

# SpeedChex ServerLink Advanced API

## Implementation Instructions

### Version 1.6

#### Introduction

The **SpeedChex Payment Gateway** provides merchants with the ability to establishing secure automated communications between an Internet aware software application and the SpeedChex check processing system. The ***ServerLink Advanced API*** is designed for merchants who want to electronically submit individual, fully-formed check transactions and receive an immediate authorization status indicating whether the transaction is approved or rejected.

Merchants who want to use the ***ServerLink Advanced API*** must be responsible for collecting and submitting all data associated with an electronic check transaction. Please see the table titled *Electronic Check Transaction Packet Format* for a list of all required data fields.

#### Process Overview

The concept behind the ***ServerLink Advanced API*** process is fairly simple and should not take very long to implement. The following list shows the major steps involved in this process:

- Step 1. **Data Gathering** - Merchants are responsible for collecting and submitting all data associated with a fully-formed electronic check transaction.
- Step 2. **Transaction Packet Submission** – The merchant’s software application uses the HTTPS protocol to submit an electronic check transaction packet over the Internet to a secure URL located on the SpeedChex Payment Gateway.
- Step 3. **Transaction Packet Validation** – The SpeedChex Payment Gateway parses the transaction packet for missing data, invalid field values, security violations, etc.
- Step 4. **Customer Address Verification** (optional) – For merchants who have activated this feature through their sales rep, SpeedChex will perform address verification on the customer data.
- Step 5. **Authorization Status Notification** – The SpeedChex Payment Gateway will return an “Authorization Status” in response to the HTTPS request sent by the merchant to indicate whether the transaction was accepted for processing or rejected.

Please note that the ***ServerLink Advanced API*** is only designed to validate the contents of an electronic check transaction packet and to optionally perform customer address verification before the transaction is sent through the Federal Reserve System for processing. Real-time financial balance and account number verification is not yet possible under the current banking environment.

## **Data Security and Protection**

All transaction data sent to and from the **SpeedChex Payment Gateway** is secured during transmission using 128-bit SSL encryption verified by Thawte, a VeriSign subsidiary. The data received by the gateway is ultimately stored on the SpeedChex servers which are protected by a state-of-the-art firewall system and restricted physically to authorized personnel only.

Every merchant is assigned a unique Merchant ID, login name, and password that must be included as part of each data packet sent to the gateway. In addition, an IP filtering scheme is used to ensure that transaction packets are only received and processed if the IP address of the computer system sending the transaction fits into the IP address range specified in the merchant's security profile.

## **NACHA SEC Codes – Brief Explanation**

NACHA requires that a transaction submitted to the Federal Reserve for processing must include something called a Standard Entry Class (SEC) Code to communicate exactly how the customer gave you authorization to debit/credit their bank account. There are only a few authorization methods allowed by NACHA, so this list of SEC Codes is very short.

The following table shows the proper SEC Codes to use depending on how you obtained the authorization to debit/credit an individual or company's bank account:

<b><u>Authorization Method</u></b>	<b><u>SEC Code</u></b>
Document Signed by Individual	PPD
Document Signed by Company*	CCD
Via the Internet	WEB
Recorded Telephone Call	TEL
Check Converted to Electronic Transaction at the Point-of-Sale	POP
Check Received via Mail/Courier and Converted to Electronic Transaction	ARC

\* All transactions from a business account must be CCD and authorized by a signed document or an equivalent electronic signature.

Please refer to the document entitled *NACHA SEC Codes* for further explanation of each SEC Code and its proper use. This document can be found at <http://www.speedchex.com/technicaldocuments>.

## **Implementation Instructions**

1. **Packet Definition and Rules** - Familiarize yourself with the *Electronic Check Transaction Packet Format* table located on the next page. This table defines all data elements that are required for creating a fully-formed electronic check transaction packet.
2. **Data Gathering** - Create the processes and data input tools necessary for your software application to collect the required data elements. Please make sure that your software also validates the user input according to the format rules specified for each field in the transaction packet.
3. **Transaction Packet Submission** – To submit electronic check transactions to SpeedChex, use either HTTP POST or GET to transmit all required data to the following secure URL:

<https://www.speedchex.com/datalinks/merchants/serverlink-advanced.asp>

If using HTTP GET, please make sure that all data values have been encoded to be URL-safe.

