**Fleet Portal WebsiteWeb Service Interface Definition**

For Crown Commercial Services

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1. Document Properties

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# Terms of Reference

This document defines the interface between the Fleet Portal website and the supplier web services.

## Change history

| **Revision** | **Date** | **Author** | **Summary of changes** |
| --- | --- | --- | --- |
| 1.0 | 08 Oct 07 | James Allitt | None – 1st revision |
| 1.1 | 30 Oct 07 | Lewis Veale | Proof for initial draft release |
| 1.2 | 07 Nov 07 | James Allitt | Updated after Supplier response |
| 1.3 | 07 Nov 07 | Steve Callaghan | Review for distribution |
| 1.4 | 07 Nov 07 | Lewis Veale | Expected WS response times added |
| 2.0 | 29 Feb 08 | James Allitt | Updated for new requirements |
| 2.1 | 03 Mar 08 | Lewis Veale | Proof for release |
| 2.2 | 06 Mar 08 | Mark Stringer | Correct fault specification to SOAP 1.1 |
| 2.3 | 06 Mar 08 | Lewis Veale | Correct references |
| 2.4 | 03 Jul 08 | James Allitt | Updated for changes |
| 2.5 | 29 Jul 08 | James Allitt | Added further exception details |
| 2.6 | 25 Mar 11 | Lewis Veale | Updated for new framework |
| 2.7 | 28 Mar 11 | Lewis Veale | Updated with feedback from BS |
| 2.8 | 18 April 11 | Helen Ward | Updating to correct template and address only – no changes to text |
| 2.9 | 26 April 11 | Lewis Veale | Add clarification about MethodFeedback calls |
| 3.0 | 17 July 12 | Robert Lindsay | Updated for new framework, wording amendments |
| 3.1 | 26 May 17 | David Kelly | Update “Government Procurement Services” to “Crown Commercial Services, “GPS” to “CCS”. No changes to functionality.  |

## References

| **No.** | **Document** | **Author** | **Revision** | **Date** |
| --- | --- | --- | --- | --- |
| 1 | Performance Specification for a new Lease Car Website Application (with emailed questions and answers appended) | Peter Miller | 1.1 | 15/08/2007 |
| 2 | GetRateRequest.xml – sample GetRate request | Robert Lindsay | 2.0 | 25/03/2011 |
| 3 | GetRateResponse.xml – sample GetRate response | Robert Lindsay | 2.0 | 25/03/2011 |
| 4 | MethodFeedbackRequest.xml – sample MethodFeedback request | Robert Lindsay | 2.0 | 25/03/2011 |
| 5 | CredentialsHeaderElement.xml – sample credentials element to be supplied in soap header of GetRate request | Robert Lindsay | 2.0 | 25/03/2011 |
| 6 | Common.xsd | Robert Lindsay | 2.0 | 28/03/2011 |
| 7 | GetRate.xsd | Robert Lindsay | 2.0 | 25/03/2011 |
| 8 | MaintainOrganisation.xsd | Robert Lindsay | 2.0 | 25/03/2011 |
| 9 | MethodFeedback.xsd | Robert Lindsay | 2.0 | 25/03/2011 |

## Summary of Changes from v2.5 to v2.7

| **No.** | **Section** | **Summary** |
| --- | --- | --- |
| 1 | 2.1.1 | GetRate request:* Remove profitshare element
* Add roadfundlicence & reliefvehicle

Change options & type for the organisation/service element |
| 2 | 2.1.2 | GetRate response:* Remove profitshare element
* Add roadfundlicence & reliefvehicle
* Change options & type for the organisation/service element
* Add financerate element

residual and quote/service elements are now mandatory |
| 3 | 2.2.1 | MaintainOrganisation request:* Remove profitshare element
* Add roadfundlicence & reliefvehicle

Change options & type for the organisation/service element  |
| 4 | N/A | **NB**. Although there are no associated material changes to any of the web services, it is intended that the Lease Portal will be updated in the near future to enable users to search and obtain lease quotations for Light Commercial Vehicles (LCVs). Suppliers should therefore assume that the submitted CAP ID, CAP Code and CAP Option Codes may represent either cars or LCVs. |
| 5 | 2.1.1 & 2.1.2 | Extend possible lease periods up to 7 yearsExtend possible annual mileage bands up to 40,000 miles |
| 6 | All | Change web service namespace to “https://fleetportal.buyingsolutions.gov.uk” |

