the same customer.
C05	Incorrect transaction code	The transaction was submitted to a certain account type but includes a conflicting account type code (checking / savings).	Correct all applicable records prior to submitting a subsequent eCheck.Net transaction for the same customer.
C06	Incorrect DFI account number and incorrect transaction code	The customer's bank account number is incorrect and the transaction should be submitted to a different account type (checking / savings).	Correct all applicable records prior to submitting a subsequent eCheck.Net transaction for the same customer.

CODE	NOC REASON	DESCRIPTION	REQUIRED ACTION
C07	Incorrect routing number, incorrect DFI account number, and incorrect transaction code	The bank's ABA routing number and the bank account number are incorrect; and the transaction was submitted to a certain account type but includes a conflicting account type code (checking / savings).	Correct all applicable records prior to submitting a subsequent eCheck.Net transaction for the same customer.
