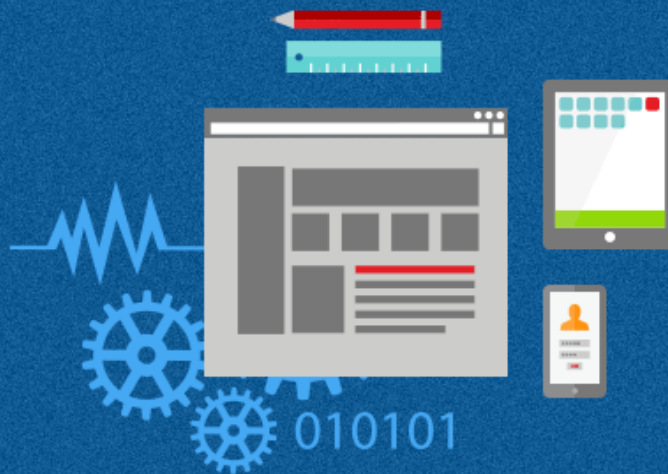Sabre Travel Network
Sabre *Schedule Change* API User Guide
Edition 1.1
July 02, 2019

Document Edition 1.1 updated 7/17/2019 4:06 PM

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1.1   Overview

A new API has been developed to deliver the functionality of the Sabre *Schedule Change* product. This API provides a quick and easy way for Sabre users to ***perform an even exchange transaction*** after processing a planned airline schedule change.

The Schedule Change API will copy all the fare and tax details from the old ticket and automatically transfer those details to the new ticket. Additionally, the following elements will be added to the ticket resulting from the schedule change exchange:

-   "SKCHG" at the beginning of the endorsement field
-   "S-" at the beginning of the fare calculation line to indicate an involuntary exchange

In addition, the API will allow the service request and response to optionally add a tour code, additional endorsement text and commission in order to comply with specific airline instructions or agency needs.

If you do not wish to the resulting ticket to have "SKCHG" at the beginning of the endorsement field and "S-" at the beginning of the fare calculation line, then this API should not be used. In these cases, an alternate method to perform the exchange transaction should be used.

This API service can be used by XML based web sites, online travel agencies, travel agency internal API's, and mobile applications.

This product is available as a new operation within an existing service, TKT_ExchangeRefundRQ version 1.2.0, using ExchangeRQ. An enhancement to support waiver codes used by agencies reporting to Airline Reporting Corporation (ARC) was added in 1.4.0. Therefore it is recommended that agents reporting to ARC start with or upgrade to version 1.4.0.

The details of the new operation's process will be described in following sections.

Note   To process a planned airline schedule change, the travel agency modifies the PNR to accept the new itinerary, and advise the airline that the new flight information has been communicated to the passenger and remove the old flight information. The API described in this document does not perform this process, but rather performs an even exchange transaction after that process has been completed.

1.2   Purpose of this Guide

The purpose of this guide is to introduce the Sabre *Schedule Change* API. It is not a complete reference tool for XML API design. Developers should refer to the Sabre Dev Studio for the most complete information. You can find instructions on how to access the Sabre Dev Studio in section 1.5   of this guide.

This guide provides:

•   A description of the API's features

- Examples of typical planned airline schedule change scenarios and associated even exchange ticketing transactions

- Examples of requests and responses for Sabre *Schedule Change* even exchange transactions

- Common error messages that may be returned by the service along with the explanation as to why they occur and ways for fixing the problem where applicable

1.3   XML Examples in this Document

The purpose of the XML examples provided in this document is to present possible content of the request and response.

Note: Examples are for illustrative purposes only.

1.4   Access Conditions

The Sabre *Schedule Change* API is a billable product. For additional information or to request activation, please contact your Sabre Account Director.

The following applies:

- Access is based on Employee Profile Record (EPR).
- All EPR groups should be auto provisioned with the required OpenSystemUser attribute and no additional security provisioning is required.

1.5   Sabre Dev Studio

The repository for all Sabre API information can be found at Sabre Dev Studio.

Here you can find documentation including schemas, WSDL files, code samples, workflows, and Sabre API related information.

Sabre Dev Studio is the most comprehensive reference tool available for XML developers.

Please visit the site and register for an account if you have not done so already.

1.6   Schedule Change WSDL file

The WSDL file provides basic structure of XML API requests – how the API can be called, what parameters it expects, and what data structures it returns.

For the latest available links to WSDL files, check the Schedule Change documentation on the Sabre Dev Studio.

Understanding the Sabre *Schedule Change* API

<div style="text-align: right; font-size: 3em;">*2*</div>

2.1 Introduction

This chapter provides a description of the Sabre *Schedule Change* API for even exchange transactions. It provides information about types of transactions that the service supports, prerequisites and the Schedule Change process.

This API adds new functionality to the TKT_RefundExchange XML schema already published on Sabre Dev Studios. To utilize the Sabre Schedule Change API, you must use TKT_RefundExchange version 1.2.0 or higher.

2.2 Prerequisites

Following are the prerequisites for using the Sabre *Schedule Change* API:

*   Sabre *Schedule Change* must be active for the market in which the subscriber operates

*   Sabre *Schedule Change* must be activated for the subscriber's PCC - the subscriber must have the SCFP TJR setting activated by the Sabre Help Desk

*   Have a client to consume the API, either Sabre Red Workspace or one that has been developed for your agency

*   Have downloaded all the necessary files from Sabre Dev Studio

2.3 Requirements

The following information provides the rules and applicability of Sabre *Schedule Change*.

