



**PROJECT 825
NATIONAL RAIL ENQUIRIES
ONLINE JOURNEY PLANNER (OJP)**

**OJP WEB SERVICES
Real Time Journey Planner Services
User Guide**

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Thales Development Team

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DISTRIBUTION

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ISSUE RECORD

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1 Draft B	12/11/2010	Typos and other minor corrections
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8c	02/12/2014	Some very long examples abbreviated for readability
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OJP WEB SERVICES REAL TIME JOURNEY PLANNER SERVICES USER GUIDE

1. Introduction

This user guide describes how to write client calls to the Web Services for the OJP Real Time Journey Planner Services.

1.1 References

P82501005 - PROJECT 825 NATIONAL RAIL ENQUIRIES ONLINE JOURNEY PLANNER (OJP) Functional Design Specification XML Web Service.

2. Getting Started

2.1 Standards Compliance

The API is implemented to comply with the following specifications:

Standard Name	Version	Website
Simple Object Access Protocol (SOAP).	1.1	http://www.w3.org/TR/2000/NOTE-SOAP-20000508/
Web Service Description Language (WSDL)	1.1	http://www.w3.org/TR/2001/NOTE-wsdl-20010315

2.2 Development Platforms

The API works with current SOAP development environments, including, but not limited to, Spring, Apache Axis and Microsoft Visual Studio 2008 (.NET). For more information about Spring Web Services see <http://static.springsource.org/spring-ws/sites/2.0/>. For more information about Apache Axis 1.4, go to <http://ws.apache.org/axis/>. For more information about Microsoft Visual Studio see <http://msdn.microsoft.com/en-us/vstudio/default.aspx>.

2.3 Importing the WSDL(s) into your Development Environment

Once you have the WSDL file, you need to import it into your development platform so that your development environment can generate the necessary objects for use in building client Web service applications in that environment. This section provides sample instructions for

Apache Axis and Microsoft Visual Studio. For instructions about other development platforms, see your platform's product documentation.

2.3.1 Instructions for Java Environments (Apache Axis)

Java environments access the API through Java objects that serve as proxies for their server-side counterparts. Before using the API, you must first generate these objects from your the WSDL file(s).

Each SOAP client has its own tool for this process. For Apache Axis, use the WSDL2Java utility.

Before you run WSDL2Java, you must have Axis installed on your system and all of its component JAR files must be referenced in your classpath.

The basic syntax for WSDL2Java is:

```
java -classpath pathToJAR/Filename org.apache.axis.wsdl.WSDL2Java -a  
pathToWsd1/Wsd1Filename
```

The `-a` switch generates code for all elements, referenced or not, which may be necessary depending on your WSDL. For more information, see the WSDL2Java documentation.

If you have JAR files in more than one location, list them with a semicolon separating the files. For example, if the Axis JAR files are installed in `C:\axis-1.3`, and the WSDL is named `my.wsdl` and is stored in `C:\mywsdls`:

```
java -classpath c:\axis-1.3\lib\axis.jar;c:\axis-1.3\lib\axis-  
ant.jar;c:\axis-1.3\lib\axis-schema.jar;?c:\axis-1.3\lib\commons-discovery-  
0.2.jar;c:\axis-1.3\lib\commons-logging-1.0.4.jar;?c:\axis-  
1.3\lib\jaxrpc.jar;c:\axis-1.3\lib\log4j-1.2.8.jar;c:\axis-  
1.3\lib\saa.jar;?c:\axis-1.3\lib\wsdl4j-1.5.2.jar;c:\axis-  
1.3\mail.jar;c:\axis-1.3\activation.jar;c:\axis-1.3\wsdl4j.jar;  
org.apache.axis.wsdl.WSDL2Java -a C:\mywsdls\my_enterprise.wsdl
```

This command will generate a set of folders and Java source code files in the same directory in which it was run. After these files are compiled, they can be included in your Java programs for use in creating client applications.

For most Java development environments, you can use wizard-based tools for this process instead of the command line. For more information about using WSDL2Java, see <http://ws.apache.org/axis/java/reference.html>.

2.3.2 Instructions for Microsoft Visual Studio

Visual Studio languages access the API through objects that serve as proxies for their server-side counterparts. Before using the API, you must first generate these objects from your the WSDL file(s).

Visual Studio provides two approaches for importing your WSDL file and generating an XML Web service client: an IDE-based approach and a command line approach.

An XML Web service client is any component or application that references and uses an XML Web service. This does not necessarily need to be a client-based application. In fact, in many cases, your XML Web service clients might be other Web applications, such as Web

Forms or even other XML Web services. When accessing XML Web services in managed code, a proxy class and the .NET Framework handle all of the infrastructure coding.

To access an XML Web service from managed code:

- 1 Add a Web reference to your project for the XML Web service that you want to access. The Web reference creates a proxy class with methods that serve as proxies for each exposed method of the XML Web service.
- 2 Add the namespace for the Web reference.
- 3 Create an instance of the proxy class and then access the methods of that class as you would the methods of any other class.

To add a Web reference:

- 1 On the Project menu, choose **Add Web Reference**.
- 2 In the URL box of the Add Web Reference dialog box, type the URL to obtain the service description of the XML Web service you want to access, such as:

`file:///c:\WSDLFiles\my.wsdl`
- 3 Click **Go** to retrieve information about the XML Web service.
- 4 In the Web reference name box, rename the Web reference to the appropriate namespace - the namespace you will use for this Web reference.
- 5 Click **Add Reference** to add a Web reference for the target XML Web service. For more information, see the topic “Adding and Removing Web References” in the Visual Studio documentation.
- 6 Visual Studio retrieves the service description and generates a proxy class to interface between your application and the XML Web service.

