

# Middlewest Motor Freight Bureau

## MWB Web Service

<http://www.middlewest.com/mwbratingvirtualdirectory/service.asmx>

### Request Quote Schema To Return Shipment Charges

Element	Description
RequestQuote	Required. The root element for the request.
Username	Required. The username assigned to you by Middlewest Motor Freight Bureau.
Password	Required. The password assigned to you by Middlewest Motor Freight Bureau.
RequestID	Optional. A character string to represent this quote. Will be returned as is in the response.
TariffName	Required. The name of the tariff used to rate the shipment.
EffectiveDate	Required. The effective date of the level of rates for the tariff used to rate the shipment. Format YYYYMMDD.
ReturnType	Optional. "CHARGES" to return shipment charges.
OriginZip	Required. A five-digit US ZIP Code or a six-digit Canadian Postal Code.
DestinationZip	Required. A five-digit US ZIP Code or a six-digit Canadian Postal Code.
Commodities	Required. Indicates the beginning of where the commodities in the shipment are listed.
Commodity	One instance required. Up to thirty instances are allowed, with the following two child elements present for each instance.
Class	Optional for each Commodity element. The freight class of this commodity. Valid freight classes are: 50, 55, 60, 65, 70, 77.5, 85, 92.5, 100, 110, 125, 150, 175, 200, 250, 300, 400, 500.
Weight	Required for each Commodity element. The weight of this commodity, in pounds. Must be from 1 to 999999.
MCDiscount	Optional. The discount to be applied to the minimum charge. A four-digit number with two implied decimal places. Ex. 70% discount = 7000, 75.25% discount = 7525.
L5CDiscount	Optional. The discount to be applied to the L5C weight group. A four-digit number with two implied decimal places. Ex. 70% discount = 7000, 75.25% discount = 7525.
M5CDiscount	Optional. The discount to be applied to the M5C weight group. A four-digit number with two implied decimal places. Ex. 70% discount

	= 7000, 75.25% discount = 7525.
M1MDiscount	Optional. The discount to be applied to the M1M weight group. A four-digit number with two implied decimal places. Ex. 70% discount = 7000, 75.25% discount = 7525.
M2MDiscount	Optional. The discount to be applied to the M2M weight group. A four-digit number with two implied decimal places. Ex. 70% discount = 7000, 75.25% discount = 7525.
M5MDiscount	Optional. The discount to be applied to the M5M weight group. A four-digit number with two implied decimal places. Ex. 70% discount = 7000, 75.25% discount = 7525.
M10MDiscount	Optional. The discount to be applied to the M10M weight group. A four-digit number with two implied decimal places. Ex. 70% discount = 7000, 75.25% discount = 7525.
M20MDiscount	Optional. The discount to be applied to the M20M weight group. A four-digit number with two implied decimal places. Ex. 70% discount = 7000, 75.25% discount = 7525.
M30MDiscount	Optional. The discount to be applied to the M30M weight group. A four-digit number with two implied decimal places. Ex. 70% discount = 7000, 75.25% discount = 7525.
M40MDiscount	Optional. The discount to be applied to the M40M weight group. A four-digit number with two implied decimal places. Ex. 70% discount = 7000, 75.25% discount = 7525.
AbsoluteMC	Optional. The minimum charge floor. A five-digit number in cents. Freight charges cannot be discounted below this amount.
FuelSurcharge	Optional. A percentage stored as a four-digit number with two implied decimal places. Ex. 25.5% = 2550.

## Example of Request Quote XML Document

```
<?xml version="1.0" encoding="utf-8"?>
<RequestQuote xmlns="http://www.middlewest.com/">
  <Username>CUST01</Username>
  <Password>C01Passwd</Password>
  <RequestID>Quote01</RequestID>
  <TariffName>MARS 500</TariffName>
  <EffectiveDate>20180401</EffectiveDate>
  <OriginZip>50322</OriginZip>
  <DestinationZip>59055</DestinationZip>
  <Commodities>
    <Commodity>
      <Class>100</Class>
      <Weight>4060</Weight>
    </Commodity>
    <Commodity>
      <Class>50</Class>
      <Weight>3720</Weight>
    </Commodity>
  </Commodities>
  <MCDiscount>7250</MCDiscount>
  <L5CDiscount>7500</L5CDiscount>
  <M5CDiscount>7500</M5CDiscount>
  <M1MDiscount>7500</M1MDiscount>
  <M2MDiscount>7500</M2MDiscount>
  <M5MDiscount>7500</M5MDiscount>
  <M10MDiscount>7500</M10MDiscount>
  <M20MDiscount>7500</M20MDiscount>
  <M30MDiscount>7500</M30MDiscount>
  <M40MDiscount>7500</M40MDiscount>
  <AbsoluteMC>08700</AbsoluteMC>
  <FuelSurcharge>2550</FuelSurcharge>
</RequestQuote>
```

