



**StorageSafe Transactions Guide  
V1.0**

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### **Transaction Services**

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## **Transaction Services**

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## About This Guide

This guide lists all the StorageSafe transaction types supported by the system. Each listed transaction includes a brief description and an example of a typical request message and the corresponding response returned by the Transaction Services server. Each request example includes *all* the required elements for the transaction, and may also show one or more optional elements that may be included in the transaction.

**Note:** Optional elements in the request examples appear in *italics*.

Note that the request examples do not contain all the supported elements/features for each transaction. Please see the individual XML schema definition (XSD) files for a complete list of supported elements for each transaction.

## References

### *Transaction Services XML API Overview*

Contains introductory information plus:

- Description of transaction components
- Instructions for building XML transactions
- Encryption requirements
- List of valid characters
- Base64 encoding information
- Modulus check information
- Descriptions and definitions of all supported data elements

### *Financial Transactions Guide*

Describes and contains examples of request and response messages for all the financial transactions supported by the system.

### *Reporting Transactions Guide*

Describes and contains examples of request and response messages for all the reporting transactions supported by the system.

### *Rules Engine Transactions Guide*

Describes and contains examples of request and response messages for all the rules engine transactions supported by the system.

### *Batch Transactions Guide*

Describes and contains examples of request and response messages for all the batch-related transactions supported by the system.

### *XML Schema Definition (XSD) Files*

Individual files for each transaction define all the required and optional elements that can be included in request messages. Available at the Transaction Services website ([www.trxservices.com](http://www.trxservices.com)).

## **What Is StorageSafe?**

Transaction Services allows merchants to securely store and create tokens for sensitive customer information using the StorageSafe transaction type. Merchants can create a StorageSafe record, referred to as a "wallet," that serves as a container that can hold multiple instances of three types of individual StorageSafe records: Consumer, Account, and Shipping records.

Each instance of each Consumer, Account, and Shipping record is assigned a unique identifier called a Guid (Global Unique ID, pronounced "Goo-id") when the record is created in StorageSafe. The Guid is stored separately from the sensitive data for each record. The merchant then has no direct access to the stored sensitive data. Instead, the merchant uses the Guid for each Consumer, Account, or Shipping record to retrieve the stored data for use in later transactions.

Since the Guids are not derived from card information and cannot be reverse-engineered into sensitive data, removing the card data and storing only the Guids assists the merchant with reducing the scope of PCI-DSS Certification and removes the risk associated with storing card data.

This guide contains descriptions and examples of the StorageSafe transactions used to create and manage StorageSafe records within the Transaction Services system using the Transaction Services API.

**StorageSafe Transactions**
**StorageSafe Activate**

Requests that the record associated with the specified Account, Shipping, or Consumer Guid be activated if it was previously deleted. If no Account, Shipping, or Consumer Guid is specified, the action is performed for all the individual Account, Shipping, and Consumer records in the specified StorageSafe "wallet."

Request	Response
<pre> &lt;Message&gt;   &lt;Request&gt;     &lt;Detail&gt;       &lt;TranType&gt;StorageSafe&lt;/TranType&gt;       &lt;TranAction&gt;Activate&lt;/TranAction&gt;     &lt;/Detail&gt;     &lt;StorageSafe&gt;       &lt;Guid&gt;3VTMQJPYG65BA2A&lt;/Guid&gt;     &lt;/StorageSafe&gt;     &lt;Account&gt;       &lt;Guid&gt;3VTMQJPYG6VTZ2B&lt;/Guid&gt;     &lt;/Account&gt;   &lt;/Request&gt;   &lt;Authentication&gt;     &lt;Client&gt;73&lt;/Client&gt;     &lt;Source&gt;1&lt;/Source&gt;   &lt;/Authentication&gt; &lt;/Message&gt; </pre>	<pre> &lt;Message&gt;   &lt;Response&gt;     &lt;Reference&gt;       &lt;Guid&gt;405AXKGTFKWZ0F2&lt;/Guid&gt;       &lt;TranDate&gt;05/12/2014&lt;/TranDate&gt;       &lt;TranTime&gt;19:10:22&lt;/TranTime&gt;     &lt;/Reference&gt;     &lt;Result&gt;       &lt;ResponseCode&gt;00&lt;/ResponseCode&gt;       &lt;ResponseText&gt;Record         Updated&lt;/ResponseText&gt;     &lt;/Result&gt;   &lt;/Response&gt;   &lt;Authentication&gt;     &lt;Client&gt;73&lt;/Client&gt;     &lt;Source&gt;1&lt;/Source&gt;   &lt;/Authentication&gt; &lt;/Message&gt; </pre>

**StorageSafe Append**

Requests that record(s) for the specified Account, Shipping, or Consumer data be appended to the specified StorageSafe "wallet."