## Summary of Changes from v2.7 to v3.0

| **No.** | **Section** | **Summary** |
| --- | --- | --- |
| 1 | 2.1.1 | GetRate request:* Removal of limitedbadge element
 |
| 2 | 2.1.2 | GetRate response:* Removal of limitedbadge element
 |
| 3 | 2.2.1 | MaintainOrganisation request* Removal of paymentmodel element
* Removal of service element
* Removal of roadfundlicence element
* Removal of limitedbadge element
* Addition of profiles element
	+ Addition of profile element with profiles element, maximum of 3
		- Addition of profilename element in profile element
		- Addition of paymentmodel element in profile element
		- Addition of service element in profile element
		- Addition of roadfundlicence element in profile element
 |

1. Web Service Methods

Each supplier will implement a SOAP 1.1 Web Service which exposes the following methods:

* GetRate
* MaintainOrganisation
* MethodFeedback

The purpose and parameters of these methods is described in the following sections. Each request will be wrapped in a SOAP envelope as follows:

<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>

</soap:Header>
    <soap:Body>

    </soap:Body>
</soap:Envelope>

The service namespace will be https://fleetportal.buyingsolutions.gov.uk.

Each method will authenticate requests using a username and password which will be supplied in the SOAP header element. These credentials will be supplied and validated by the supplier (see below).

<credentials xmlns=”https://fleetportal.buyingsolutions.gov.uk”>

 <username>String</username>

 <password>String</password>

</credentials>

Examples of the request and response XML for the three methods are given in the document.

It is expected that responses to these web service requests will be received within a configurable time limit. Any responses received outside this timeframe will be considered to have “timed out” and any subsequent response will not be displayed to the user. The time limit for responses will be set by Crown Commercial Services. NB although the MethodFeedback web service methd is called imdiately after each GetRate and MaintainOrganisation call, the time taken to process this second method call is not included in the configurable time limit.

## GetRate method

The GetRate method provides price information based on the vehicle and organisation it receives in the request parameters. Its input and output parameters are as follows:

### Request

Note that only one vehicle is specified for each request. An example GetRate request and explanation of its elements is as follows:

| **Node** | **Data Type** | **Description** |
| --- | --- | --- |
| requestid | GUID | Globally Unique Identifier (GUID) – generated by the car leasing site and used to ensure the response matches the request |
| supplierid | Positive Integer | Unique identifier assigned by the car leasing website to each supplier. This should be validated by the supplier, an exception being thrown if incorrect. |
| vehicle/capid | Positive Integer | Unique identifier assigned by CAP for the selected vehicle.  |
| vehicle/capcode | String | Descriptive string code, equivalent to capid. |
| vehicle/optioncode | Positive Integer | Zero or more unique identifiers assigned by CAP for the selected option(s). Validation of options to ensure they are available for the selected vehicle and do not conflict with each other is the responsibility of the car leasing website. If conflicting or invalid options are requested, no rate should be returned. |
| vehicle/period | Enumeration | Number of years. Only 1 - 7 are valid. |
| vehicle/mileage | Positive Integer | One of 35 possible mileage bands: 6000, 7000, 8000 … 40,000 |
| organisation/id | Positive Integer | Unique identifier for the organisation. Organisation IDs are assigned by the Car Leasing website. Suppliers will be made aware of these via the MaintainOrganisation method, section **Error! Reference source not found.** |
| organisation/paymentmodel | Enumeration | From AnnualInAdvance, QuarterlyInAdvance, QuarterlyInArrears, MontlhyInAdvance, MonthlyInArrears  |
| organisation/service | boolean | Is service & maintenance included?Possible values: true or false |
| organisation/roadfundlicence | boolean | Is the road fund licence included?Possible values: true or false |
| organisation/reliefvehicle | boolean | Is a relief vehicle included (28 days chargeable)?Possible values: true or false |

The supplier will provide a username and password to authenticate calls from the car leasing website. These will be included in the SOAP Header element as username and password elements.

