

Roadrunner Transportation Systems, Inc. Rate Quote

Web Service Developer's Guide Documentation Date: 11/08/2020

Rate Quote Web Service Interface

Rate Quote Web Service Overview

The rate quote web service assists customers in receiving a detailed quote of charges for shipping freight through Roadrunner Transportation Systems. Customers can rate up to 10 different classes at one time and also add various additional service options.

Authentication information is populated in the SOAP header. The header along with the quote request are sent over an SSL connection. The user receives a quote response element back. Errors are received back as SOAP faults.

The web service can be accessed at

<https://webservices.rrts.com/rating/ratequote.asmx>

Login information should be the same username/password used to login to the RRTS website.

If you do not currently have this information, you can register at

<https://freight.rrts.com/Pages/Register.aspx>

There are three service operations available. All three service operations return the same RateQuoteResponse schema:

- **RateQuote** – Determines rating based on main account assigned to the authenticated user.
- **RateQuoteByAccount** – Allows authenticated user to specify a sub-account number to use for rating. If the account number is not related to the user, rating will fail.
- **RateQuoteByAccountByTerminal** – Allows the user to specify an account number and a specific origin or destination terminal code.

Request Schema

The following tables contain the complex types found in the quote Requestschema. Each table consists of the following:

- 1) Element – The element name.
- 2) Description – Information describing the current element.
- 3) Rules – Element requirements and limitations.

Element	Request			
Description	The root element for a request.			
Rules	This element is required to request a quote			
Element Name	Type (Length	Required	Cardinality	Description and Rules

OriginZip	String(6)	Yes	1	Can contain 5 digit US zip code or 6 character Canadian postal code
DestinationZip	String(6)	Yes	1	Should contain either 5 digit US zip code or 6 character Canadian postal code
ShipmentDetails	Includes ActualClass & Weight	Yes	1..10	Container of shipment details. Can have up to 10 different shipment details in one transaction
OriginType	String(1)	Yes	1	Valid values are "O" for Shipper, "I" for Consignee, and "B" for Third Party
PaymentType	String(1)	Yes	1	Should contain either "P" for Prepaid or "C" for Collect

PalletCount	String	No	0..1	If customer has pallet rating, must supply 0 or greater pallets. Can leave blank if no pallet rating
LinearFeet	String	No	0..1	If customer has linear ft rating, must supply 0 or greater linear ft. Can leave blank if no linear ft rating
CubicFeet	String	No	0..1	If customer has cubic ft rating, must supply 0 or greater cubic ft. Can leave blank if no cubic ft rating. Note this field is required if rating to a Hawaii or Puerto Rico zip code.
Pieces	Integer	No	0..1	Must be filled out if using Sort/Segregate service code or for some customer specific accessorial ratings
ServiceDeliveryOptions	Includes ServiceOptions	No	0..15	Container for additional service options that can optionally be added
COD				COD service is no longer offered.
Discount	Double	No	0..1	Optional – Allows a discount percentage to be entered (for internal quotes only)
ListedConsigneeCity	String(1)	No	0..1	Obsolete

InternalUse	String	No	0..1	“Y” value represents an internal quote. “N” for external
-------------	--------	----	------	--

PalletPosition	String	No	0..1	Only used by customers that have rating by pallet position otherwise blank or an integer
ShipDate	Date	Yes	0..1	Date format should be YYYY-MM-DD
Account	String	Yes	0..1	Used only for RateQuoteByAccount and RateQuoteByAccountByTerminal service operations – Four to seven digit rating account number
TerminalCode	String	Yes	0..1	Used only for RateQuoteByAccountByTerminal service operation – Three character terminal code

Element	ShipmentDetails			
Description	Holds Classes and Weights for Rating			
Rules	One instance is required, can supply up to 10			
Element Name	Type (Length)	Required	Cardinality	Description and Rules
ActualClass	Double	Yes	1	Class of Freight – see Appendix A for list of allowed values
Weight	Integer	Yes	1	Weight of freight for listed class

Element	ServiceOptions
----------------	-----------------------

Description	Holds optional services that can be addedon			
Rules	Not required, can hold up to 15 different accessorial options			
Element Name	Type (Length	Required	Cardinality	Description and Rules
ServiceCode	String(3)	Yes	1	Code for additional service requested. See Appendix B for list of allowed values