Request	Response
<pre> &lt;Message&gt;   &lt;Request&gt;     &lt;Detail&gt;       &lt;TranType&gt;StorageSafe&lt;/TranType&gt;       &lt;TranAction&gt;Append&lt;/TranAction&gt;     &lt;/Detail&gt;     &lt;StorageSafe&gt;       &lt;Guid&gt;3VTMQJPYG65BA2A&lt;/Guid&gt;     &lt;/StorageSafe&gt;     &lt;Account&gt;       &lt;Expiration&gt;1215&lt;/Expiration&gt;       &lt;Pan&gt;4000000000000002&lt;/Pan&gt;       &lt;Postal&gt;12345&lt;/Postal&gt;     &lt;/Account&gt;   &lt;/Request&gt;   &lt;Authentication&gt;     &lt;Client&gt;73&lt;/Client&gt;     &lt;Source&gt;1&lt;/Source&gt;   &lt;/Authentication&gt; &lt;/Message&gt; </pre>	<pre> &lt;Message&gt;   &lt;Response&gt;     &lt;Reference&gt;       &lt;Guid&gt;405BHN7EFLW4D24&lt;/Guid&gt;       &lt;TranDate&gt;05/12/2014&lt;/TranDate&gt;       &lt;TranTime&gt;19:27:20&lt;/TranTime&gt;     &lt;/Reference&gt;     &lt;Result&gt;       &lt;ResponseCode&gt;00&lt;/ResponseCode&gt;       &lt;ResponseText&gt;Record       Appended&lt;/ResponseText&gt;     &lt;/Result&gt;     &lt;Account&gt;       &lt;Guid&gt;405BHNQVG68RU01&lt;/Guid&gt;     &lt;/Account&gt;   &lt;/Response&gt;   &lt;Authentication&gt;     &lt;Client&gt;73&lt;/Client&gt;     &lt;Source&gt;1&lt;/Source&gt;   &lt;/Authentication&gt; &lt;/Message&gt; </pre>

In this example, account data is being appended to the specified StorageSafe "wallet." Note that the Response message includes an Account Guid. This is the Guid used to retrieve the stored Account data for use in later transactions.



**StorageSafe Delete**

Requests that the record associated with the specified Account, Shipping, or Consumer Guid be deleted or deactivated so that it cannot be used for processing. If no Account, Shipping, or Consumer Guid is specified, the action is performed for all the individual Account, Shipping, and Consumer records in the specified StorageSafe "wallet."

Request	Response
<pre> &lt;Message&gt;   &lt;Request&gt;     &lt;Detail&gt;       &lt;TranType&gt;StorageSafe&lt;/TranType&gt;       &lt;TranAction&gt;Delete&lt;/TranAction&gt;     &lt;/Detail&gt;     &lt;StorageSafe&gt;       &lt;Guid&gt;3VTMQJPYG65BA2A&lt;/Guid&gt;     &lt;/StorageSafe&gt;     &lt;Account&gt;       &lt;Guid&gt;3VTMQJPYG6VTZ2B&lt;/Guid&gt;     &lt;/Account&gt;   &lt;/Request&gt;   &lt;Authentication&gt;     &lt;Client&gt;73&lt;/Client&gt;     &lt;Source&gt;1&lt;/Source&gt;   &lt;/Authentication&gt; &lt;/Message&gt; </pre>	<pre> &lt;Message&gt;   &lt;Response&gt;     &lt;Reference&gt;       &lt;Guid&gt;405AEVTTFL3PA91&lt;/Guid&gt;       &lt;TranDate&gt;05/12/2014&lt;/TranDate&gt;       &lt;TranTime&gt;19:08:22&lt;/TranTime&gt;     &lt;/Reference&gt;     &lt;Result&gt;       &lt;ResponseCode&gt;00&lt;/ResponseCode&gt;       &lt;ResponseText&gt;Record Updated&lt;/ResponseText&gt;     &lt;/Result&gt;   &lt;/Response&gt;   &lt;Authentication&gt;     &lt;Client&gt;73&lt;/Client&gt;     &lt;Source&gt;1&lt;/Source&gt;   &lt;/Authentication&gt; &lt;/Message&gt; </pre>

**StorageSafe Insert**

Requests that a StorageSafe "wallet" record be created along with records for the specified Account, Shipping, or Consumer data. Guides will be created for the transaction itself, the StorageSafe "wallet" record, and any individual Account, Shipping, or Consumer records included in the request.