3. Authentication

There are two types of authentication possible for accessing these web services :

- IP White Listing
- Username/password

The choice of which to use will depend on what application the web services are required for. In the case of an application running in a server environment and calling the web services from a specific place then IP White Listing can be used. A typical setup here would be another web site that wants to include information from OJP.

Where the web services will be called from many different IP addresses then the recommended setup is username/password. A typical setup here would be a smartphone application.

Note the above two options only apply to the OJP live environment.. If National Rail Enquiries permits access to the staging environment then both a specific IP address will be required from you and a username/password will be provided to you.

If you are given a username/password this must be sent as part of the HTTP transaction. The exact method of adding this is dependant upon the client side framework that you are using but a good page that describes it can be found at http://en.wikipedia.org/wiki/Basic_access_authentication

4. Available Operations

The following table lists the available operations for the Real-Time Web Service.

Operation	Usage
Departure Board	Makes a LiveDepartureBoard request
Real time Journey Plan	Makes a Real-time Journey Plan request..
Real time Calling Points	Makes a Real-time Journey Plan Calling Points request.
Postcode Journey Plan	Makes a Real-time Postcode Journey Plan request
Validate Postcode	Checks a given postcode is valid and recognised
Extended Journey Planner	Makes an Extended Journey Planner request.
JourneyCyclePolicy	Makes a request for the Cycle Policy for a specified Journey
TOCCyclePolicy	Makes a request for the default Cycle Policy for a specified TOC

5. API

5.1 WSDL (Web Service Definition Language)

The WSDL file(s) defines the API for the Web services. It can be found at <http://ojp.nationalrail.co.uk/webservices/jpdlr.wsdl> . (You will only be able to access this once your account has been setup)

There are comments within the WSDL itself to explain some of the specific fields in a bit more detail.

5.2 Selection of Operation

With Web service SOAP messages there are different methods of determining which operation to invoke. For all Web services described in this document the operation to invoke is determined based on the message payload content. It is not necessary to specify the operation explicitly in the SOAP header. Thus, for example, if a `DepartureBoardRequest` object is passed in the SOAP body then the Departure Board operation will be invoked.

5.3 Message Types

Operation	Input Message Type	Output Message Type	Error Message Type
Departure Board	DepartureBoardRequest	DepartureBoardResponse	DepartureBoardFault
Real time Journey Plan	RealtimeJourneyPlanRequest	RealtimeJourneyPlanResponse	RealtimeJourneyPlanFault
Real time Calling Points	RealtimeCallingPointsRequest	RealtimeCallingPointsResponse	RealtimeCallingPointsFault
Postcode Journey Plan	PostcodeJourneyPlanRequest	PostcodeJourneyPlanResponse	PostcodeJourneyPlanFault
Validate Postcode	ValidatePostcodeRequest	ValidatePostcodeResponse	ValidatePostcodeFault
TOCCyclePolicy	TOCCyclePolicyRequest	TOCCyclePolicyResponse	N/A*
JourneyCyclePolicy	JourneyCyclePolicyRequest	JourneyCyclePolicyResponse	N/A*
ExtendedJourneyPlanner	ExtendedJourneyPlannerRequest	ExtendedJourneyPlannerResponse	ExtendedJourneyPlannerFault

- Errors for TOCCyclePolicy and JourneyCyclePolicy are returned as part of the response. No separate messages are required.

5.4 Primitive Data Types

Primitive data types are basic types such as string, dateTime, integer and NMTOKEN.

These are specified in the World Wide Web Consortium's publication *XML Schema Part 2: Data Types* at the following URL: <http://www.w3.org/TR/xmlschema-2/>.

5.5 Namespaces

Namespaces for use with XML tags are specified in the WSDL file(s). When making client calls using the API these namespaces must be included in the request XML.

5.6 Internationalisation and Character Sets

The API supports either the full Unicode character set.

5.7 XML Compliance

The API is based on XML, which requires all documents to be well formed. Part of that requirement is that certain Unicode characters are not allowed in an XML document, even in an escaped form, and that others must be encoded according to their location. Normally any standard SOAP or XML client handles this for you. Clients must be able to parse any normal XML escape sequence, and must not pass up invalid XML characters.

Some characters, as mentioned, are illegal even if they are escaped. The illegal characters include the Unicode surrogate blocks and a few other Unicode characters. All are seldom-used control characters that are usually not important in any data, and tend to cause problems with many programs. Although they are not allowed in XML documents, they are allowed in HTML documents and may be present in some data. The illegal characters will be stripped from any API response.

The following characters are illegal:

- 0xFFFE
- 0xFFFF
- Control characters 0x0 - 0x19, except the following characters, which are legal: 0x9, 0xA, 0xD, tab, new line, and carriage return)
- 0xD800 - 0xDFFF

For more information about XML characters and character sets see <http://www.w3.org/TR/REC-xml#charsets>.

5.8 Characteristics of API Calls

All API calls are:

- **Service Requests and Responses.** Your client application prepares and submits a service request to the Web Service via the API, the Web Service processes the request and returns a response, and the client application handles the response.
- **Synchronous.** Once the API call is invoked, your client application waits until it receives a response from the service. Asynchronous calls are not supported.

- **Committed Atomically.** Every operation that writes data is committed atomically and automatically. Therefore an operation always succeeds entirely or fails – it never partially succeeds.

6. Error Handling

6.1 Errors common to all Operations

All error types are defined in the ResponseEnum type.

The following error types are applicable to all or several operations.

Error Type
OJP_OTHER_ERROR

6.2 Errors particular to individual Operations

All error types are defined in the ResponseEnum type.