## Rated Quote Schema

Element	Description
RatedQuote	The root element for the rated quote.
RequestID	The quote identifier specified in the request.
ReturnCode	A two-character value that indicates if the shipment was rated successfully, and if not, why the shipment could not be rated. See Return Codes below.
ReturnMessage	A message that describes the ReturnCode.
RatedAs	Tells how the shipment was rated. Possible values: ACTUAL, DEFICIT, MINIMUM, AMC.
CommodityCharges	Signifies the beginning of the commodity detail area.
Commodity	One instance for each of the commodities in the Request Quote XML document, with the following two child elements present for each instance.
Rate	The applicable gross rate for this commodity, in cents.
Charge	The gross charge for this commodity, in cents.
ActualWeight	The total weight of all commodities in the shipment.
SumOfCharges	The sum of the gross charges for each commodity in the shipment, in cents.
DeficitClass	If the shipment was deficit rated, the class used to determine the rate for the deficit weight (valid classes listed in the Request Quote Schema).
DeficitWeight	The difference between the actual shipment weight and the billed weight.
DeficitRate	The applicable gross rate for the deficit, in cents.
DeficitCharge	The gross charge for the deficit, in cents.
BilledWeight	The weight at which the shipment was rated at.
SubtotalCharge	The sum of the SumOfCharges element and the DeficitCharge element, in cents.
DiscountPercent	The discount percentage used in rating the shipment. Shown as a four-digit number with two implied decimal places.
DiscountAmount	The amount of the discount, in cents.
TotalCharge	The net shipment charge after discount, in cents.
FuelSurcharge	The amount of the fuel surcharge to be added to the net shipment charge, in cents.

## **Return Codes and Messages**

- 00 – SUCCESSFUL
- 01 – TARIFF NOT AVAILABLE
- 03 – ORIGIN ZIP CODE NOT FOUND
- 04 – DESTINATION ZIP CODE NOT FOUND
- 05 – RATE BASE NUMBER NOT FOUND
- 06 – TARIFF DATA NOT FOUND
- 09 – INVALID USERNAME
- 10 – INVALID PASSWORD
- 11 – INVALID ORIGIN ZIP CODE
- 12 – INVALID DESTINATION ZIP CODE
- 13 – INVALID CLASS
- 14 – INVALID WEIGHT
- 15 – INVALID DISCOUNT
- 16 – INVALID ABSOLUTE MC
- 17 – INVALID FUEL SURCHARGE

## Example Rated Quote XML Document

```
<?xml version="1.0" encoding="UTF-8"?>
<RatedQuote xmlns="http://www.middlewest.com/">
  <RequestID>Quote01</RequestID>
  <ReturnCode>00</ReturnCode>
  <ReturnMessage>SUCCESSFUL</ReturnMessage>
  <RatedAs>DEFICIT</RatedAs>
  <CommodityCharges>
    <Commodity>
      <Rate>9566</Rate>
      <Charge>388380</Charge>
    </Commodity>
    <Commodity>
      <Rate>9566</Rate>
      <Charge>355855</Charge>
    </Commodity>
  </CommodityCharges>
  <ActualWeight>7780</ActualWeight>
  <SumOfCharges>744235</SumOfCharges>
  <DeficitClass >70</DeficitClass>
  <DeficitWeight>2220</DeficitWeight>
  <DeficitRate>9566</DeficitRate>
  <DeficitCharge>212365</DeficitCharge>
  <BilledWeight>10000</BilledWeight>
  <SubtotalCharge>956600</SubtotalCharge>
  <DiscountPercent>8800</DiscountPercent>
  <DiscountAmount>841808</DiscountAmount>
  <TotalCharge>114792</TotalCharge>
  <FuelSurcharge>29272</FuelSurcharge>
  <GrandTotalCharge>153064</GrandTotalCharge>
</RatedQuote>
```