Example of RateQuote Request XML

```
<soap:Envelope xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Header>
    <AuthenticationHeader
xmlns="https://webservices.rrts.com/ratequote/">
      <UserName>myusername</UserName>
      <Password>mypassword</Password>
    </AuthenticationHeader>
  </soap:Header>
  <soap:Body>
    <RateQuote xmlns="https://webservices.rrts.com/ratequote/">
<request>
      <OriginZip>53110</OriginZip>
      <DestinationZip>90210</DestinationZip>
      <ShipmentDetails>
        <ShipmentDetail>
          <ActualClass>50</ActualClass>
          <Weight>1200</Weight>
        </ShipmentDetail>
        <ShipmentDetail>
          <ActualClass>65</ActualClass>
        </ShipmentDetail>
      </ShipmentDetails>
    </RateQuote>
  </soap:Body>
</soap:Envelope>
```

```

        <Weight>720</Weight>
    </ShipmentDetail>
</ShipmentDetails>
<OriginType>O</OriginType>
<PaymentType>P</PaymentType>
<PalletCount>0</PalletCount>
<LinearFeet>0</LinearFeet>
<Pieces>0</Pieces>
<ServiceDeliveryOptions>
    <ServiceOptions>
        <ServiceCode>ID</ServiceCode>
    </ServiceOptions>
    <ServiceOptions>
        <ServiceCode>HAZ</ServiceCode>
    </ServiceOptions>
</ServiceDeliveryOptions> <COD>
    <Prepaid>false</Prepaid>
    <CODAmount>0</CODAmount>          </COD>
<PalletPosition/>
</request>
</RateQuote>
</soap:Body>
</soap:Envelope>

```

```

<rat:Discount></rat:Discount>
<!--Optional:-->
<rat>ListedConsigneeCity?</rat>ListedConsigneeCity>
<!--Optional:-->
<rat:InternalUse>N</rat:InternalUse>
<!--Optional:-->
<rat:PalletPosition>0</rat:PalletPosition>
<rat:ShipDate>2014-08-22</rat:ShipDate>

```

Example of RateQuoteByAccount Request XML

Same XML as RateQuote with the addition of the Account element

```
<soap:Envelope xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Header>
    <AuthenticationHeader
xmlns="https://webservices.rrts.com/ratequote/">
      <UserName>myusername</UserName>
      <Password>mypassword</Password>
    </AuthenticationHeader>
  </soap:Header>
  <soap:Body>
    <RateQuoteByAccount xmlns="https://webservices.rrts.com/ratequote/">
      <request>
        <OriginZip>53110</OriginZip>
        <DestinationZip>90210</DestinationZip>
      </request>
    </RateQuoteByAccount>
  </soap:Body>
</soap:Envelope>
```



```
<ShipmentDetails>
  <ShipmentDetail>
    <ActualClass>50</ActualClass>
    <Weight>1200</Weight>
  </ShipmentDetail>
  <ShipmentDetail>
    <ActualClass>65</ActualClass>
    <Weight>720</Weight>
  </ShipmentDetail>
</ShipmentDetails>
<OriginType>O</OriginType>
<PaymentType>P</PaymentType>
<PalletCount>0</PalletCount>
<LinearFeet>0</LinearFeet>
<Pieces>0</Pieces>
<ServiceDeliveryOptions>
  <ServiceOptions>
    <ServiceCode>ID</ServiceCode>
  </ServiceOptions>
  <ServiceOptions>
    <ServiceCode>HAZ</ServiceCode>
  </ServiceOptions>
</ServiceDeliveryOptions> <COD>
  <Prepaid>false</Prepaid>
  <CODAmount>0</CODAmount>          </COD>
<PalletPosition/>
<Account>111111</Account>
</request>
</RateQuoteByAccount>
```

```
</soap:Body>
</soap:Envelope>
```