Operation	Error Type
Departure Board	STATION_DOES_NOT_EXIST
Departure Board	DEPARTURE_BOARD_TIMEOUT
Real time Journey Plan	STATION_DOES_NOT_EXIST
Real time Journey Plan	OUTWARD_DATE_IN_THE_PAST
Real time Journey Plan	RETURN_DATE_IN_THE_PAST
Real time Journey Plan	RETURN_DATE_TIME_BEFORE_OUTWARD_DATE
Real time Journey Plan	NO_JOURNEYS_FOUND
Real time Journey Plan	JOURNEY_PLAN_TIMEOUT
Real time Journey Plan	JOURNEY_PLAN_BAD_SEARCH_STATUS
Real time Journey Plan	JOURNEY_PLAN_NRS_ERROR
Real time Journey Plan	JOURNEY_PLAN_NRS_BAD_STATUS
Real time Journey Plan	JOURNEY_PLAN_ERROR
Real time Journey Plan	UNKNOWN_RAILCARD_CODE
Real time Journey Plan	TRAIN_OPERATING_COMPANY_NOT_FOUND
Real time Journey Plan	INVALID_AVOID_STATION
Real time Journey Plan	AVOID_STATION_SAME_AS_FROM
Real time Journey Plan	AVOID_STATION_SAME_AS_TO
Real time Journey Plan	INVALID_EXCLUDE_STATION
Real time Journey Plan	INTERCHANGE_STATION_SAME_AS_TO
Real time Journey Plan	EXCLUDE_STATION_SAME_AS_FROM
Real time Journey Plan	EXCLUDE_STATION_SAME_AS_TO
Real time Journey Plan	INVALID_INCLUDE_STATION
Real time Journey Plan	INCLUDE_STATION_SAME_AS_FROM
Real time Journey Plan	INVALID_VIA_STATION
Real time Journey Plan	VIA_STATION_SAME_AS_FROM
Real time Journey Plan	VIA_STATION_SAME_AS_TO
Real time Journey Plan	INVALID_INTERCHANGE_STATION
Real time Journey Plan	INTERCHANGE_STATION_SAME_AS_FROM
Real time Calling Points	STATION_DOES_NOT_EXIST
Real time Calling Points	MATCHING_JOURNEY_NOT_FOUND
Real time Calling Points	JOURNEY_PLAN_TIMEOUT
Real time Calling Points	JOURNEY_PLAN_BAD_SEARCH_STATUS
Real time Calling Points	JOURNEY_PLAN_NRS_ERROR
Real time Calling Points	JOURNEY_PLAN_NRS_BAD_STATUS

Real time Calling Points	JOURNEY_PLAN_ERROR
Postcode Journey Plan	STATION_DOES_NOT_EXIST
Postcode Journey Plan	OUTWARD_DATE_IN_THE_PAST
Postcode Journey Plan	RETURN_DATE_IN_THE_PAST
Postcode Journey Plan	RETURN_DATE_TIME_BEFORE_OUTWARD_DATE
Postcode Journey Plan	NO_JOURNEYS_FOUND
Postcode Journey Plan	JOURNEY_PLAN_TIMEOUT
Postcode Journey Plan	JOURNEY_PLAN_BAD_SEARCH_STATUS
Postcode Journey Plan	JOURNEY_PLAN_NRS_ERROR
Postcode Journey Plan	JOURNEY_PLAN_NRS_BAD_STATUS
Postcode Journey Plan	JOURNEY_PLAN_ERROR
Postcode Journey Plan	UNKNOWN_RAILCARD_CODE
Postcode Journey Plan	TRAIN_OPERATING_COMPANY_NOT_FOUND
Postcode Journey Plan	INVALID_AVOID_STATION
Postcode Journey Plan	AVOID_STATION_SAME_AS_FROM
Postcode Journey Plan	AVOID_STATION_SAME_AS_TO
Postcode Journey Plan	INVALID_EXCLUDE_STATION
Postcode Journey Plan	INTERCHANGE_STATION_SAME_AS_TO
Postcode Journey Plan	EXCLUDE_STATION_SAME_AS_FROM
Postcode Journey Plan	EXCLUDE_STATION_SAME_AS_TO
Postcode Journey Plan	INVALID_INCLUDE_STATION
Postcode Journey Plan	INCLUDE_STATION_SAME_AS_FROM
Postcode Journey Plan	INVALID_VIA_STATION
Postcode Journey Plan	VIA_STATION_SAME_AS_FROM
Postcode Journey Plan	VIA_STATION_SAME_AS_TO
Postcode Journey Plan	INVALID_INTERCHANGE_STATION
Postcode Journey Plan	INTERCHANGE_STATION_SAME_AS_FROM
Postcode Journey Plan	POSTCODE_MUST_BE_PROVIDED
Postcode Journey Plan	POSTCODE_DOES_NOT_HAVE_ANY_STATIONS
Postcode Journey Plan	POSTCODE_NOT_ALLOWED_FOR_FROM_AND_TO
Validate Postcode	INVALID_POSTCODE
Validate Postcode	POSTCODE_DOES_NOT_HAVE_ANY_STATIONS

6.3 Error Messages

Error Type	Error Message	Action Required
STATION_DOES_NOT_EXIST	The CRS code entered for the station (or group station) is not recognised.	Correct the offending CRS code.
UNKNOWN_RAILCARD_CODE	The rail card code provided for a fare look up is invalid or has not been recognised.	Provide a valid railcard code for the fares lookup request.
DEPARTURE_BOARD_TIMEOUT	Departure board request to RTJP timed out.	Re-send the request. If the timeout exception still occurs, raise issue with the web service support team.
OUTWARD_DATE_IN_THE_PAST	The outward date time provided is too far in the past.	Provide an outward time no earlier than 30 minutes before 'now'.
RETURN_DATE_IN_THE_PAST	The inward date time provided is too far in the past.	Ensure inward time is after the outward time, and the outward time is no earlier than 30 minutes before now.