## Request Quote Schema To Return Rate Block

Element	Description
RequestQuote	Required. The root element for the request.
Username	Required. The username assigned to you by Middlewest Motor Freight Bureau.
Password	Required. The password assigned to you by Middlewest Motor Freight Bureau.
RequestID	Optional. A character string to represent this quote. Will be returned as is in the response.
TariffName	Required. The name of the tariff used to rate the shipment.
EffectiveDate	Required. The effective date of the level of rates for the tariff used to rate the shipment. Format YYYYMMDD.
ReturnType	Required. "RATES" to return a rate block.
OriginZip	Required. A five-digit US ZIP Code or a six-digit Canadian Postal Code.
DestinationZip	Required. A five-digit US ZIP Code or a six-digit Canadian Postal Code.

## Example of Request Quote XML Document

```
<?xml version="1.0" encoding="utf-8"?>
<RequestQuote xmlns="http://www.middlewest.com/">
  <Username>CUST01</Username>
  <Password>C01Passwd</Password>
  <RequestID>Quote01</RequestID>
  <TariffName>MARS 510</TariffName>
  <EffectiveDate>20160401</EffectiveDate>
  <ReturnType>RATES</ReturnType>
  <OriginZip>50322</OriginZip>
  <DestinationZip>M4B0A3</DestinationZip>
</RequestQuote>
```



## Rated Quote Schema

Element	Description
RatedQuote	The root element for the rated quote.
RequestID	The quote identifier specified in the request.
ReturnCode	A two-character value that indicates if the shipment was rated successfully, and if not, why the shipment could not be rated. See Return Codes below.
ReturnMessage	A message that describes the ReturnCode.
MinimumCharges	A string of data containing the minimum charge(s) and the high weight(s) for which they apply. There are eight occurrences of the following two fields:  <div style="text-align: right; margin-right: 20px;">                     High Weight:        6 digits                      Minimum Charge:   6 digits                 </div>
WeightL5C	A string of data containing all the class rates for the L5C weight group. Classes are in descending order (500 – 50) and rates are 6 digits in cents per 100 pounds.
Weight5C	A string of data containing all the class rates for the 5C weight group. Classes are in descending order (500 – 50) and rates are 6 digits in cents per 100 pounds.
Weight1M	A string of data containing all the class rates for the 1M weight group. Classes are in descending order (500 – 50) and rates are 6 digits in cents per 100 pounds.
Weight2M	A string of data containing all the class rates for the 2M weight group. Classes are in descending order (500 – 50) and rates are 6 digits in cents per 100 pounds.
Weight5M	A string of data containing all the class rates for the 5M weight group. Classes are in descending order (500 – 50) and rates are 6 digits in cents per 100 pounds.
Weight10M	A string of data containing all the class rates for the 10M weight group. Classes are in descending order (500 – 50) and rates are 6 digits in cents per 100 pounds.
Weight20M	A string of data containing all the class rates for the 20M weight group. Classes are in descending order (500 – 50) and rates are 6 digits in cents per 100 pounds.
Weight30M	A string of data containing all the class rates for the 30M weight group. Classes are in descending order (500 – 50) and rates are 6 digits in cents per 100 pounds.
Weight40M	A string of data containing all the class rates for the 40M weight group. Classes are in descending order (500 – 50) and rates are 6 digits in cents per 100 pounds.

## **Return Codes and Messages**

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- 03 – ORIGIN ZIP CODE NOT FOUND
- 04 – DESTINATION ZIP CODE NOT FOUND
- 05 – RATE BASE NUMBER NOT FOUND
- 06 – TARIFF DATA NOT FOUND
- 09 – INVALID USERNAME
- 10 – INVALID PASSWORD
- 11 – INVALID ORIGIN ZIP CODE
- 12 – INVALID DESTINATION ZIP CODE