Example of RateQuoteByAccountByTerminal Request XML

Same XML as RateQuoteByAccount with the addition of the **TerminalCode** element

```
<soap:Envelope xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Header>
    <AuthenticationHeader
xmlns="https://webservices.rrts.com/ratequote/">
      <UserName>myusername</UserName>
      <Password>mypassword</Password>
    </AuthenticationHeader>
  </soap:Header>
  <soap:Body>
    <RateQuoteByAccountByTerminal
xmlns="https://webservices.rrts.com/ratequote/">
      <request>
        <OriginZip>53110</OriginZip>
        <DestinationZip>90210</DestinationZip>
        <ShipmentDetails>
```

```

    <ShipmentDetail>
      <ActualClass>50</ActualClass>
      <Weight>1200</Weight>
    </ShipmentDetail>
    <ShipmentDetail>
      <ActualClass>65</ActualClass>
      <Weight>720</Weight>
    </ShipmentDetail>
  </ShipmentDetails>
  <OriginType>O</OriginType>
  <PaymentType>P</PaymentType>
  <PalletCount>0</PalletCount>
  <LinearFeet>0</LinearFeet>
  <Pieces>0</Pieces>
  <ServiceDeliveryOptions>
    <ServiceOptions>
      <ServiceCode>ID</ServiceCode>
    </ServiceOptions>
    <ServiceOptions>
      <ServiceCode>HAZ</ServiceCode>
    </ServiceOptions>
  </ServiceDeliveryOptions>
  <COD>
    <Prepaid>>false</Prepaid>
    <CODAmount>0</CODAmount>          </COD>
  <PalletPosition/>
  <Account>111111</Account>
  <TerminalCode>CHI</TerminalCode>
</request>
</RateQuoteByAccountByTerminal>
</soap:Body>
</soap:Envelope>

```

Rate Quote Response Schema

The following tables contain the complex types found in the quote Response schema. Each table consists of the following:

- 1) Element – The element name.
- 2) Description – Information describing the current element.
- 3) Rules – Element requirements and limitations.

Element	Quote Response			
Description	The root element for aresponse			
Rules	This element is required for a response			
Element Name	Type (Length)	Required	Cardinality	Description and Rules

QuoteNumber	Integer	Yes	1	Quote Number returned from RRTS system
NetCharge	Double	Yes	1	Contains the net rate. In the event quote sent in cannot be rated will return -1
Customer	Customer Information	Yes	1	Container for Customer Information as stored in RRTS
RoutingInfo	Routing Information	Yes	1	Container for Routing Information as stored in RRTS
RateDetails	QuoteDetail	Yes	1..99	Individual line charges calculated by RRTS system
CustomerCubicFoot	Integer	No	1	Returns same cubic foot sent in
HawaiianCubicFoot	Integer	No	1	Returns cubic foot used for rating Hawaiian shipments
Element	CustomerInformation			
Description	Container for Customer Information			
Rules	This element is required for a response			
Element Name	Type (Length)	Required	Cardinality	Description and Rules
AccountNumber	String(Variable)	Yes	1	User's main RRTS account number

Name	String(Variable)	Yes	1	Customer Name
Address1	String(Variable)	Yes	1	Customer Address
Address2	String(Variable)	No	0..1	Additional Address Information
City	String(Variable)	Yes	1	Customer City
State	String(Variable)	Yes	1	Customer State
ZipCode	String(Variable)	Yes	1	Customer Zip Code

Element	RoutingInformation			
Description	Container for Routing Information			
Rules	This element is required for a response			
Element Name	Type (Length)	Required	Cardinality	Description and Rules
DestinationState	String(2)	Yes	1	Destination State
DestinationZip	String(6)	Yes	1	Destination Zip Code
OriginState	String(2)	Yes	1	Origin State
OriginZip	String(6)	Yes	1	Origin Zip Code
EstimatedTransitDays	String(5)	Yes	1	Estimated range in Business days
OriginTerminal	String(3)	Yes	1	Origin Terminal Code

Element	QuoteDetail
----------------	--------------------

Description	Container line item details for a quote			
Rules	This element is required for a response			
Element Name	Type (Length)	Required	Cardinality	Description and Rules
ActualClass	String(Variable)	No	0..1	Returned on line items with regular rates
RatedClass	String(Variable)	No	0..1	Returned on line items with regular rates
Charge	Double	Yes	1	Contains charge (positive or negative for discounts). Will be -1 if line item cannot be provided online
Code	String(Variable)	No	0..1	Provided for most line item charges. Will be blank for regular rates. – see Appendix C for list of values returned
Description	String(Variable)	No	0..1	Description for code field
Rate	Double	No	0..1	Returned for regular rates
Weight	Integer	No	0..1	Returned for regular rate lines
ExtraMessages	String(Variable)	No	1	Extra messages generated by the system – explains why individual rate came back with a -1 or where to find more information