2.3.1 Eligible Documents

The Sabre *Schedule Change* API can be used for performing even exchanges for tickets which meet the following criteria:

*   The ticket must be an original issue electronic ticket or a previously exchanged electronic ticket

*   The ticket must be in both the Sabre ticket database and the airline carrier's ticket database

*   The ticket must have at least one coupon with OPEN or ACTL status and available for exchange

The Sabre *Schedule Change* API may not be used for:

*   Paper tickets

*   Net remit tickets

2.3.2 The Sabre Schedule Change Even Exchange Process

This section provides a brief description of the Schedule Change process.

2.3.2.1 Schedule Change API High Level Workflow

The following is a brief description of the Sabre *Schedule Change* API workflow:

- The API client makes a request call which includes the minimum elements to fulfill the request, and any additional optional elements.

- The system will perform validations to determine if the existing ticket is exchangeable and if successful, the new ticket document will be created in the same manner as all other tickets created within Sabre. The ticket will be simultaneously transmitted to the airline carrier(s) involved in the ticketed itinerary. The new ticket will include all the fare and tax details from the old ticket, as well as "SKCHG" first in the endorsement, and "S-" preceding the original ticket fare calculation.

  The exchange transaction is treated like any other even exchange transaction and the data will be sent to the settlement plan, the PNR will be updated. Optionally, based on TJR settings the PNR may be ended, ended and retrieved or not ended at all.

- For version 1.4.0 and higher, a reference Price Quote Reissue (PQR) will be added to the PNR. The data included in the reference PQR **will not** be returned in the Schedule Change API response payload. However, you may retrieve the PQR using Sabre's Price Quote Services API.

  If for any reason the creation of the new ticket is successful, but the PQR creation fails, you will receive the following in your response (XPath = ExchangeRS/TransactionInfo/Message)
  `SCHEDULE CHANGE PROCESSED – NO PQR CREATED`

- The API response will include a response element to indicate that the transaction was successful.

- If any errors are detected at any point, the process will be interrupted and the appropriate error message returned in the response.

Sabre *Schedule Change* API Request 3

3.1 Introduction

The purpose of this chapter is to briefly explain the content of the ExchangeRefundRQ/RS XML schema as it pertains to Sabre *Schedule Change* API functionality.

This chapter should not be treated as complete information about the ExchangeRefundRQ/RS XML schema, but can be used as additional source of information for the ExchangeRQ definition available in the Sabre DEV Studio.

There are items in the TKT_ExchangeRefundRQ XML schema not used for schedule change even exchanges. This guide only covers those items applicable to ExchangeRQ.

3.2 Request Attributes

Following is the request attribute for ExchangeRQ:

Attribute	Description	Schedule Change Path
Exchange RQ version	Required in the XML schema.	*ExchangeRQ/@version*

3.3 Request Elements

Following are the top level request elements:

Element	Description	Schedule Change Path
Header	Standard header information that helps orchestrate the requests	*ExchangeRQ/Header*
POS	Information about the point of sale and the agent performing the Schedule Change transaction	*ExchangeRQ/POS*
TransactionInfo	Information about the ticket to be exchanged	*ExchangeRQ/TransactionInfo*
Options	Up to 5 optional elements may be included in ExchangeRQ	*ExchangeRQ/TransactionInfo/Options*

The POS element and the TransactionInfo element are detailed in the following sub sections:

3.3.1   POS Elements

Following is the list of elements identifying the Point of Sale in a Schedule Change even exchange transaction. They are optional in the XML schema; however, their presence is verified by the service business validation layer. Although optional elements, the Company and Pseudo elements are required for Schedule Change even exchange transactions.

Element	Description	Example	Schedule Change Path
Company	The IATA id assigned code of the GDS - it will be one of the three following codes: 1S for Sabre 1B for Sabre APAC 1F for INFINI	1S	*ExchangeRQ/POS/Company*
Pseudo	Four-digit home pseudo city of the agent	A4S1	*ExchangeRQ/POS/Pseudo*

3.3.1.1   Number of the Ticketing Document

The ticketing document number is the only required element. It can be in the request as the actual 13 digit ticket number or by the ticket reference number in the PNR.

Element	Description	Example	Schedule Change Path
TicketingDocument/ Number	13 digit document number to be exchanged	1003675888763	*ExchangeRQ/TransactionInfo /TicketingDocument/Number*
TicketingDocument	1-2 digit document reference number from the PNR to be exchanged	2	*ExchangedRQ/TransactionInfo/P NR/TicketReference*

3.3.1.2   Options

The Options elements allow the user to include secondary information in the request that is important for proper construction of the new ticket, per airline or agency requirements. Multiple options can be added in a single request, but each option can only be present once per request.

- o PNRSelect
  - o Name
  - o Segment
- o TourCode
- o Commission
- o Endorsement
- o WaiverCode

Element	Description	Example	Schedule Change Path
`<PNRSelect/>` `<Name/>`	Name number from the PNR. Used once per RQ.	1.1	*ExchangeRQ/TransactionInfo /Options/PNRSelect/Name*
`<PNRSelect/>` `<Segment/>`	Segment number from the PNR. Element is used for each segment. Used 1-16 times in single RQ.	1	*ExchangeRQ/TransactionInfo /Options/PNRSelect/Segment*
`<Commission/>`	Amount of commission. Used once per RQ	10.00	*ExchangeRQ/TransactionInfo /Options/Commission*
`<TourCode/>`	A tour code to be applied to the schedule change even exchange. Used once per RQ.	TRAC345	*ExchangeRQ/TransactionInfo /Options/TourCode*
`<Endorsement/>`	An Endorsement to be applied after "SKCHG" and before the endorsement from the original ticket. Used once per RQ.	/Free Text	*ExchangeRQ/TransactionInfo /Options/Endorsement*
`<WaiverCode/>`	Used when the airline has requested that an ARC agency include waiver data with tickets resulting from Schedule Change Even Exchanges.	Free text, up to 20 alphanumeric characters including slash (/), asterisk (*), dash (-) and comma (,)	*ExchangeRQ/TransactionInfo/Options/WaiverCode*

- **PNRSelect:**
    - **Name** - When only one person is in the PNR, the PNRSelect/Name option is not necessary. When more than one person is in the PNR, the PNRSelect/Name option is *required*.

