



Rating - Ground Freight - LTL

JSON Developer Guide

July 8, 2019



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Key Legal Requirements for UPS Developer APIs

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Chapter 1: Introduction

In this document, you will find guidance and instructions for integrating the Rating Ground Freight LTL JSON API into your application, service, or system.

IMPORTANT:

- If this is your first time working with the UPS Developer Kit, begin with the *Introduction to the UPS Developer Kit* guide. This guide serves as the foundation for all API-specific developer guides.
- For additional API, XPath, and Error Code information, refer to the *Rating Ground Freight LTL Web Service Developer Guide*.

Chapter 2: Customer Integration Environment (CIE)

The Customer Integration Environment allows customers to test their application prior to launch. This environment is intended for integration testing of customer applications with the UPS servers.

Once your application has been thoroughly tested, you should redirect the application to the UPS Production Environment.



No stress testing should ever be performed by customers against any UPS systems.

To access testing and production sites the user must have an Access Key. You can request an Access Key after establishing a UPS profile and associating your shipping account.

System Availability

The Customer Integration Environment is available 24 hours a day, 7 days a week. Note the system is occasionally down for server maintenance.

JSON Testing and Production URLs



All API URLs are case sensitive.

| | |
|--------------------|---|
| Testing: | https://wwwcie.ups.com/rest/FreightRate |
| Production: | https://onlinetools.ups.com/rest/FreightRate |

Chapter 3: JSON Examples

FreightRateRequest

```
{
  "UPSSecurity": {
    "UsernameToken": {
      "Username": "Username",
      "Password": "Password"
    },
    "ServiceAccessToken": {
      "AccessLicenseNumber": "AccessLicenseNumber"
    }
  },
  "FreightRateRequest": {
    "Request": {
      "RequestOption": "1",
      "TransactionReference": {
        "TransactionIdentifier": "TransactionIdentifier"
      }
    },
    "ShipFrom": {
      "Name": "ShipFrom Name",
      "Address": {
        "AddressLine": "AddressLine",
        "City": "City",
        "StateProvinceCode": "StateProvinceCode",
        "PostalCode": "PostalCode",
        "CountryCode": "CountryCode"
      },
      "AttentionName": "Contact",
      "Phone": {
        "Number": "Phone number",
        "Extension": "Extension number"
      },
      "EMailAddress": "EMailAddress"
    },
    "ShipperNumber": "ShipperNumber",
    "ShipTo": {
      "Name": "ShipTo name",
      "Address": {
        "AddressLine": "AddressLine",
        "City": "City",
        "StateProvinceCode": "StateProvinceCode",
        "PostalCode": "PostalCode",
        "CountryCode": "CountryCode"
      },
      "AttentionName": "AttentionName",
      "Phone": {
        "Number": "Phone number",
        "Extension": "Extension number"
      }
    },
    "PaymentInformation": {
```

```

"Payer": {
  "Name": "Payer Name",
  "Address": {
    "AddressLine": "AddressLine",
    "City": "City",
    "StateProvinceCode": "StateProvinceCode",
    "PostalCode": "PostalCode",
    "CountryCode": "CountryCode"
  },
  "ShipperNumber": "Payer\u0027s shipper Number",
  "AccountType": "AccountType",
  "AttentionName": "AttentionName",
  "Phone": {
    "Number": "Phone number",
    "Extension": "Extension number"
  },
  "EmailAddress": "EmailAddress"
},
"ShipmentBillingOption": {
  "Code": "ShipmentBillingOption"
}
},
"Service": {
  "Code": "Service code"
},
"HandlingUnitOne": {
  "Quantity": "HandlingUnitOne quantity",
  "Type": {
    "Code": "HandlingUnitOne code"
  }
},
"Commodity": {
  "Description": "Commodity description",
  "Weight": {
    "UnitOfMeasurement": {
      "Code": "UnitOfMeasurement code"
    },
    "Value": "Weight"
  },
  "NumberOfPieces": "NumberOfPieces",
  "PackagingType": {
    "Code": "PackagingType code"
  },
  "FreightClass": "FreightClass"
},
"ShipmentServiceOption": {
  "WeekendPickupIndicator": ""
},
"DensityEligibleIndicator": "",
"AdjustedWeightIndicator": "",
"HandlingUnitWeight": {
  "Value": "HandlingUnitWeight",
  "UnitOfMeasurement": {
    "Code": "UnitOfMeasurement code"
  }
}