RETURN_DATE_TIME_BEFORE_OUTWARD_DATE	The inward date time is before the outward date time.	Change the inward date time to be after the outward date time.
NO_JOURNEYS_FOUND	No journeys were found for the journey plan request.	Numerous possible reasons for this. Could be an issue with RTJP, or there are genuinely no journeys present for the request parameters. Try changing outward date time.
JOURNEY_PLAN_TIMEOUT	Journey plan request to RTJP timed out.	Re-send the request. If after a few attempts the timeout exception still occurs, raise issue with the web service support team.
JOURNEY_PLAN_BAD_SEARCH_STATUS	RTJP error.	No action.
JOURNEY_PLAN_ERROR	Unexpected RTJP error or response returned from RTJP was considered invalid.	Re-send the request. Otherwise, no action.
JOURNEY_PLAN_NRS_ERROR	NRS is either unavailable or fares returned from NRS are invalid.	No action.
JOURNEY_PLAN_NRS_BAD_STATUS	RTJP error. NRS status corrupted.	No action.
MATCHING_JOURNEY_NOT_FOUND	No journey was found matching any services currently running.	Perform a real time journey plan and obtain from its response a valid journey. It's important to get the departure and arrival date and time correctly.
TRAIN_OPERATING_COMPANY_NOT_FOUND	No Train Operating Company (TOC) was found with the given code.	Provide a valid operator code.
INVALID_VIA_STATION	The 'Via' station provided is a Dockland Light Railway or London Underground Station.	Provide a national rail station for the 'Via' entry.
VIA_STATION_SAME_AS_FROM	The 'Via' station is the same as the 'From' station provided.	Change the 'Via' or 'From' station so they are different.
VIA_STATION_SAME_AS_TO	The 'Via' station is the same as the 'To' station provided.	Change the 'Via' or 'To' station so they are different.
INVALID_AVOID_STATION	The 'Avoid' station provided is a Dockland Light Railway or London Underground Station.	Provide a national rail station for the 'Avoid' entry.
AVOID_STATION_SAME_AS_FROM	The 'Avoid' station is the same as the 'From' station provided.	Change the 'Avoid' or 'From' station so they are different.
AVOID_STATION_SAME_AS_TO	The 'Avoid' station is the same as the 'To' station provided.	Change the 'Avoid' or 'To' station so they are different.
INVALID_EXCLUDE_STATION	The 'Exclude' station provided is a Dockland Light Railway or London Underground Station.	Provide a national rail station for the 'Exclude' entry.
EXCLUDE_STATION_SAME_AS_FROM	The 'Exclude' station is the same as the 'From' station provided.	Change the 'Exclude' or 'From' station so they are different.
EXCLUDE_STATION_SAME_AS_TO	The 'Exclude' station is the same as the 'To' station provided.	Change the 'Exclude' or 'To' station so they are different.
INVALID_INCLUDE_STATION	The 'Include' station provided is a Dockland Light Railway or London Underground Station.	Provide a national rail station for the 'Include' entry.
INCLUDE_STATION_SAME_AS_FROM	The 'Include' station is the same as the 'From' station provided.	Change the 'Include' or 'From' station so they are different.
INCLUDE_STATION_SAME_AS_TO	The 'Include' station is the same as the 'To' station provided.	Change the 'Include' or 'To' station so they are different.
INVALID_INTERCHANGE_STATION	The 'Interchange' station provided is a Dockland Light Railway or London Underground Station.	Provide a national rail station for the 'Interchange' entry.
INTERCHANGE_STATION_SAME_AS_FROM	The 'Interchange' station is the same as the 'From' station provided.	Change the 'Interchange' or 'From' station so they are different.
INTERCHANGE_STATION_SAME_AS_TO	The 'Interchange' station is the same as the 'To' station provided.	Change the 'Interchange' or 'To' station so they are different.

POSTCODE_MUST_BE_PROVIDED	A postcode has not been provided for either the 'From' or 'To' location.	Enter a postcode for either the 'From' or 'To' location.
POSTCODE_DOES_NOT_HAVE_ANY_STATIONS	The postcode provided does not have stations associated with it.	No action.
POSTCODE_NOT_ALLOWED_FOR_FROM_AND_TO	Postcodes cannot be entered for both the 'From' and 'To' location. Postcode to postcode journey plans are not allowed.	Replace either the 'From' or 'To' with a station.
ARRIVAL_BEFORE_DEPARTURE	The arrival time of the specified journey is before the departure time.	Change the arrival time to be after the departure time.
RETURN_DATE_BEFORE_OUTWARD_DATE	The return train times are before the outward train times.	Change the return train times to be after the outward train times.
OUTWARD_DATE_TIME_IN_THE_PAST	The outward date is in the past.	Change the outward date to be in the future.

6.4 Real Time Calling Points Search Status Errors

Unlike the other operations, the Real Time Calling Points has an individual search status type for each 'Leg' element in the response. This is defined in the CallingPointsSearchStatus type. It is possible to receive a valid response yet have an individual 'Leg' in the response contain an error. The following are errors applicable to a 'Leg' in the Real Time Calling Points Response.

Operation	Error Type
Real time Calling Points	UNABLE_TO_RETRIEVE_CALLING_POINTS

6.5 Real Time Calling Points Error Messages

Error Type	Error Message	Action Required
UNABLE_TO_RETRIEVE_CALLING_POINTS	No calling points were retrieved from RTJP for the particular leg.	No action.

7. Examples

7.1 DepartureBoard

The OJP DepartureBoard function is only available for legacy reasons, and clients should use the Darwin Webservice in preference.