    - **Segment Select** – Segment Select only needs to be used if, when the original ticket was issued, segment selection was used to ticket only certain flight segments in the PNR (and the other flight segments in the PNR were issued on a different ticket).

      In these cases, the segment options should be used to reference the proper segments needing to be exchanged, which may or may not be the same segment numbers as the segments that were selected when the original ticket was issued.

- **Commission Amount** – The commission option may be used in the request, however this should only be done if instructed by the carrier to do so. An agency could receive a debit memo if commission is entered on an even exchange transaction, without permission

- For ARC locations, the commission amount from the original ticket will automatically be used in processing the exchange (unless a new commission amount is requested as part of the fulfillment request). This is to ensure that ARC's unique reconciliation process is not disrupted.

- For BSP and other settlement plan locations, the commission amount on the exchange ticket will default to zero.

- Note that certain markets do not support commission amount. If a commission amount is used when it is not supported an error response will be returned.

- **Tour Code** – If a tour code exists on the original ticket, it will be automatically carried over to the new ticket resulting from the Schedule Change even exchange, however, a new tour code may be requested as part of the fulfillment request. If a new tour code is included in the request, it will replace the tour code from the original ticket when the new ticket is constructed.

  The only exception would be if the original ticket is a CAT 35 Net/Selling type of fare with a tour code. In this case, the tour code for these types of fares cannot be replaced. If a CAT 35 fare has an existing tour code on the original ticket, and a new tour code is requested in the Fulfillment request, the new tour code will be ignored and the original CAT 35 tour code will appear on the new ticket that results from the Schedule Change even exchange.

- **Endorsement –** Additional optional endorsement data can be included in the request. This optional endorsement will appear on the new ticket after the automatic addition of "SKCHG", but before any endorsements from the original ticket being exchanged.

  It is strongly recommended that users activate the LRGEND TJR option prior to using the Sabre *Schedule Change* API. Doing so expands the endorsement area of the ticket to 999 characters.

- **Waiver Code -** Used by ARC agencies when the airline has requested that the agent include waiver data with the ticket resulting from the Schedule Change even exchange. This is equivalent to #WV in the Sabre green screen.

  Note: Waiver data is transmitted to the airline behind the scenes, it will not appear on the ticket resulting from the Schedule Change even exchange, nor will it be present in the ExchangeRS response XML payload. However, it will appear in the PQR which is automatically created when the new ticket is issued.

3.4 Sabre *Schedule Change* API Request Examples

This section contains schedule change even exchange examples, including examples showing the options from section 3.3.2.2. The Sabre host view of the tickets to be exchanged are supplied for reference:

3.4.1 Example Request to Fulfill a Basic Schedule Change Even Exchange with No Additional Options

Ticket to be exchanged:

```
SABRE TICKET RECORD
INV:0034805                                          PNR:XPLFMS
TKT:7951053984868    ISSUED:14DEC2016SYD PCC:A4S1 IATA:99999992
NAME:HARRIS/ROLF
FOP:VIXXXXXXXXXXXX1111*XXXX/556    M
CPN A/L  FLT  CLS DATE    BRDOFF  TIME  ST F/B           STAT
1   VA   943  V  20FEB   SYDBNE  1300  OK VZEV0          OPEN
2   VA   950  V  25FEB   BNESYD  1305  OK VZEV0          OPEN


FARE   AUD360.38 TAX  39.82UO  TAX  7.50WG  TAX  30.30QR
TOTAL   AUD438.00


COMM: 36.04


SYD VA BNE180.19VA SYD180.19AUD360.38END


ENDORSEMENT/RESTRICTION:
NONREF/RESTRICTIONS APPLY/NONEND/PENALTIES APPLY
```

XML to request to fulfill an even exchange (due to a planned airline schedule change) of this ticket:

```xml
<ExchangeRQ version="1.2.0"
xmlns="http://www.sabre.com/ns/Ticketing/ExchangeRefund/1.0"
          xmlns:STL="http://services.sabre.com/STL/v01"
          xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
          xsi:schemaLocation="http://www.sabre.com/ns/Ticketing/ExchangeRefund/1.0
">
    <POS>
        <STL:Company>1S</STL:Company>
        <STL:Pseudo>WD40</STL:Pseudo>
    </POS>
<TransactionInfo>
    <PNR>
      <TicketReference>3</TicketReference>
    </PNR>
    <Options>
      <PNRSelect>
        <Segment>1</Segment>
      </PNRSelect>
    </Options>
   </TransactionInfo>
</ExchangeRQ>
```

3.4.2 Example Request to Fulfill a Schedule Change Even Exchange with Additional Options

The following is the request to fulfill an even exchange (due to a planned airline schedule change) of a ticket this time with options.