Request	Response
<pre> &lt;Message&gt;   &lt;Request&gt;     &lt;Detail&gt;       &lt;TranType&gt;StorageSafe&lt;/TranType&gt;       &lt;TranAction&gt;Insert&lt;/TranAction&gt;     &lt;/Detail&gt;     &lt;Account&gt;       &lt;Expiration&gt;1215&lt;/Expiration&gt;       &lt;Pan&gt;4111111111111111&lt;/Pan&gt;       &lt;Postal&gt;12345&lt;/Postal&gt;     &lt;/Account&gt;     &lt;Shipping&gt;       &lt;FirstName&gt;Tom&lt;/FirstName&gt;       &lt;LastName&gt;Grant&lt;/LastName&gt;       &lt;Address&gt;123 My Street&lt;/Address&gt;       &lt;City&gt;Chester&lt;/City&gt;       &lt;Region&gt;VA&lt;/Region&gt;       &lt;Postal&gt;12345&lt;/Postal&gt;     &lt;/Shipping&gt;   &lt;/Request&gt;   &lt;Authentication&gt;     &lt;Client&gt;73&lt;/Client&gt;     &lt;Source&gt;1&lt;/Source&gt;   &lt;/Authentication&gt; &lt;/Message&gt; </pre>	<pre> &lt;Message&gt;   &lt;Response&gt;     &lt;Reference&gt;       &lt;Guid&gt;3VTMQJYPFL1XM08&lt;/Guid&gt;       &lt;TranDate&gt;05/09/2014&lt;/TranDate&gt;       &lt;TranTime&gt;20:10:31&lt;/TranTime&gt;     &lt;/Reference&gt;     &lt;Result&gt;       &lt;ResponseCode&gt;00&lt;/ResponseCode&gt;       &lt;ResponseText&gt;Record       Inserted&lt;/ResponseText&gt;     &lt;/Result&gt;     &lt;StorageSafe&gt;       &lt;Guid&gt;3VTMQJPYG65BA2A&lt;/Guid&gt;     &lt;/StorageSafe&gt;     &lt;Account&gt;       &lt;Guid&gt;3VTMQJPYG6VTZ2B&lt;/Guid&gt;     &lt;/Account&gt;     &lt;Shipping&gt;       &lt;Guid&gt;3VTMQJPYG6BT82W&lt;/Guid&gt;     &lt;/Shipping&gt;   &lt;/Response&gt;   &lt;Authentication&gt;     &lt;Client&gt;73&lt;/Client&gt;     &lt;Source&gt;1&lt;/Source&gt;   &lt;/Authentication&gt; &lt;/Message&gt; </pre>

**StorageSafe Update**

Requests that the record associated with the specified Account, Shipping, or Consumer Guid be updated with the new information provided in the request.

Request	Response
<pre> &lt;Message&gt;   &lt;Request&gt;     &lt;Detail&gt;       &lt;TranType&gt;StorageSafe&lt;/TranType&gt;       &lt;TranAction&gt;Update&lt;/TranAction&gt;     &lt;/Detail&gt;     &lt;StorageSafe&gt;       &lt;Guid&gt;3VTMQJPYG65BA2A&lt;/Guid&gt;     &lt;/StorageSafe&gt;     &lt;Account&gt;       &lt;Expiration&gt;0716&lt;/Expiration&gt;       &lt;Guid&gt;3VTMQJPYG6VTZ2B&lt;/Guid&gt;     &lt;/Account&gt;   &lt;/Request&gt;   &lt;Authentication&gt;     &lt;Client&gt;73&lt;/Client&gt;     &lt;Source&gt;1&lt;/Source&gt;   &lt;/Authentication&gt; &lt;/Message&gt; </pre>	<pre> &lt;Message&gt;   &lt;Response&gt;     &lt;Reference&gt;       &lt;Guid&gt;404N68A3FKV2KUD&lt;/Guid&gt;       &lt;TranDate&gt;05/12/2014&lt;/TranDate&gt;       &lt;TranTime&gt;13:31:33&lt;/TranTime&gt;     &lt;/Reference&gt;     &lt;Result&gt;       &lt;ResponseCode&gt;00&lt;/ResponseCode&gt;       &lt;ResponseText&gt;Record         Updated&lt;/ResponseText&gt;     &lt;/Result&gt;   &lt;/Response&gt;   &lt;Authentication&gt;     &lt;Client&gt;73&lt;/Client&gt;     &lt;Source&gt;1&lt;/Source&gt;   &lt;/Authentication&gt; &lt;/Message&gt; </pre>