Please refer to NRE if you believe you need information regarding the OJP DepartureBoard function.

7.2 RealtimeJourneyPlan

7.2.1 Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:jps="http://www.thalesgroup.com/ojp/jpdlr"
  xmlns:com="http://www.thalesgroup.com/ojp/common">
  <soapenv:Header/>
  <soapenv:Body>
    <jps:RealtimeJourneyPlanRequest>
      <jps:origin>
        <com:stationCRS>COV</com:stationCRS>
      </jps:origin>
      <jps:destination>
        <com:stationCRS>CDF</com:stationCRS>
      </jps:destination>
      <jps:realtimeEnquiry>STANDARD</jps:realtimeEnquiry>
      <jps:outwardTime>
        <jps:departBy>2009-09-04T10:30:00</jps:departBy>
      </jps:outwardTime>
      <jps:directTrains>false</jps:directTrains>
    </jps:RealtimeJourneyPlanRequest>
  </soapenv:Body>
</soapenv:Envelope>
```

7.2.2 Response

Note : response shortened to reduce repetition

```
<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/">
  <SOAP-ENV:Header/>
  <SOAP-ENV:Body>
    <ns2:RealtimeJourneyPlanResponse
      xmlns:ns2="http://www.thalesgroup.com/ojp/jpdlr"
      xmlns:ns3="http://www.thalesgroup.com/ojp/common">
      <ns3:response>Ok</ns3:response>
      <ns2:outwardJourney>
        <ns2:id>1</ns2:id>
        <ns2:origin>COV</ns2:origin>
        <ns2:destination>CDF</ns2:destination>
        <ns2:realtimeClassification>ONTIME</ns2:realtimeClassification>
        <ns2:timetable>
          <ns2:scheduled>
            <ns2:departure>2009-09-04T10:49:00.000+01:00</ns2:departure>
            <ns2:arrival>2009-09-04T13:31:00.000+01:00</ns2:arrival>
          </ns2:scheduled>
          <ns2:realtime/>
        </ns2:timetable>
        <ns2:leg>
          <ns2:id>1</ns2:id>
          <ns2:origin>COV</ns2:origin>
          <ns2:destination>BHM</ns2:destination>
          <ns2:realtimeClassification>ONTIME</ns2:realtimeClassification>
          <ns2:mode>TRAIN</ns2:mode>
          <ns2:operator>LM</ns2:operator>
          <ns2:timetable>
            <ns2:scheduled>
              <ns2:departure>2009-09-04T10:49:00.000+01:00</ns2:departure>
              <ns2:arrival>2009-09-04T11:17:00.000+01:00</ns2:arrival>
            </ns2:scheduled>
          </ns2:timetable>
        </ns2:leg>
      </ns2:outwardJourney>
    </ns2:RealtimeJourneyPlanResponse>
  </SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

```

    </ns2:scheduled>
    <ns2:realtime>
      <ns2:departure>2009-09-04T10:50:00.000+01:00</ns2:departure>
      <ns2:arrival>2009-09-04T11:17:00.000+01:00</ns2:arrival>
    </ns2:realtime>
  </ns2:timetable>
</ns2:leg>
<ns2:leg>
  <ns2:id>2</ns2:id>
  <ns2:origin>BHM</ns2:origin>
  <ns2:destination>CDF</ns2:destination>
  <ns2:realtimeClassification>ONTIME</ns2:realtimeClassification>
  <ns2:mode>TRAIN</ns2:mode>
  <ns2:operator>XC</ns2:operator>
  <ns2:timetable>
    <ns2:scheduled>
      <ns2:departure>2009-09-04T11:30:00.000+01:00</ns2:departure>
      <ns2:arrival>2009-09-04T13:31:00.000+01:00</ns2:arrival>
    </ns2:scheduled>
    <ns2:realtime>
      <ns2:departure>2009-09-04T11:30:00.000+01:00</ns2:departure>
      <ns2:arrival>2009-09-04T13:31:00.000+01:00</ns2:arrival>
    </ns2:realtime>
  </ns2:timetable>
</ns2:leg>
</ns2:outwardJourney>
<ns2:outwardJourney>
  <ns2:id>2</ns2:id>
  <ns2:origin>COV</ns2:origin>
  <ns2:destination>CDF</ns2:destination>
  <ns2:realtimeClassification>ONTIME</ns2:realtimeClassification>
  <ns2:timetable>
    <ns2:scheduled>
      <ns2:departure>2009-09-04T11:02:00.000+01:00</ns2:departure>
      <ns2:arrival>2009-09-04T13:48:00.000+01:00</ns2:arrival>
    </ns2:scheduled>
    <ns2:realtime/>
  </ns2:timetable>
<ns2:leg>
  <ns2:id>1</ns2:id>
  <ns2:origin>COV</ns2:origin>
  <ns2:destination>BHM</ns2:destination>
  <ns2:realtimeClassification>ONTIME</ns2:realtimeClassification>
  <ns2:mode>TRAIN</ns2:mode>
  <ns2:operator>VT</ns2:operator>
  <ns2:timetable>
    <ns2:scheduled>
      <ns2:departure>2009-09-04T11:02:00.000+01:00</ns2:departure>
      <ns2:arrival>2009-09-04T11:27:00.000+01:00</ns2:arrival>
    </ns2:scheduled>
    <ns2:realtime>
      <ns2:departure>2009-09-04T11:02:00.000+01:00</ns2:departure>
      <ns2:arrival>2009-09-04T11:27:00.000+01:00</ns2:arrival>
    </ns2:realtime>
  </ns2:timetable>
</ns2:leg>
<ns2:leg>
  <ns2:id>2</ns2:id>
  <ns2:origin>BHM</ns2:origin>
  <ns2:destination>BPW</ns2:destination>
  <ns2:realtimeClassification>ONTIME</ns2:realtimeClassification>
  <ns2:mode>TRAIN</ns2:mode>
  <ns2:operator>XC</ns2:operator>