Below is the Sabre host presentation of the ticket being exchanged.

```
WTDB*2«
SABRE TICKET RECORD
INV:3232591          CUST:1234567890                PNR:WHGBVX
TKT:0577921640907    ISSUED:05JUN2017MKE PCC:WD40 IATA:52812874
NAME:KENNEDY/HENRY
FOP:CASH
CPN  A/L  FLT  CLS DATE   BRDOFF  TIME  ST F/B          STAT
1    AF   1581  Y  23JUL  LHRCDG  1150A OK Y3WK0GB9      EXCH
2    AF   1780  Y  30JUL  CDGLHR  125P  OK Y3WK0GB9      EXCH


FARE   GBP508.00 TAX  16.70GB  TAX  31.80UB  TAX  19.30FR
          TAX  14.10QX  TAX  1.30IZ
TOTAL  USD737.20              EQUIV FARE PD   USD654.00


COMM: 1.11


REFUND/CHANGE/RESTRICTIONS APPLY
LON AF PAR309.86AF LON309.86NUC619.72END ROE0.819712
```

Below is the API request for the Schedule Change even exchange transaction.

```
<ExchangeRQ version="1.0.0"
xmlns="http://www.sabre.com/ns/Ticketing/ExchangeRefund/1.0"
        xmlns:STL="http://services.sabre.com/STL/v01"
        xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
        xsi:schemaLocation="http://www.sabre.com/ns/Ticketing/ExchangeRefund/1.0
">
    <POS>
        <Company>1S</Company>
        <Pseudo>WD40</Pseudo>
    <POS>
    <TransactionInfo>
        <PNR>
            <TicketReference>2<TicketReference>
        <PNR>
        <Options>
            <Commission>2.22<Commission>
            <PNRSelect>
                <Name>1.1<Name>
                <Segment>1<Segment>
                <Segment>2<Segment>
            <PNRSelect>
            <TourCode>ABC123<TourCode>
            <Endorsement>/SPECIAL ENDORSEMENT<Endorsement>
        <Options>
    <TransactionInfo>
</ExchangeRQ>
```

3.4.2.1 Example Request to Fufill a Schedule Change Even Exchange Including Waiver Code

Including a waiver code is valid for ARC agencies only, using TKT_ExchangeRefund version 1.4.0 and higher.

Below is the Sabre host presentation of the ticket being exchanged.

```
WTDB*T0577245739029«
SABRE TICKET RECORD
INV:0093299          CUST:1234567891                    PNR:QUETHP
TKT:0577245739029    ISSUED:01JUL2019SNA PCC:X1X1 IATA:05656565
NAME:SMITH/JANE
FOP:CASH
CPN  A/L  FLT  CLS DATE   BRDOFF  TIME  ST F/B            STAT
1    AF   1723  Y  25JUL  MUCCDG  1225P OK Y3WKWDE9       OPEN
2    AF   1280  Y  25JUL  CDGLHR  400P  OK Y3WKWDE9       OPEN


FARE   EUR654.00 TAX  13.60YQ  TAX  8.50DE  TAX  25.30RA
         TAX  8.40OY  TAX  5.30FR  TAX  12.80QX
TOTAL  USD816.90              EQUIV FARE PD   USD743.00


COMM: .00


MUC AF X/PAR AF LON736.23NUC736.23END ROE0.888299


ENDORSEMENT/RESTRICTION:
NONREF / NO CHANGE
```

Below is the Schedule Change API XML request for an ARC agency, using the `<WaiverCode/>` element and the characters "ABC123".

Note: the waiver code *will not* be seen in the Schedule Change API XML **response**.

```xml
<?xml version="1.0" encoding="UTF-8"?>
<SOAP-ENV:Envelope
xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
<SOAP-ENV:Header>
  <ns1:MessageHeader
  ns1:version=""
  xmlns:ns1="http://www.ebxml.org/namespaces/messageHeader">
  <ns1:From>
   <ns1:PartyId>999999</ns1:PartyId>
```

```
        </ns1:From>
    <ns1:To>
     <ns1:PartyId>123123</ns1:PartyId>
    </ns1:To>
    <ns1:CPAId>AAS</ns1:CPAId>
    <ns1:ConversationId>SYSTEM-T2DAILY-SYSTEM</ns1:ConversationId>
    <ns1:Service>TKT_ExchangeRefundRQ</ns1:Service>
    <ns1:Action>TKT_ExchangeRefundRQ</ns1:Action>
    <ns1:MessageData>
     <ns1:MessageId>1000</ns1:MessageId>
     <ns1:Timestamp>2010-10-16</ns1:Timestamp>
    </ns1:MessageData>
   </ns1:MessageHeader>
   <ns1:Security
    xmlns:ns1="http://schemas.xmlsoap.org/ws/2002/12/secext">
    <ns1:BinarySecurityToken>Shared/IDL:IceSess\/SessMgr:1\.0.IDL/Common/!ICESMS\/STSB!
ICESMSLB\/STS.LB!-3000701776762487669!1579193!0</ns1:BinarySecurityToken>
   </ns1:Security>
</SOAP-ENV:Header>
<SOAP-ENV:Body>
   <ExchangeRQ
    version="1.4.0"
      xmlns="http://www.sabre.com/ns/Ticketing/ExchangeRefund/1.0">
    <POS>
     <ns1:Company
      xmlns:ns1="http://www.sabre.com/ns/Ticketing/TTL/1.0">1S</ns1:Company>
     <ns2:Pseudo
xmlns:ns2="http://www.sabre.com/ns/Ticketing/TTL/1.0">X1X1</ns2:Pseudo>
    </POS>
    <TransactionInfo>
     <TicketingDocument>
      <Number>0577245739029</Number>
     </TicketingDocument>
     <Options>
      <WaiverCode>ABC123</WaiverCode>
     </Options>
    </TransactionInfo>
   </ExchangeRQ>
```

```
</SOAP-ENV:Body>

</SOAP-ENV:Envelope>
```

Sabre *Schedule Change* API Response

4

4.1 Introduction

This section describes business specifics of the Schedule Change even exchange response. It is not intended to supply information of all the elements and attributes. For complete information, please refer to schema documentation in Sabre Dev Studio. Examples of responses are include in the scenarios in section 4.3.2.