4. **Authorization Status Processing** – In response to the HTTP POST or GET, the SpeedChex Payment Gateway will send a single text string of name/value pairs delimited by commas. The values in these fields will indicate whether the transaction was accepted or rejected, and if rejected, the reason for rejection and the field associated with the error.

The *Authorization Status Packet Format* table on the last page defines the response fields and their potential values. Your software will need to be able to parse this name/value text string to extract and process the authorization information.

If you have any questions about this process, please contact your support representative or send an email to [support@speedchex.com](mailto:support@speedchex.com).

## Electronic Check Transaction Packet Format

Field Name	Usage	Field Value Format Constraints	Max Length
MerchantID	Required	Provided to you by your Sales Rep	-
GateID	Required	Provided to you by your Sales Rep	-
GateKey	Required	Provided to you by your Sales Rep	-
ReferenceID	Optional	The unique internal ID or invoice number your company has assigned to this transaction	25
Description	Optional	A description of this transaction	100
PaymentDirection	Required	Value must be either 'FromCustomer' to indicate you are collecting money from the customer or 'ToCustomer' to indicate you are sending money to the customer	12
CheckAmount	Required	The amount of the check. Do not include \$ sign or comma	-
DateScheduled	Required	Must be the same day or a future date. DateScheduled will be reset to next banking date if transaction is scheduled for "today's" date and the cut-off time for processing "today's" transactions has passed. (Format: MMDDYYYY).	8
CustomerID	Optional	The internal ID your company has assigned to this customer. If this field is not defined, SpeedChex will create a new customer record even if this is a repeat customer.	20
CustomerName	Required	Customer's personal name	40
Company	Conditional	Customer's company name. This field is required if the <i>AccountType</i> field value is 'Company'.	40
Address1	Required	Customer's address	40
Address2	Optional	Customer's address	40
City	Required	Customer's city	40
State	Required	Customer's state. Accepts state name or 2 letter abbreviation.	20
Zip	Required	Customer's zip. (Format: ##### or ##### ####)	10
Phone	Required	Customer's phone number. Any format, but must contain 10 digits	10
SSN	Conditional	Customer's Social Security Number. Any format, but must contain 9 digits. Merchant has option in SpeedChex Admin to require SSN.	9
Email	Conditional	Customer's email address. This field is required if the <i>SendEmailToCustomer</i> field value is 'Yes'	40
SendEmailToCustomer	Required	Value must be either 'Yes' or 'No'	3
BankName	Required	Name of customer's bank.	50
AccountType	Required	Customer's bank account type. Value must be either 'Personal' to indicate a personal checking account or 'Company' to indicate a business checking account	8
AccountClass	Required	Customer's bank account category. Value must be either 'Checking' or 'Savings'	8
RoutingNumber	Required	ABA routing number on customer's check. Must be nine digits only.	9
CheckNumber	Required	Next check number in customer's checkbook	25
AccountNumber	Required	Customer's bank account number	30
ExpressVerify	Optional	Value must be either 'Yes' or 'No'. Default is 'Yes'. This field gives merchants using <i>SpeedChex Express Verify</i> the ability to enable or disable verification at the transaction level.	3
TestMode	Optional	Value is 'On'. This field should only be included when sending test transactions.	2
SECCode	Required	Values must be one of the following: 'PPD', 'CCD', 'WEB', 'TEL', 'POP', 'BOC' or 'ARC'. Please refer to the section of this document entitled <b>NACHA SEC Codes – Brief Explanation</b> to know which value to put into this field.	3