```

```

<ns2:timetable>
  <ns2:scheduled>
    <ns2:departure>2009-09-04T11:42:00.000+01:00</ns2:departure>
    <ns2:arrival>2009-09-04T12:56:00.000+01:00</ns2:arrival>
  </ns2:scheduled>
  <ns2:realtime>
    <ns2:departure>2009-09-04T11:42:00.000+01:00</ns2:departure>
    <ns2:arrival>2009-09-04T12:56:00.000+01:00</ns2:arrival>
  </ns2:realtime>
</ns2:timetable>
</ns2:leg>
<ns2:leg>
  <ns2:id>3</ns2:id>
  <ns2:origin>BPW</ns2:origin>
  <ns2:destination>CDF</ns2:destination>
  <ns2:realtimeClassification>ONTIME</ns2:realtimeClassification>
  <ns2:mode>TRAIN</ns2:mode>
  <ns2:operator>GW</ns2:operator>
  <ns2:timetable>
    <ns2:scheduled>
      <ns2:departure>2009-09-04T13:07:00.000+01:00</ns2:departure>
      <ns2:arrival>2009-09-04T13:48:00.000+01:00</ns2:arrival>
    </ns2:scheduled>
    <ns2:realtime>
      <ns2:departure>2009-09-04T13:07:00.000+01:00</ns2:departure>
      <ns2:arrival>2009-09-04T13:48:00.000+01:00</ns2:arrival>
    </ns2:realtime>
  </ns2:timetable>
</ns2:leg>
</ns2:outwardJourney>
</ns2:RealtimeJourneyPlanResponse>
</SOAP-ENV:Body>
</SOAP-ENV:Envelope>

```

7.2.3 Request

In this example, the Web Service users is configured for Service Origin and Destination timetable info/

```

<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:jpd="http://www.thalesgroup.com/ojp/jpdItr" xmlns:com="http://www.thalesgroup.com/ojp/common">
  <soapenv:Header/>
  <soapenv:Body>
    <jpd:RealtimeJourneyPlanRequest>
      <jpd:origin>
        <com:stationCRS>MAN</com:stationCRS>
      </jpd:origin>
      <jpd:destination>
        <com:stationCRS>EUS</com:stationCRS>
      </jpd:destination>
      <jpd:realtimeEnquiry>STANDARD</jpd:realtimeEnquiry>
      <jpd:outwardTime>
        <jpd:departBy>2013-08-22T17:03:12.016+01:00</jpd:departBy>
      </jpd:outwardTime>
      <jpd:directTrains>>false</jpd:directTrains>
    </jpd:RealtimeJourneyPlanRequest>
  </soapenv:Body>
</soapenv:Envelope>

```

7.2.4 Repsonse

Response shortened to aid readability

```
<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/">
  <SOAP-ENV:Header/>
  <SOAP-ENV:Body>
    <ns2:RealtimeJourneyPlanResponse xmlns:ns2="http://www.thalesgroup.com/ojp/jpdlr"
      xmlns:ns3="http://www.thalesgroup.com/ojp/common"
      xmlns:ns4="http://ojp.nationalrail.co.uk/schemas/FulfilmentHandoff">
      <ns3:response>Ok</ns3:response>
      <ns2:generatedTime>2013-08-09T10:40:22.969+01:00</ns2:generatedTime>
      <ns2:outwardJourney>
        <ns2:id>1</ns2:id>
        <ns2:origin>MAN</ns2:origin>
        <ns2:destination>EUS</ns2:destination>
        <ns2:realtimeClassification>NORMAL</ns2:realtimeClassification>
        <ns2:vstpService>false</ns2:vstpService>
        <ns2:timetable>
          <ns2:scheduled>
            <ns2:departure>2013-08-22T17:15:00.000+01:00</ns2:departure>
            <ns2:arrival>2013-08-22T19:25:00.000+01:00</ns2:arrival>
          </ns2:scheduled>
          <ns2:realtime/>
        </ns2:timetable>
        <ns2:leg>
          <ns2:id>1</ns2:id>
          <ns2:board>
            <ns2:crsCode>MAN</ns2:crsCode>
            <ns2:stationType>NR</ns2:stationType>
          </ns2:board>
          <ns2:alight>
            <ns2:crsCode>EUS</ns2:crsCode>
            <ns2:stationType>NR</ns2:stationType>
          </ns2:alight>
          <ns2:originInstants>
            <ns3:stationCRS>MAN</ns3:stationCRS>
            <ns3:scheduledTime>2013-08-22T17:15:00.000+01:00</ns3:scheduledTime>
          </ns2:originInstants>
          <ns2:destinationInstants>
            <ns3:stationCRS>EUS</ns3:stationCRS>
            <ns3:scheduledTime>2013-08-22T19:25:00.000+01:00</ns3:scheduledTime>
          </ns2:destinationInstants>
          <ns2:originPlatform>5</ns2:originPlatform>
          <ns2:destinationPlatform>6</ns2:destinationPlatform>
          <ns2:realtimeClassification>NORMAL</ns2:realtimeClassification>
          <ns2:mode>TRAIN</ns2:mode>
          <ns2:operator>
            <ns3:code>VT</ns3:code>
            <ns3:name>Virgin Trains</ns3:name>
          </ns2:operator>
          <ns2:timetable>
            <ns2:scheduled>
              <ns2:departure>2013-08-22T17:15:00.000+01:00</ns2:departure>
              <ns2:arrival>2013-08-22T19:25:00.000+01:00</ns2:arrival>
            </ns2:scheduled>
            <ns2:realtime/>
          </ns2:timetable>
        </ns2:leg>
      </ns2:outwardJourney>
      <ns2:outwardJourney>
        <ns2:id>2</ns2:id>
        <ns2:origin>MAN</ns2:origin>
```

```

<ns2:destination>EUS</ns2:destination>
<ns2:realtimeClassification>NORMAL</ns2:realtimeClassification>
<ns2:vstpService>false</ns2:vstpService>
<ns2:timetable>
  <ns2:scheduled>
    <ns2:departure>2013-08-22T17:35:00.000+01:00</ns2:departure>
    <ns2:arrival>2013-08-22T19:42:00.000+01:00</ns2:arrival>
  </ns2:scheduled>
  <ns2:realtime/>
</ns2:timetable>
<ns2:leg>
  <ns2:id>1</ns2:id>
  <ns2:board>
    <ns2:crsCode>MAN</ns2:crsCode>
    <ns2:stationType>NR</ns2:stationType>
  </ns2:board>
  <ns2:alight>
    <ns2:crsCode>EUS</ns2:crsCode>
    <ns2:stationType>NR</ns2:stationType>
  </ns2:alight>
  <ns2:originInstants>
    <ns3:stationCRS>MAN</ns3:stationCRS>
    <ns3:scheduledTime>2013-08-22T17:35:00.000+01:00</ns3:scheduledTime>
  </ns2:originInstants>
  <ns2:destinationInstants>
    <ns3:stationCRS>EUS</ns3:stationCRS>
    <ns3:scheduledTime>2013-08-22T19:42:00.000+01:00</ns3:scheduledTime>
  </ns2:destinationInstants>
  <ns2:originPlatform>6</ns2:originPlatform>
  <ns2:destinationPlatform>2</ns2:destinationPlatform>
  <ns2:realtimeClassification>NORMAL</ns2:realtimeClassification>
  <ns2:mode>TRAIN</ns2:mode>
  <ns2:operator>
    <ns3:code>VT</ns3:code>
    <ns3:name>Virgin Trains</ns3:name>
  </ns2:operator>
  <ns2:timetable>
    <ns2:scheduled>
      <ns2:departure>2013-08-22T17:35:00.000+01:00</ns2:departure>
      <ns2:arrival>2013-08-22T19:42:00.000+01:00</ns2:arrival>
    </ns2:scheduled>
    <ns2:realtime/>
  </ns2:timetable>
</ns2:leg>
</ns2:outwardJourney>
</ns2:RealtimeJourneyPlanResponse>
</SOAP-ENV:Body>
</SOAP-ENV:Envelope>

