



Rating - Package

JSON Developer Guide

July 10, 2017



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UPS Developer Kit APIs

Your development of an application using UPS Developer Kit APIs is governed by the UPS Technology Agreement you entered into with UPS. The following are key legal requirements from these agreements for the UPS Developer Kit APIs. For more information on all requirements for the UPS Developer Kit APIs, please refer to the UPS Technology Agreement.

Defined terms used but not defined in this document have the meaning set forth in the UPS Technology Agreement.

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 Package 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 Package 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 URLs are case sensitive.

Testing:	https://wwwcie.ups.com/rest/Rate
Production:	https://onlinetools.ups.com/rest/Rate

Chapter 3: JSON Examples

RateRequest

```
{
  "UPSSecurity": {
    "UsernameToken": {
      "Username": "Your User Id",
      "Password": "Your Password"
    },
    "ServiceAccessToken": {
      "AccessLicenseNumber": "Your Access License"
    }
  },
  "RateRequest": {
    "Request": {
      "RequestOption": "Rate",
      "TransactionReference": {
        "CustomerContext": "Your Customer Context"
      }
    }
  },
  "Shipment": {
    "Shipper": {
      "Name": "Shipper Name",
      "ShipperNumber": "Shipper Number",
      "Address": {
        "AddressLine": [
          "Address Line ",
          "Address Line ",
          "Address Line "
        ],
        "City": "City",
        "StateProvinceCode": "State Province Code",
        "PostalCode": "Postal Code",
        "CountryCode": "US"
      }
    },
    "ShipTo": {
      "Name": "Ship To Name",
      "Address": {
        "AddressLine": [
          "Address Line ",
          "Address Line ",
          "Address Line "
        ],
        "City": "City",
        "StateProvinceCode": "State Province Code",
        "PostalCode": "Postal Code",
        "CountryCode": "US"
      }
    },
    "ShipFrom": {
      "Name": "Ship From Name",
      "Address": {
```

```
    "AddressLine": [
      "Address Line ",
      "Address Line ",
      "Address Line "
    ],
    "City": "City",
    "StateProvinceCode": "State Province Code",
    "PostalCode": "Postal Code",
    "CountryCode": "US"
  }
},
"Service": {
  "Code": "03",
  "Description": "Service Code Description"
},
"Package": {
  "PackagingType": {
    "Code": "02",
    "Description": "Rate"
  },
  "Dimensions": {
    "UnitOfMeasurement": {
      "Code": "IN",
      "Description": "inches"
    },
    "Length": "5",
    "Width": "4",
    "Height": "3"
  },
  "PackageWeight": {
    "UnitOfMeasurement": {
      "Code": "Lbs",
      "Description": "pounds"
    },
    "Weight": "1"
  }
},
"ShipmentRatingOptions": {
  "NegotiatedRatesIndicator": ""
}
}
```


RateResponse

```
{
  "RateResponse": {
    "Response": {
      "ResponseStatus": {
        "Code": "1",
        "Description": "Success"
      },
      "Alert": {
        "Code": "110971",
        "Description": "Yourinvoicemayvaryfrom...."
      },
      "TransactionReference": {
        "CustomerContext": "YourCustomerContext"
      }
    },
    "RatedShipment": {
      "Service": {
        "Code": "03",
        "Description": ""
      },
      "RatedShipmentAlert": {
        "Code": "110971",
        "Description": "Yourinvoicemayvary...."
      },
      "BillingWeight": {
        "UnitOfMeasurement": {
          "Code": "LBS",
          "Description": "Pounds"
        },
        "Weight": "1.0"
      },
      "TransportationCharges": {
        "CurrencyCode": "USD",
        "MonetaryValue": "8.60"
      },
      "ServiceOptionsCharges": {
        "CurrencyCode": "USD",
        "MonetaryValue": "0.00"
      },
      "TotalCharges": {
        "CurrencyCode": "USD",
        "MonetaryValue": "8.60"
      },
      "NegotiatedRateCharges": {
        "TotalCharge": {
          "CurrencyCode": "USD",
          "MonetaryValue": "7.92"
        }
      },
      "RatedPackage": {
        "TransportationCharges": {
          "CurrencyCode": "USD",
          "MonetaryValue": "8.60"
        }
      }
    }
  }
}
```

```

    },
    "ServiceOptionsCharges": {
      "CurrencyCode": "USD",
      "MonetaryValue": "0.00"
    },
    "TotalCharges": {
      "CurrencyCode": "USD",
      "MonetaryValue": "8.60"
    },
    "Weight": "1.0",
    "BillingWeight": {
      "UnitOfMeasurement": {
        "Code": "LBS",
        "Description": "Pounds"
      },
      "Weight": "1.0"
    }
  }
}