```



```
,
  "AlternateRateOptions": {
    "Code": "AlternateRateOptions code"
  },
  "PickupRequest": {
    "PickupDate": "PickupDate"
  },
  "TimeInTransitIndicator": "",
  "GFPOptions": {
    "OnCallInformation": {
      "OnCallPickupIndicator": ""
    }
  }
}
```

FreightRateResponse

```
{
  "FreightRateResponse": {
    "Response": {
      "ResponseStatus": {
        "Code": "1",
        "Description": "Success"
      },
      "Alert": {
        "Code": "9369055",
        "Description": "User is not eligible for contract rates."
      },
      "TransactionReference": {
        "TransactionIdentifier": "TransactionIdentifier"
      }
    },
    "Rate": [
      {
        "Type": {
          "Code": "DSCNT",
          "Description": "DSCNT"
        },
        "Factor": {
          "Value": "Value",
          "UnitOfMeasurement": {
            "Code": "UnitOfMeasurement code"
          }
        }
      },
      {
        "Type": {
          "Code": "DSCNT_RATE",
          "Description": "DSCNT_RATE"
        },
        "Factor": {
          "Value": "Value",
          "UnitOfMeasurement": {
            "Code": "UnitOfMeasurement code"
          }
        }
      },
      {
        "Type": {
          "Code": "2",
          "Description": "2"
        },
        "Factor": {
          "Value": "Value",
          "UnitOfMeasurement": {
            "Code": "UnitOfMeasurement code"
          }
        }
      }
    ]
  }
}
```

```

    "Type": {
      "Code": "DEFICITRATE",
      "Description": "DEFICITRATE"
    },
    "Factor": {
      "Value": "Value",
      "UnitOfMeasurement": {
        "Code": "UnitOfMeasurement code"
      }
    }
  },
  {
    "Type": {
      "Code": "DEFICITWGHT",
      "Description": "DEFICITWGHT"
    },
    "Factor": {
      "Value": "Value",
      "UnitOfMeasurement": {
        "Code": "UnitOfMeasurement code"
      }
    }
  },
  {
    "Type": {
      "Code": "DFCT_AMT",
      "Description": "DFCT_AMT"
    },
    "Factor": {
      "Value": "Value",
      "UnitOfMeasurement": {
        "Code": "UnitOfMeasurement code"
      }
    }
  },
  {
    "Type": {
      "Code": "LND_GROSS",
      "Description": "LND_GROSS"
    },
    "Factor": {
      "Value": "Value",
      "UnitOfMeasurement": {
        "Code": "UnitOfMeasurement code"
      }
    }
  },
  {
    "Type": {
      "Code": "AFTR_DSCNT",
      "Description": "AFTR_DSCNT"
    },
    "Factor": {
      "Value": "Value",
      "UnitOfMeasurement": {

```

```

      "Code": "UnitOfMeasurement code"
    }
  }
},
"FreightDensityRate": {
  "Density": "Density",
  "TotalCubicFeet": "TotalCubicFeet"
},
"Commodity": {
  "Description": "Freight",
  "Weight": {
    "Value": "Weight",
    "UnitOfMeasurement": {
      "Code": "UnitOfMeasurement code"
    }
  },
  "AdjustedWeight": {
    "Value": "AdjustedWeight",
    "UnitOfMeasurement": {
      "Code": "UnitOfMeasurement code"
    }
  }
},
"TotalShipmentCharge": {
  "CurrencyCode": "CurrencyCode",
  "MonetaryValue": "TotalShipmentCharge MonetaryValue"
},
"BillableShipmentWeight": {
  "Value": "BillableShipmentWeight",
  "UnitOfMeasurement": {
    "Code": "UnitOfMeasurement code"
  }
},
"DimensionalWeight": {
  "Value": "DimensionalWeight value",
  "UnitOfMeasurement": {
    "Code": "UnitOfMeasurement code"
  }
},
"Service": {
  "Code": "Service code"
},
"GuaranteedIndicator": "",
"AlternateRatesResponse": {
  "AlternateRateType": {
    "Code": "AlternateRateType",
    "Description": "AlternateRateType description"
  },
  "Rate": [
    {
      "Type": {
        "Code": "DSCNT",
        "Description": "DSCNT"
      }
    }
  ],