Example of Response XML

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body>
    <RateQuoteResponse xmlns="https://webservices.rrts.com/ratequote/">
      <RateQuoteResult>
        <QuoteNumber>100390</QuoteNumber>
        <NetCharge>-1</NetCharge>
        <Customer>
          <AccountNumber>11111</AccountNumber>
          <Name>Road Runner Online Demo</Name>
          <Address1>4850 S Pennsylvannia</Address1>
          <Address2></Address2>
          <City>Cudahy</City>
          <State>WI</State>
          <ZipCode>53110</ZipCode>
        </Customer>
        <RoutingInfo>
          <DestinationState>CA</DestinationState>
        </RoutingInfo>
      </RateQuoteResult>
    </RateQuoteResponse>
  </soap:Body>
</soap:Envelope>
```



```

    <DestinationZip>90210</DestinationZip>
    <OriginState>WI</OriginState>
    <OriginZip>53110</OriginZip>
    <EstimatedTransitDays>3-4</EstimatedTransitDays>
    <OriginTerminal>MKE</OriginTerminal>
  </RoutingInfo>
  <RateDetails>
    <QuoteDetail>
      <ActualClass>50</ActualClass>
      <RatedClass>50</RatedClass>
      <Charge>1511.52</Charge>
      <Code></Code>
      <Description></Description>
      <Rate>125.96</Rate>
      <Weight>1200</Weight>
    </QuoteDetail>
    <QuoteDetail>
      <ActualClass></ActualClass>
      <RatedClass></RatedClass> <Charge>1</Charge>
      <Code>ID</Code>
      <Description>Inside Delivery</Description>
      <Rate>0</Rate>
      <Weight>0</Weight>
      <ExtraMessages> Inside Delivery Must Be Manually
Rated</ExtraMessages>
    </QuoteDetail>
  </RateDetails>
</RateQuoteResult>
</RateQuoteResponse>
</soap:Body>
</soap:Envelope>

```

Rate Quote Error Messages

If there are errors that stop a rating request, messages are returned via a SOAP Fault. Errors that are because of data issues will have a fault code of **Client** while issues with the system at RRTS will have a fault code of **Server**.

Examples of Client SOAP faults include the following scenarios:

- An invalid zip code is sent
- Roadrunner does not ship from the origin to the destination sent
- Invalid user name/password
- User is not setup for online rating

- Account number is not setup
- User is inactive
- Invalid class, origin type, or payment type sent

Other exceptions require more information before a quote can be sent. A subset of error numbers and descriptions follow:

- Error Number: 99999 – Internal System Error
- Error Number: 99998 – Invalid User
- Error Number: 99997 – Invalid Request – actual messages will vary based on missing or invalid fields sent
- Error Number: 99996 – This account has linear ft rating send back 0 (if unknown) or > linear ft count
- Error Number: 99995 – This account has pallet rating send back 0 (if unknown) or > pallet amount
- Error Number: 99994 – Pallet count required for accessorial
- Error Number: 99993 – Piece count required for accessorial
- Error Number: 99992 – This account has cubic ft rating send back 0 (if unknown) or > cubic ft count
- Error Number: 99991 – Manual rating required , call your nearest terminal for a quote
- Error Number: 99990 – Other unknown error – message will vary
- Error Number: 99989 – Is Consignee City in the following list (cities will vary). Send back Y or N (this is populated in the ConsigneeListedCity element).
- Error Number 99987 – Cubic Foot is Required for Hawaii & Puerto Rico Shipments

A sample SOAP fault is below:

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <soap:Fault>
      <faultcode>soap:Client</faultcode>
      <faultstring>Consignee City Required - Is Consignee in one of the
following cities:COLLINGTON;DUCK;KITTY HAWK;SOUTHERN SHORES;</faultstring>
      <faultactor>RateQuote</faultactor>
      <detail>
        <Error xmlns="https://webservices.rrts.com/ratequote/">
          <ErrorNumber>99989</ErrorNumber>
          <ErrorMessage>Consignee City Required - Is Consignee in one of the
following cities:COLLINGTON;DUCK;KITTY HAWK;SOUTHERN SHORES;</ErrorMessage>
          <ErrorSource>RateQuote</ErrorSource>
        </Error>
      </detail>
    </soap:Fault>
```

```
</soap:Body>  
</soap:Envelope>
```