```


7.3 RealtimeCallingPoints

7.3.1 Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:jps="http://www.thalesgroup.com/ojp/jpdlr">
  <soapenv:Header/>
  <soapenv:Body>
    <jps:RealtimeCallingPointsRequest>
      <jps:origin>COV</jps:origin>
      <jps:destination>CDF</jps:destination>
      <jps:departure>2009-09-04T10:49:00</jps:departure>
      <jps:arrival>2009-09-04T13:31:00</jps:arrival>
    </jps:RealtimeCallingPointsRequest>
  </soapenv:Body>
</soapenv:Envelope>
```

7.3.2 Response

Note : response shortened to reduce repetition

```
<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/">
  <SOAP-ENV:Header/>
  <SOAP-ENV:Body>
    <ns2:RealtimeCallingPointsResponse
      xmlns:ns2="http://www.thalesgroup.com/ojp/jpdlr"
      xmlns:ns3="http://www.thalesgroup.com/ojp/common">
      <ns3:response>Ok</ns3:response>
      <ns2:origin>EUS</ns2:origin>
      <ns2:destination>BTN</ns2:destination>
      <ns2:leg>
        <ns2:id>1</ns2:id>
        <ns2:origin>COV</ns2:origin>
        <ns2:destination>BHM</ns2:destination>
        <ns2:departure>2009-09-04T10:49:00.000+01:00</ns2:departure>
        <ns2:arrival>2009-09-04T11:17:00.000+01:00</ns2:arrival>
        <ns2:searchStatus>Ok</ns2:searchStatus>
        <ns2:realtimeCallingPoint>
          <ns2:station>COV</ns2:station>
          <ns2:board>true</ns2:board>
          <ns2:timetable>
            <ns2:scheduled>
              <ns2:arrive>2009-09-04T10:49:00.000+01:00</ns2:arrive>
              <ns2:depart>2009-09-04T10:49:00.000+01:00</ns2:depart>
            </ns2:scheduled>
            <ns2:realtime>
              <ns2:arrive>2009-09-04T10:49:00.000+01:00</ns2:arrive>
              <ns2:depart>2009-09-04T10:50:00.000+01:00</ns2:depart>
            </ns2:realtime>
          </ns2:timetable>
        </ns2:realtimeCallingPoint>
        <ns2:realtimeCallingPoint>
          <ns2:station>THL</ns2:station>
          <ns2:timetable>
            <ns2:scheduled>
              <ns2:arrive>2009-09-04T10:54:00.000+01:00</ns2:arrive>
              <ns2:depart>2009-09-04T10:54:00.000+01:00</ns2:depart>
            </ns2:scheduled>
            <ns2:realtime>
              <ns2:arrive>2009-09-04T10:54:00.000+01:00</ns2:arrive>
            </ns2:realtime>
          </ns2:timetable>
        </ns2:realtimeCallingPoint>
      </ns2:leg>
    </ns2:RealtimeCallingPointsResponse>
  </SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

```

        <ns2:depart>2009-09-04T10:55:00.000+01:00</ns2:depart>
      </ns2:realtime>
    </ns2:timetable>
  </ns2:realtimeCallingPoint>
  <ns2:realtimeCallingPoint>
    <ns2:station>HIA</ns2:station>
    <ns2:timetable>
      <ns2:scheduled>
        <ns2:arrive>2009-09-04T11:00:00.000+01:00</ns2:arrive>
        <ns2:depart>2009-09-04T11:00:00.000+01:00</ns2:depart>
      </ns2:scheduled>
      <ns2:realtime>
        <ns2:arrive>2009-09-04T11:00:00.000+01:00</ns2:arrive>
        <ns2:depart>2009-09-04T11:01:00.000+01:00</ns2:depart>
      </ns2:realtime>
    </ns2:timetable>
  </ns2:realtimeCallingPoint>
  <ns2:realtimeCallingPoint>
    <ns2:station>BHI</ns2:station>
    <ns2:timetable>
      <ns2:scheduled>
        <ns2:arrive>2009-09-04T11:04:00.000+01:00</ns2:arrive>
        <ns2:depart>2009-09-04T11:04:00.000+01:00</ns2:depart>
      </ns2:scheduled>
      <ns2:realtime>
        <ns2:arrive>2009-09-04T11:04:00.000+01:00</ns2:arrive>