```

```

    "Factor": {
      "Value": "Value",
      "UnitOfMeasurement": {
        "Code": "UnitOfMeasurement code"
      }
    }
  },
  {
    "Type": {
      "Code": "DSCNT_RATE",
      "Description": "DSCNT_RATE"
    },
    "Factor": {
      "Value": "Value",
      "UnitOfMeasurement": {
        "Code": "UnitOfMeasurement code"
      }
    }
  },
  {
    "Type": {
      "Code": "DEFICITRATE",
      "Description": "DEFICITRATE"
    },
    "Factor": {
      "Value": "Value",
      "UnitOfMeasurement": {
        "Code": "UnitOfMeasurement code"
      }
    }
  },
  {
    "Type": {
      "Code": "DEFICITWGHT",
      "Description": "DEFICITWGHT"
    },
    "Factor": {
      "Value": "Value",
      "UnitOfMeasurement": {
        "Code": "UnitOfMeasurement code"
      }
    }
  },
  {
    "Type": {
      "Code": "DFCT_AMT",
      "Description": "DFCT_AMT"
    },
    "Factor": {
      "Value": "Value",
      "UnitOfMeasurement": {
        "Code": "UnitOfMeasurement code"
      }
    }
  }
},

```

```

{
  "Type": {
    "Code": "LND_GROSS",
    "Description": "LND_GROSS"
  },
  "Factor": {
    "Value": "Value",
    "UnitOfMeasurement": {
      "Code": "UnitOfMeasurement code"
    }
  }
},
{
  "Type": {
    "Code": "AFTR_DSCNT",
    "Description": "AFTR_DSCNT"
  },
  "Factor": {
    "Value": "Value",
    "UnitOfMeasurement": {
      "Code": "UnitOfMeasurement code"
    }
  }
},
{
  "Type": {
    "Code": "FRS_ONCALL_PICKUP_CHARGE",
    "Description": "FRS_ONCALL_PICKUP_CHARGE"
  },
  "Factor": {
    "Value": "Value"
  }
},
],
"FreightDensityRate": {
  "Density": "Density",
  "TotalCubicFeet": "TotalCubicFeet"
},
"BillableShipmentWeight": {
  "Value": "BillableShipmentWeight",
  "UnitOfMeasurement": {
    "Code": "UnitOfMeasurement code"
  }
},
"TimeInTransit": {
  "DaysInTransit": "DaysInTransit"
},
"RatingSchedule": {
  "Code": "RatingSchedule code",
  "Description": "RatingSchedule description"
},
"TimeInTransit": {
  "DaysInTransit": "DaysInTransit"
}
}

```

```
}  
}
```

Appendix

JSON Error Codes

| Code | Description |
|------|--|
| 1 | Unrecognized Error Any error, other than those listed below, causing an issue with the request. <ul style="list-style-type: none">• Verify the request headers are correct.• Retry the request again later |
| 2 | Unknown Operation The UPS system does not understand the operation and is unable to forward the request to the correct API. <ul style="list-style-type: none">• Verify the request headers are correct.• Check request structure. |
| 3 | Network Error Transient error indicating the network is hindering request submission. <ul style="list-style-type: none">• Retry the request again later. |
| 4 | JSON Syntax Error Indicates a problem with the JSON syntax. <ul style="list-style-type: none">• Verify your request syntax is correct. |