The Schedule Change response consists of the following attributes and elements.

4.2 Response Attribute

Attribute	Description	Schedule Change Path
ExchangeRS version	Required in the XML schema?	ExchangeRS/@version

4.3 Response Elements

Element	Description	Schedule Change Path
Header	Information indicating the result of the service call, orchestration and transaction identifiers, errors, and warnings.	*ExchangeRS/Header*
TransactionInfo	Contains the text of the message and a message type attribute	ExchangeRS/TranscationInfo

4.3.1 Header

Apart from the message ID and orchestration and transaction identifier the header also contains a Results element which contains business messages warnings and errors.

Element	Description	Schedule Change Path
Orchestration ID	Information indicating the result of the service call, orchestration and transaction identifiers, errors, and warnings.	*ExchangeRS/Header/*Orchestration ID
Results	Success, Warnings and Errors	*ExchangeRS/Header/Results*

4.3.2   Results elements

The results element has two elements that contain the success of the transaction as well warning or errors. The success and Error elements are mutually exclusive, i.e. you can only have one of them in a response, not both.

Element	Description	Schedule Change Path
Success	Contains elements identifying the source (ExchangeServices) and the system (T2). The success element will be present if the exchange request has been successful	*ExchangeRS/Header/Results/Success*
Error	Contains elements identifying the source (ExchangeServices) and the system (T2) as well as an element containing the error message texts. The error element will be present if an error condition has been encountered and the exchange transaction has not been successful.	*ExchangeRS/Header/Results/Error*

```
<ExchangeRS xmlns:ns2="http://www.sabre.com/ns/Ticketing/ExchangeRefund/1.0"
                 xmlns="http://services.sabre.com/STL/v01"
                 version="1.2.0">
     <Header messageID="TKTHLI700-25800-1014271083-1496438538320-3082-arex"
timeStamp="2017-06-02T16:22:00.000">
          <OrchestrationID seq="0">TKTHLI700-25800-1014271083-1496438538320-3082-
arex</OrchestrationID>
          <Results>
               <Success>
                    <System>TKT-DS</System>
                    <Source>AREX</Source>
               </Success>
          </Results>
     <Header>
     <TransactionInfo reservationAutoEndProcessed="false"
reservationAutoRetrieveProcessed="false">
```

4.3.2.1 Error elements

The error elements will contain the SystemSpecificResults element that provides information about the warning or error. This element has a number of sub elements. Only the following are used for Schedule Change:

Element	Description	Example	Schedule Change Path
ErrorMessage	Contains the text of the message and a message code attribute	COUPONS NOT QUALIFY FOR EXCHANGE	ExchangeRS */Header/Results/Error/System SpecificResults/ErrorMessage*

Element	Description	Example	Schedule Change Path
ShortText	Contains text which identifies the category of the error.	Decimal Check Validation	ExchangeRS ExchangeRS */Header/Results/ Error/SystemSpecificResults/S hortText*

ErrorMessage Attribute

The ErrorMessage element has one attribute to uniquely identify the warning or error.

Attribute	Description	Schedule Change Path
code	Unique code of the error or warning message.	ExchangeRS */Header/Results/Error/SystemSpecificResults/Err orMessage@code*

A table with possible error messages and codes is given in section 5.2

Examples of error responses is provided in section 5.3

TransactionInfo elements

Element	Description	Examples	Schedule Change Path
Message	These transaction messages will only be present when the exchange has been processed.	OK 1860.88 ETR EXCHANGE PROCESSED OK 6.6	*ExchangeRS/TransactionInfo/ Message*

Attribute	Description	Schedule Change Path
type	Type of message. For Schedule Change, this will always be "I" for information.	*ExchangeRS/TransactionInfo/Message@type*

Troubleshooting

5

5.1 Introduction

This section provides a list of error messages and their causes as well as examples of some of them.

There are a few steps that the Sabre *Schedule Change* API makes during transaction processing and, on each of these steps, an error message will be returned if the system detects the problem.

These steps are:

•   Determine that a PNR is present in the user's Sabre session

•   Determine if a hardcopy printer and ticket printer have been designated

•   Validation that the ticket number in the RQ exists both in the airline carrier's database and the Sabre Ticket Database

•   Verifying that the electronic ticket coupons being exchanged are eligible for ticketing

•   Verifying that no more than 16 air segments are being presented for ticketing

•   Validation that the default currency of the user attempting the exchange transaction matches the currency that the original ticket was issued in

•   Validation that only air segments are being presented for ticketing

•   Validation that only one passenger in the PNR is being presented for ticketing

•   EPR check for NONAMX

•   Check for CAT35 fare and subsequent logic for tour code behavior

•   Determine if the TJR option LRGEND is on or off for correct endorsement behavior

5.2 List of Error Messages

If the system is unable to process the even exchange transaction for any reason, the background processes will stop and an error message will be returned in the API response.

The following table contains error messages that can be returned during an exchange request originating from the Sabre *Schedule Change* API.