Appendix A – Valid Freight Classes

- 50
- 55
- 60
- 65
- 70
- 77.5
- 85
- 92.5
- 100
- 110
- 125
- 150
- 175
- 200
- 250
- 300
- 400
- 500

Appendix B – Valid Request Service Codes

Code	Description
AHD	Apartment Delivery
AHP	Apartment Pickup
AID	Airport Site Delivery
AIP	Airport Site Pickup

AMD	Amusement Park Delivery
AMP	Amusement Park Pickup
APT	Appointment Charge
BSC	Blind Shipment Charge
CCD	Country Club/Golf Delivery
CCP	Country Club/Golf Pickup

CFS	Container Freight Station - Pickup
CFD	Container Freight Station - Delivery
CHD	Place of Worship – Delivery
CHP	Place of Worship – Pickup
CPD	Camp/Park/Resort Delivery
CPP	Camp/Park/Resort Pickup
CSD	Construction Delivery
CSP	Construction Pickup
DCC	Distribution Center Delivery
ESD	Exhibition Site Delivery
EXH	Exhibition Site Pickup
EXL	Shipment contains article(s) 12 ft but less than 20 ft
EXM	Shipment contains article(s) 8 ft but less than 12
EXX	Shipment contains article(s) 20 ft or greater
FAD	Farm/Ranch Delivery
FAP	Farm/Ranch Pickup
FAB	Floor Above/Below Delivery
FSD	Forest Delivery

CCD	Golf-Country Club Delivery
GSD	Government Site Delivery
WCL	Hawaiian Will Call
HAZ	Hazardous Materials
HHD	Hotel Delivery
HHP	Hotel Pickup
IRD	Indian Reservation Delivery
ID	Inside Delivery
IP	Inside Pickup
LGD	Liftgate Delivery
LGP	Liftgate Pickup
PSM	Maintain Temperature
MSD	Mine Site Delivery
NBD	Non Business Hours Delivery
NC	Notification Charge
NHD	Nursing Home Delivery
NHP	Nursing Home Pickup
PWD	Pier Port or Warf Delivery
PWP	Pier Port or Warf Pickup

PSD	Prison Delivery
PSC	Protect From Cold
PSH	Protect From Heat
RSD	Residential Delivery
RSP	Residential Pickup

SHD	School Site Delivery
SHP	School Site Pickup
SS	Single Shipment
SRT	Sort or Segregate
STD	Storage Unit Delivery
STP	Storage Unit Pickup
USD	Utility Site Delivery – Use for Limited Access
USP	Utility Site Pickup – Use for Limited Access

Appendix C – Response Codes

Code	Description
AAP	Non-Direct Point Pricing
AS	Rated AS Values
BYD	Beyond Charge
BYI	Beyond Charge - Island Delivery Charge
BYP	Beyond Charge – Documentation Charge
CA	California Compliance Charge - Destination
CO	California Compliance Charge - Origin
CFC	Collect COD Fee
CWC	Canadian Warehouse Charge
CWS	Canadian Border Clearance - Southbound

DEF	Deficit Weight
DIS	Discount
FSB	Fuel Surcharge Beyond
FSC	Fuel Surcharge
GLS	Geographic Linehaul Charge
LHS/HND	Linehaul Surcharge
NYD	NYC NY Delivery Charge
PLT	Pallet Based Rates and Charges
RLS	Regional Linehaul Surcharge
SED	Shipper Export Declaration Charge
WND	Western North Dakota Destination Charge

Notes:

Only a single California Compliance Charge for any shipment. Will not respond with CO & CA charge for same shipment.

If you encounter an undocumented Code, please download a new API document from our website: <https://freight.rts.com/Pages/System-Integration.aspx> to see if it has been added.