```

Published Rates RateRequest

```

{
  "UPSSecurity": {
    "UsernameToken": {
      "Username": "Your User Id",
      "Password": "Your Password"
    },
    "ServiceAccessToken": {
      "AccessLicenseNumber": "Your Access License"
    }
  },
  "RateRequest": {
    "Request": {
      "RequestOption": "Rate",
      "TransactionReference": {
        "CustomerContext": "Your Customer Context"
      }
    },
    "Shipment": {
      "Shipper": {
        "Name": "Shipper Name",
        "ShipperNumber": "Your Shipper Number",
        "Address": {
          "AddressLine": "Address Line",
          "City": "City",
          "StateProvinceCode": "StateProvinceCode",
          "PostalCode": "PostalCode",
          "CountryCode": "CountryCode"
        }
      },
      "ShipTo": {

```

```

    "Name": "Ship To Name",
    "Address": {
      "AddressLine": "Address Line",
      "City": "City",
      "StateProvinceCode": "StateProvinceCode",
      "PostalCode": "PostalCode",
      "CountryCode": "CountryCode"
    }
  },
  "ShipFrom": {
    "Address": {
      "AddressLine": "Address Line",
      "City": "City",
      "StateProvinceCode": "StateProvinceCode",
      "PostalCode": "PostalCode",
      "CountryCode": "CountryCode"
    }
  },
  "Service": {
    "Code": "03",
    "Description": "Service Code"
  },
  "Package": {
    "PackagingType": {
      "Code": "02",
      "Description": "Rate"
    },
    "Dimensions": {
      "UnitOfMeasurement": {
        "Code": "IN",
        "Description": "inches"
      },
      "Length": "5",
      "Width": "4",
      "Height": "10"
    },
    "PackageWeight": {
      "UnitOfMeasurement": {
        "Code": "LBS",
        "Description": "pounds"
      },
      "Weight": "1"
    }
  }
}

```

Published Rates RateResponse

```
{
  "RateResponse": {
    "Response": {
      "ResponseStatus": {
        "Code": "1",
        "Description": "Success"
      },
      "Alert": {
        "Code": "110971",
        "Description": "Your invoice may vary from the displayed reference rates"
      },
      "TransactionReference": {
        "CustomerContext": "Your Customer Context"
      }
    },
    "RatedShipment": {
      "Service": {
        "Code": "03",
        "Description": ""
      },
      "RatedShipmentAlert": {
        "Code": "110971",
        "Description": "Your invoice may vary from the displayed reference rates"
      },
      "BillingWeight": {
        "UnitOfMeasurement": {
          "Code": "LBS",
          "Description": "Pounds"
        },
        "Weight": "2.0"
      },
      "TransportationCharges": {
        "CurrencyCode": "USD",
        "MonetaryValue": "9.86"
      },
      "ServiceOptionsCharges": {
        "CurrencyCode": "USD",
        "MonetaryValue": "0.00"
      },
      "TotalCharges": {
        "CurrencyCode": "USD",
        "MonetaryValue": "9.86"
      },
      "RatedPackage": {
        "TransportationCharges": {
          "CurrencyCode": "USD",
          "MonetaryValue": "9.86"
        },
        "ServiceOptionsCharges": {
          "CurrencyCode": "USD",
          "MonetaryValue": "0.00"
        },
        "TotalCharges": {
```

```
    "CurrencyCode": "USD",  
    "MonetaryValue": "9.86"  
  },  
  "Weight": "1.0",  
  "BillingWeight": {  
    "UnitOfMeasurement": {  
      "Code": "LBS",  
      "Description": "Pounds"  
    },  
    "Weight": "2.0"  
  }  
}  
}  
}  
}
```

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.