### Response

All of the values in the request must be included in the response. This is for auditing purposes. There will also be a quote element. This must contain a single rate element, along with a residual, service and financerate element:



| **Node** | **Data Type** | **Description** |
| --- | --- | --- |
| requestid | GUID | Globally Unique Identifier (GUID). |
| vehicle/capid | Positive Integer | Unique identifier assigned by CAP for the selected vehicle.  |
| vehicle/capcode | String | Descriptive string code, equivalent to capid. |
| vehicle/optioncode | Positive Integer | Zero or more unique identifiers assigned by CAP for the selected option(s). Validation of options to ensure they are available for the selected vehicle and do not conflict with each other is the responsibility of the car leasing website. If conflicting or invalid options are requested, no rate should be returned. |
| vehicle/period | Enumeration | Number of years. Only 1 - 7 are valid. |
| vehicle/mileage | Positive Integer | One of 35 possible mileage bands: 6000, 7000, 8000 … 40,000 |
| organisation/id | Positive Integer | Unique identifier for the organisation. Organisation IDs are assigned by the Car Leasing website. Suppliers will be made aware of these via the MaintainOrganisation method, section **Error! Reference source not found.** |
| organisation/paymentmodel | Enumeration | From AnnualInAdvance, QuarterlyInAdvance, QuarterlyInArrears, MontlhyInAdvance, MonthlyInArrears  |
| organisation/service | boolean | Possible values: true or false |
| organisation/roadfundlicence | boolean | Possible values: true or false |
| organisation/reliefvehicle | boolean | Possible values: true or false |
| quote/@supplierid | Attribute, Positive Integer | The supplierid attribute is the unique identifier assigned by the car leasing website to each supplier. This is supplied in the request. |
| quote/@reference | Attribute, String, max 30 characters | The reference attribute is the supplier’s quote reference. The car leasing website will use this reference when producing the final quote.  |
| quote/@expires | Attribute, Date/Time | The expires attribute is used to return the date the quote expires |
| quote/@mileage | Attribute, Positive Integer | Annual mileage that the quoted rate is for. Also applies to the “residual” and “service” values returned. |
| quote/rate | Decimal | The lease rate for this vehicle, excluding VAT. This will be Annual, Quarterly or Monthly depending on the Payment Model. |
| quote/residual | Decimal | Residual value of the vehicle at the end of the lease period. Now mandatory |
| quote/service | Decimal | The amount of the annual lease rate that was added on for service & maintenance. Now mandatory. |
| quote/financerate | Decimal | The finance rate as a percentage. Mandatory |

Note that the quote element is only included if the requested vehicle can be supplied.

Immediately after the GetRate response is received, the Lease Portal will call the MethodFeedback method asynchronously (see section 3.3).

### Exceptions

Faults will be returned as SOAP faults, with a layout as follows:

<soap:Fault>

<faultcode>soap:Server</faultcode>

<faultstring>Incorrect supplier ID</faultstring>

<faultactor>http://www.supplierwebservice.co.uk/Rates.asmx</faultactor>

<detail>

 <errordetails xmlns=”https://fleetportal.buyingsolutions.gov.uk”>

 <errorcode>1002</errorcode >

<errorid>100832</errorid >

</errordetails>

</detail>

</soap:Fault>

The “faultcode” element is defined by the SOAP schema, and in the case of errors caused by invalid values being passed to the web services, should always return “soap:Server”. The “faultstring“ and the content of the “detail” element for all potential errors are given in the table below.

Validating the request & response against the supplied schema should reduce the possibility of exceptions being caused by invalid parameters. However, there are some circumstances where it may be possible that the car leasing system submits incorrect parameters to the web services. In these circumstances, the following codes should be used:

| **Condition** | **faultstring** | **errorcode** | **errorid** |
| --- | --- | --- | --- |
| Invalid Credentials | Invalid Credentials | 1001 | N/A |
| Incorrect SupplierID | Incorrect Supplier ID | 1002 | The incorrect Supplier ID |
| Invalid CapID | Invalid CAP ID | 1003 | The incorrect CAP ID |
| Invalid CapOptionID | Invalid Cap Option ID | 1004 | The incorrect CAP option ID |
| Invalid Lease PeriodThis vehicle cannot be supplied over the requested lease period. | Invalid Lease Period  | 1005 | The incorrect lease period |
| Invalid CAP Manufacturer ID | Invalid CAP Manufacturer ID | 1007 | The invalid CAP Manufacturer ID |
| Any other error | General Exception | 1000 | N/A |

If the errorcode is not present, or is any value other than those above, the exception will be handled by default, and a generic error message will be displayed to the end user. If there is no relevant information for errorid, it can be omitted.