## Authorization Status Packet Format

<b>Return</b>	<b>Field Value Format Constraints</b>	<b>Max Length</b>	<b>Purpose</b>
ReturnCode	000 – Accepted 001-999 – Rejected with Reason  Please refer to the <i>Return Code Definitions</i> table for more details	3	Provides the internal code SpeedChex uses to reference the exact return status of this transaction
ErrorDescription	Please refer to the <i>Return Code Definitions</i> table	100	If the transaction was rejected, this field gives a text description of the reason for rejection
ErrorField	One of the Field Names defined in the <i>Electronic Check Transaction Packet Format</i> table	16	If the transaction was rejected, this field specifies and the field name in the original transaction packet that corresponds to the reason for rejection
TrackingCode	A unique id assigned to this check authorization attempt.	-	This value can be used as reference when talking to SpeedChex technical support regarding a specific check authorization attempt.
VerificationStatus	ERR, POS, NEG or UNK. Please refer to the document titled <i>SpeedChex Express Verify Response Codes</i> for more details.  Note: The Verification_Response fields will only contain data when the ReturnCode is 000 or 008 and you have <i>SpeedChex Express Verify</i> turned on for your merchant account.	3	Indicates whether this account is in positive standing, negative standing, an unknown standing, or if there was an error with the data packet.
VerificationCode	Please refer to the document titled <i>SpeedChex Express Verify Response Codes</i> for more details.	3	To provide a unique code associated with the current status of this account.
VerificationText	Please refer to the document titled <i>SpeedChex Express Verify Response Codes</i> for more details.	100	To show a simple description of the current status of this account.

## Return Code Definitions

Return Code	Error Description	Error Field
000	Transaction Approved. No Errors.	-
001	Invalid Login	-
002	Required Field Missing	Any Required Field
003	Field Value Violates Format Constraint	Any Field
004	Field Value Exceeds Maximum Length	Any Field
005	Routing Number Fails Authentication	RoutingNumber
006	Transaction Request Already Processed	CheckNumber
007	Please Contact Support Representative	-
008	Failed Verification. This field will contain the verification Response Code and the Response Text separated by a colon.  Please refer to the document titled <i>SpeedChex Express Verify Response Codes</i> for more details.	-
009 – 997	Reserved for Future Use	
997	Other – Please Contact Support Representative	-
998	Other – Please Contact Support Representative	-
999	Other – Please Contact Support Representative	-

*Note: These error descriptions and error field values are for merchant reference only. To prevent fraudulent activity, please do not display the Error Description or Error Field values to the public when a transaction is rejected.*

## **Version Changes**

### ***Version 1.1*** - Modified May 27, 2003

Added Return Code 006 (Transaction Request Already Processed) which rejects a transaction if the routing number, account number, and check number have been submitted previously.

Added Return Code 007 (Please Contact Support Representative) to reject transactions that might be a security concern.

### ***Version 1.2*** - Modified June 15, 2003

Added Return Code 008 (Failed Verification) to provide feedback for merchants who subscribe to the SpeedChex bank account verification system.

### ***Version 1.3*** - Modified February 16, 2005

Added the optional *verification* field which can be set to 'Yes' or 'No' so that merchants using SpeedChex *verification* will have the ability to control verification at the transaction level.

### ***Version 1.4*** - Modified May 15, 2005

Added the required field SECCode to comply with NACHA regulations better by allowing merchants to specify exactly how they obtained authorization to debit a customer's account.

### ***Version 1.5*** - Modified July 28, 2005

Added verification response fields to the Authorization Status Packet data returned for each authorization request. The Response Code and Response Text will continue to be included in the description of a 008 return until a future upgrade when merchants will have sufficient time to update their software to pull this information from the Authorization Status Packet instead.

### ***Version 1.6*** - Modified July 17, 2007

Changed the name of this API from "Express Authorization API" to "SpeedChex ServerLink Advanced API". Changed the URL to reflect the new name of the API to <https://www.speedchex.com/datalinks/merchants/serverlink-advanced.asp>

All references to SpeedChex *bank account verification* services have been changed to reflect the new product name which is *SpeedChex Express Verify*.