Code	Message	Category/Short Message	Condition/Comment
N/A	SCHEDULE CHANGE PROCESSED – NO PQR CREATED	N/A	This is not actually an error, but a notification that the new ticket was issued, but the PQR creation failed. Check your RQ to ensure that the input supplied in the optional elements of the <ExchangeRQ/> are within the data parameters. Refer to section 3.3 of this guide and/or the annotation in the schema itself if you are unsure.
21280	Invalid request: XML request validation failed	Please amend your request and try again.	The XML request contains allowed elements, but the data sent with 1 or more elements exceeds the parameters for that element (e.g. using too many or disallowed characters in the <WaiverCode/> element). Refer to section 3.3 of this guide and/or the annotation in the schema itself if you are unsure about the parameters for a particular element.
49000	AREX WS Generic Error	N/A	Unable to detokenize CC number
			Exception while unmarshalling GetTickdtingDocumentRS
49001	AREX WS Timeout received when calling TktDoc service	N/A	This message is returned when a call made to the TktDoc service to retrieve the document and no answer is received
49007	Schedule Change not available this country	Market Configuration Validation	Schedule Change has not been activated for your point of sale country
49005	Schedule Change not active	Market Configuration Validation	Schedule Change indicator is not active in the TJR for the agency PCC
49100	AREX WS Validation Error	Exchange Business Validation	No documents to found
		Decimal Check Validation	Decimal places of ticket being exchanged does not match agency default decimal setting
		Request Validation	RQ is missing required elements
49101	POS/Company is a required element of the request	Request Validation	No POS/Company specified in request
49104	POS/Pseudo is required element of the request	Request Validation	No POS/Pseudo specified in request
49106	Verify coupon status	Exchange Business Validation	No coupon with open status in the ticket
49112	Invalid PNR selection Criteria	Exchange Business Validation	Not all air segments in RQ are actually air segments
49113	Net Remit Fares not allowed	Exchange Business Validation	Tickets issued with Net Remit Fares are not allowed

Code	Message	Category/Short Message	Condition/Comment
N/A	SCHEDULE CHANGE PROCESSED – NO PQR CREATED	N/A	This is not actually an error, but a notification that the new ticket was issued, but the PQR creation failed. Check your RQ to ensure that the input supplied in the optional elements of the <ExchangeRQ/> are within the data parameters. Refer to section 3.3 of this guide and/or the annotation in the schema itself if you are unsure.
21280	Invalid request: XML request validation failed	Please amend your request and try again.	The XML request contains allowed elements, but the data sent with 1 or more elements exceeds the parameters for that element (e.g. using too many or disallowed characters in the <WaiverCode/> element). Refer to section 3.3 of this guide and/or the annotation in the schema itself if you are unsure about the parameters for a particular element.
49114	Duty code not allowed	Exchange Business Validation	The EPR of the Sabre session is not signed in with the correct duty code of "*" or "9"
49200	AREX WS TKTDOC validation error	Document Validation	Error in TktDoc response
		Document Validation	Unable to retrieve document from database
49202	Invalid ticketing document format in response from down-line system, try again	Document Validation	Ticketing document body is not valid.
49204	Ticket/Document not found in Airline Database	Document Validation	Ticketing document is not in the database
49300	AREX WS T2HUB validation Error	E-Ticket Validation	Unable to retrieve e-ticket from validating carrier
		E-Ticket Validation	XPathExpressionException while validating Hub response
49300	Internal TKTHUB WS Connector error Timeout during waiting on NMR response Error occurred during internal to EDIFACT conversion	E-Ticket Validation	Hub response returns an error
49301	Retrieving e-ticket from validating carrier failed, try again	E-Ticket Validation	Hub response is not valid xml

Code	Message	Category/Short Message	Condition/Comment
N/A	SCHEDULE CHANGE PROCESSED – NO PQR CREATED	N/A	This is not actually an error, but a notification that the new ticket was issued, but the PQR creation failed. Check your RQ to ensure that the input supplied in the optional elements of the <ExchangeRQ/> are within the data parameters. Refer to section 3.3 of this guide and/or the annotation in the schema itself if you are unsure.
21280	Invalid request: XML request validation failed	Please amend your request and try again.	The XML request contains allowed elements, but the data sent with 1 or more elements exceeds the parameters for that element (e.g. using too many or disallowed characters in the <WaiverCode/> element). Refer to section 3.3 of this guide and/or the annotation in the schema itself if you are unsure about the parameters for a particular element.
49302	Invalid e-ticket format in response from down-line system, try again	E-Ticket Validation	Hub response is null
49303	E-Ticket not found in validating carrier database	E-Ticket Validation	Ticket Not found in Carrier Database
49801	PSS returned an error while fulfilling the exchange	N/A	Time out or other issue between T2 and PSS
Xxxxx	Place holder	Place holder	Insert example of ExchangeRQ with <WaiverCode/> element, but wrong input parameters: blank (no data), more than 20 characters, use of non-Sabre special characters.

5.3   Example of Error Responses

This section provides a number of example requests and responses when an error conditions is present.

In the response the message is included in the *Header/Results/Error/SystemSpecificResults/ErrorMessage* element.

The message code is in the *Header/Results/Error/SystemSpecificResults/ErrorMessage@code* attribute.

The Category is included in the *Header/Results/Error/SystemSpecificResults/ShortText* element.

This section does not cover all possible error conditions/responses.

5.3.1   USG Authentication Errors

This type of error is returned when authorization to access the API fails for user.