When using Error Code 1000 please set the FaultString to be a textual description of the exception. This will then be logged within the system, and returned via methodfeedback for diagnostic purposes.

Note that a lease rate for a valid vehicle / option combination not being available is not an exception. The response will be produced as normal, without the “quote” element.

The Vehicle Leasing website will log GetRate requests and responses. A report will be available to site administrators showing failed calls by supplier.

## MaintainOrganisation method

This method will be called each time a site administrator creates or modifies an organisation.

Each supplier will be able to manually download a complete list of organisations from the Vehicle Leasing website in the event that their organisation database gets out of sync.

### Request



| **Node** | **Data Type** | **Description** |
| --- | --- | --- |
| requestid | GUID | Globally Unique Identifier (GUID) – generated by the vehicle leasing site and used to ensure the response matches the request |
| action | Enumeration | From Create, Edit, Delete |
| organisation/id | Positive Integer | Unique identifier for the organisation. Organisation IDs are assigned by the Vehicle Leasing website |
| organisation/profiles/profile/profilename |  | Name of the profile |
| organisation/profiles/profile/paymentmodel | Enumeration | From AnnualInAdvance, QuarterlyInAdvance, QuarterlyInArrears, MontlhyInAdvance, MonthlyInArrears |
| organisation/profiles/profile/service | boolean | Is service & maintenance included?Possible values: true or false |
| organisation/profiles/profile/ roadfundlicence | boolean | Is the road fund licence included?Possible values: true or false |
| organisation/reliefvehicle  | boolean | Is a relief vehicle included (28 days chargeable)?Possible values: true or false |
| organisation / period | Enumeration | Default lease period for the organisation. Number of years. Only 1 - 7 are valid. |
| organisation/name | String | Name of the organisation |
| organisation/address1 | String | First line of the organisation address |
| organisation/address2 | String | Second line of the organisation address |
| organisation/address3 | String | Third line of the organisation address. Optional |
| organisation/address4 | String | Fourth line of the organisation address. Optional |
| organisation/postcode | String | Postcode |

### Response



| **Node** | **Data Type** | **Description** |
| --- | --- | --- |
| requestid | GUID | Globally Unique Identifier (GUID) supplied with the request |
| action | Enumeration | From Create, Edit, Delete |
| organisationid | Positive Integer | Vehicle Leasing Site ID of the organisation that was Created, Edited or Deleted (as supplied in the request) |
| success | Boolean | Whether the operation succeeded |

Once the response is received from the MaintainOrganisation call, the lease portal will call the MethodFeedback method asynchronously (see section 3.3).

### Exceptions

The Vehicle Leasing website will not expect any exceptions in response to this method. It is up to the Suppliers to decide how to handle situations such as Editing or Deleting an organisation that they do not think exists.

## MethodFeedback method

After calling the GetRate and MaintainOrganisation methods, the Vehicle Leasing website will post MethodFeedback to provide statistics. It is not essential that the web service implements this method, but it is recommended. For example, if calls to GetRate were timing out, this information would be passed to the supplier via this method.

This method is called asynchronously immediately after the response is received from either the GetRate or MaintainOrganisation method call. The time taken to respond to this request is not included in the configurable time limit imposed by Crown Commercial Services administrators.

### Request



| **Field** | **Data Type** | **Description** |
| --- | --- | --- |
| requestid | GUID | The requestid that was supplied with the GetRate request |
| method | Enumeration | The method that was called |
| result | Enumeration | The result of the request. From Success, ClientFault, ServerFault, Timeout |
| start | Date/Time | Time when the request was made |
| end | Date/Time | Time when the response was received or the request timed out. |
| detail | String | Optional details of any exception. |

### Response

The Vehicle Leasing website will not audit requests & responses for MethodFeedback, it will simply check for an HTTP Status of 200 (OK).

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