5.3.1.1 Security Violations

5.3.1.1.1 No Branch Access

Error:

```
<ExchangeRS xmlns:ns2="http://www.sabre.com/ns/Ticketing/ExchangeRefund/1.0"
            xmlns="http://services.sabre.com/STL/v01"
            version="1.2.0">
    <Header messageID="TKTHLI701-7163-261092993-1496241492226-194-arex"
            timeStamp="2017-05-31T09:38:00.000">
        <OrchestrationID seq="0">TKTHLI701-7163-261092993-1496241492226-194-
arex</OrchestrationID>
        <Results>
      <Error status="NotProcessed" timeStamp="2017-05-31T09:38:16.748"
type="Application">
                <Source>AREX</Source>
                <System>TKT-DS</System>
                <SystemSpecificResults>
<STL:ErrorMessage code="21221">Security violation: Request for document 1391225159585
must be made by original or branch PCC</STL:ErrorMessage>
        <STL:ShortText>Security violation</STL:ShortText>
                </SystemSpecificResults>
            </Error>
        </Results>
    <Header>
    <TransactionInfo reservationAutoEndProcessed="false"
                     reservationAutoRetrieveProcessed="false">
        <Message type="E"> Security violation <Message>
    <TransactionInfo>
<ExchangeRS>
```

Reason:

User PCC does not have permission to retrieve from PCC provided in the search – security authorization failed.

Solution:

Verify if the values of search parameters fields are correct and if needed, amend them and try again. If you need additional assistance, use your provided Sabre API contacts. If you are unsure, contact your Sabre Account Director. Please remember to provide your user ID, domain, organization and the environment you use.

5.3.2 Timeout

Error:

```
<ExchangeRS xmlns:ns2="http://www.sabre.com/ns/Ticketing/ExchangeRefund/1.0"
            xmlns="http://services.sabre.com/STL/v01"
            version="1.2.0">
    <Header messageID="TKTHLI701-7163-261092993-1496241492226-194-arex"
            timeStamp="2017-05-31T09:38:00.000">
        <OrchestrationID seq="0">TKTHLI701-7163-261092993-1496241492226-194-
arex</OrchestrationID>
        <Results>
            <Error status="NotProcessed" timeStamp="2017-05-31T09:38:16.748"
type="Application">
                <STL:Source>TktDoc</STL:Source>
```

```
        <STL:System>TKT-WS</STL:System>
        <STL:SystemSpecificResults>
         <STL:ErrorMessage>Downstream system did not respond within time limit:
Timeout while receive a message</STL:ErrorMessage>
         <STL:ShortText>Downstream system did not respond within time
limit</STL:ShortText>                    </SystemSpecificResults>
            </Error>
        </Results>
    <Header>
    <TransactionInfo reservationAutoEndProcessed="false"
                      reservationAutoRetrieveProcessed="false">
        <Message type="E"> Security violation <Message>
    <TransactionInfo>
<ExchangeRS>
```

Reason:

There are problems receiving a response from an internal Sabre systems.

Solution:

Wait for a few minutes and try again. If the problem still exists, contact the Sabre Dev Studio support team. If you are unsure, contact your Sabre Account Director.

5.3.3   Throttled Request/Response

In the event that there are too many requests for the system to handle, a user may experience a "throttled request/response".

Error:

```
<ExchangeRS xmlns:ns2="http://www.sabre.com/ns/Ticketing/ExchangeRefund/1.0"
                         xmlns="http://services.sabre.com/STL/v01"
                         version="1.2.0">
                    <Header>
                        <OrchestrationID seq="0">TKTHLI702-16241-13246280-
1496255121939-8-arex</OrchestrationID>
                        <Results>
                            <Error status="NotProcessed" timeStamp="2017-05-
31T13:25:28.247" type="Application">
                                <Source>AREX-PSS</Source>
                                <System>TKT-DS</System>
                                <SystemSpecificResults>
                                    <ErrorMessage code="49801">PSS returned an
error while fulfilling the exchange
                                    </ErrorMessage>
                                    <ShortText>ASSIGN HARDCOPY PRINTER FOR ETR
DOCUMENTS-USE PTR/</ShortText>
                                </SystemSpecificResults>
                            </Error>
                        </Results>
                    <Header>
                    <TransactionInfo reservationAutoEndProcessed="false"
                                 reservationAutoRetrieveProcessed="false">
                        <Message type="E">ASSIGN HARDCOPY PRINTER FOR ETR
DOCUMENTS-USE PTR/<Message>
                    <TransactionInfo>
```
Reason:

The service is at peak usage.

Solution:

Wait for a few minutes and try again. If the problem persists, contact the Sabre Dev Studio support team. If you are unsure, contact your Sabre Account Director.

5.3.4   Invalid service version

Error:

```
<ExchangeRS xmlns:ns2="http://www.sabre.com/ns/Ticketing/ExchangeRefund/1.0"
                  xmlns="http://services.sabre.com/STL/v01"
                  version="1.2.3">
        <Header messageID="TKTHLI702-16241-13246280-1496246905048-4-
arex"
                  timeStamp="2017-05-31T11:08:00.000">
            <OrchestrationID seq="0">TKTHLI702-16241-13246280-
1496246905048-4-arex</OrchestrationID>
            <Results>
                <Error status="NotProcessed" timeStamp="2017-05-
31T11:08:27.107" type="Application">
                    <Source>AREX</Source>
                    <System>TKT-DS</System>
                    <SystemSpecificResults>
                        <ErrorMessage code="21212">Invalid request:
Unsupported XML schema version
                        </ErrorMessage>
                        <ShortText>XML schema version 1.2.3 is not
supported</ShortText>
                    </SystemSpecificResults>
                </Error>
            </Results>
        <Header>
        <TransactionInfo reservationAutoEndProcessed="false"
                        reservationAutoRetrieveProcessed="false">
            <Message type="E">XML schema version 1.2.3 is not
supported<Message>
            <TransactionInfo>
        <ExchangeRS>
```

Reason:

The version specified in the TKT_ExchangeRefund request is not supported.

Solution:

Change the version to the latest version.

5.3.5   Invalid Request XML Format

5.3.5.1 Request XML Validation Failed Against Schema

Error:

```
<ExchangeRS xmlns:ns2="http://www.sabre.com/ns/Ticketing/ExchangeRefund/1.0"
                  xmlns="http://services.sabre.com/STL/v01"
                  version="1.2.0">
        <Header messageID="TKTHLI700-28874-1673535321-1492618185675-32-arex"
```

```
                timeStamp="2017-04-19T11:09:00.000">
            <OrchestrationID seq="0">TKTHLI700-28874-1673535321-1492618185675-32-
arex</OrchestrationID>
            <Results>
                <Error status="NotProcessed" timeStamp="2017-04-19T11:09:47.144"
type="Application">
                    <Source>AREX</Source>
                    <System>TKT-DS</System>
                    <SystemSpecificResults>
                        <ErrorMessage code="21208">Invalid request: XML request
validation failed</ErrorMessage>
                        <ShortText>Please amend your request and try
again.</ShortText>
                    </SystemSpecificResults>
                </Error>
            </Results>
        <Header>
        <TransactionInfo reservationAutoEndProcessed="false"
reservationAutoRetrieveProcessed="false">
            <Message type="E">Please amend your request and try again.<Message>
        <TransactionInfo>
    <ExchangeRS>
```

Reason:

The XML request sent doesn't match the <<xxx>> XSD schema. The parameters provided in the search are invalid.

Solution:

Verify XML request with the XSD schema version you used and correct it.

If you need additional assistance, use your provided Sabre Dev Stuido support contacts. If you are unsure, contact your Sabre Account Director.

5.3.6   Database Response: Not Found

Error:

```
    <ExchangeRS xmlns:ns2="http://www.sabre.com/ns/Ticketing/ExchangeRefund/1.0"
                xmlns="http://services.sabre.com/STL/v01"
                version="1.2.0">
        <Header messageID="TKTHLI700-28874-1673535321-1492618185675-32-arex"
                timeStamp="2017-04-19T11:09:00.000">
            <OrchestrationID seq="0">TKTHLI700-28874-1673535321-1492618185675-32-
arex</OrchestrationID>
            <Results>
                <Error status="NotProcessed" timeStamp="2017-04-19T11:09:47.144"
type="Application">
                    <Source>AREX</Source>
                    <System>TKT-DS</System>
                    <SystemSpecificResults>
                        <ErrorMessage code="49201">Retrieving ticketing document
failed, try again</ErrorMessage>
        <ShortText>TICKET/DOCUMENT NOT FOUND IN AIRLINE DATABASE</ShortText>
</SystemSpecificResults>
                </Error>
```

```
            </Results>
        <Header>
        <TransactionInfo reservationAutoEndProcessed="false"
reservationAutoRetrieveProcessed="false">
                <Message type="E"> TICKET/DOCUMENT NOT FOUND IN AIRLINE DATABASE
<Message>
        <TransactionInfo>
    <ExchangeRS>
```

Reason:

There is actually not an error, but a database response. The document requested was not found. The user may have entered an invalid PCC and document number combination in the search.

Solution:

Verify if the values of search parameters fields are correct and if needed, amend them and try again.

If you need additional assistance, use your provided Sabre Dev Studio support contacts. If you are unsure, contact your Sabre Account Director.

5.3.7   Hardcopy printer not assigned

A hardcopy printer needs to be assigned for the REN to be printed. If a printer is not assigned an error will be returned in the response to a Fulfill request:

Request:
```
<ExchangeRQ version="1.2.0"
xmlns="http://www.sabre.com/ns/Ticketing/ExchangeRefund/1.0"
            xmlns:STL="http://services.sabre.com/STL/v01"
            xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
            xsi:schemaLocation="http://www.sabre.com/ns/Ticketing/ExchangeRefund/1.0
">
    <POS>
        <STL:Company>1S</STL:Company>
        <STL:Pseudo>DR93</STL:Pseudo>
    </POS><TransactionInfo>
    <PNR>
      <TicketReference>3</TicketReference>
    </PNR>
    </TransactionInfo>
</ExchangeRQ>
```

Response:

The ShortText shows the origin of the error, and the ErrorMessage contains the code and the message. The actual PSS program is included in the Element.

```
    <ExchangeRS xmlns:ns2="http://www.sabre.com/ns/Ticketing/ExchangeRefund/1.0"
                        xmlns="http://services.sabre.com/STL/v01"
                        version="1.2.0">
                <Header>
                    <OrchestrationID seq="0">TKTHLI702-16241-13246280-
1496255121939-8-arex</OrchestrationID>
                    <Results>
                        <Error status="NotProcessed" timeStamp="2017-05-
31T13:25:28.247" type="Application">
                            <Source>AREX-PSS</Source>
```

```
                                    <System>TKT-DS</System>
                                    <SystemSpecificResults>
                                        <ErrorMessage code="49801">PSS returned an
error while fulfilling the exchange
                                        </ErrorMessage>
                                        <ShortText>ASSIGN HARDCOPY PRINTER FOR ETR
DOCUMENTS-USE PTR/</ShortText>
                                    </SystemSpecificResults>
                            </Error>
                        </Results>
                    <Header>
                    <TransactionInfo reservationAutoEndProcessed="false"
                                    reservationAutoRetrieveProcessed="false">
                        <Message type="E">ASSIGN HARDCOPY PRINTER FOR ETR
DOCUMENTS-USE PTR/<Message>
                            <TransactionInfo>
                    <ExchangeRS>
```