        <ns2:depart>2009-09-04T11:05:00.000+01:00</ns2:depart>
      </ns2:realtime>
    </ns2:timetable>
  </ns2:realtimeCallingPoint>
  <ns2:realtimeCallingPoint>
    <ns2:station>MGN</ns2:station>
    <ns2:timetable>
      <ns2:scheduled>
        <ns2:arrive>2009-09-04T11:07:00.000+01:00</ns2:arrive>
        <ns2:depart>2009-09-04T11:07:00.000+01:00</ns2:depart>
      </ns2:scheduled>
      <ns2:realtime>
        <ns2:arrive>2009-09-04T11:07:00.000+01:00</ns2:arrive>
        <ns2:depart>2009-09-04T11:08:00.000+01:00</ns2:depart>
      </ns2:realtime>
    </ns2:timetable>
  </ns2:realtimeCallingPoint>
  <ns2:realtimeCallingPoint>
    <ns2:station>BHM</ns2:station>
    <ns2:alight>true</ns2:alight>
    <ns2:timetable>
      <ns2:scheduled>
        <ns2:arrive>2009-09-04T11:17:00.000+01:00</ns2:arrive>
      </ns2:scheduled>
    </ns2:timetable>
  </ns2:realtimeCallingPoint>
</ns2:leg>
</ns2:RealtimeCallingPointsResponse>
</SOAP-ENV:Body>
</SOAP-ENV:Envelope>

```

7.4 PostcodeJourneyPlan

7.4.1 Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:jpd="http://www.thalesgroup.com/ojp/jpdlr" xmlns:com="http://www.thalesgroup.com/ojp/common">
  <soapenv:Header/>
  <soapenv:Body>
    <jpd:PostcodeJourneyPlanRequest>
      <jpd:origin>
        <com:postcodeDetails>
          <com:postcode>SK30XB</com:postcode>
        </com:postcodeDetails>
      </jpd:origin>
      <jpd:destination>
        <com:station>
          <com:stationCRS>EUS</com:stationCRS>
        </com:station>
      </jpd:destination>
      <jpd:realtimeEnquiry>STANDARD</jpd:realtimeEnquiry>
      <jpd:outwardTime>
        <jpd:departBy>2011-07-25T10:00:00</jpd:departBy>
      </jpd:outwardTime>
      <jpd:directTrains>false</jpd:directTrains>
    </jpd:PostcodeJourneyPlanRequest>
  </soapenv:Body>
</soapenv:Envelope>
```

7.4.2 Response

```
<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/">
  <SOAP-ENV:Header/>
  <SOAP-ENV:Body>
    <ns2:PostcodeJourneyPlanResponse
xmlns:ns2="http://www.thalesgroup.com/ojp/jpdlr" xmlns:ns3="http://www.thalesgroup.com/ojp/common">
      <ns3:response>Ok</ns3:response>
      <ns2:generatedTime>2011-07-22T14:53:10.906+01:00</ns2:generatedTime>
      <ns2:postcodeResponse>
        <ns2:generatedTime>2011-07-22T14:53:10.906+01:00</ns2:generatedTime>
        <ns2:selectedStation>MIA</ns2:selectedStation>
        <ns2:outwardJourney>
          <ns2:id>1</ns2:id>
          <ns2:origin>MIA</ns2:origin>
          <ns2:destination>EUS</ns2:destination>
          <ns2:realtimeClassification>NORMAL</ns2:realtimeClassification>
          <ns2:timetable>
            <ns2:scheduled>
              <ns2:departure>2011-07-25T10:11:00.000+01:00</ns2:departure>
              <ns2:arrival>2011-07-25T12:38:00.000+01:00</ns2:arrival>
            </ns2:scheduled>
            <ns2:realtime/>
          </ns2:timetable>
          <ns2:leg>
            <ns2:id>1</ns2:id>
            <ns2:board>
              <ns2:crsCode>MIA</ns2:crsCode>
              <ns2:stationType>NR</ns2:stationType>
            </ns2:board>
            <ns2:alight>
```

```

    <ns2:crsCode>CRE</ns2:crsCode>
    <ns2:stationType>NR</ns2:stationType>
  </ns2:alight>
  <ns2:origins>MAN</ns2:origins>
  <ns2:destinations>CRE</ns2:destinations>
  <ns2:originPlatform>2A</ns2:originPlatform>
  <ns2:destinationPlatform>1</ns2:destinationPlatform>
  <ns2:realtimeClassification>NORMAL</ns2:realtimeClassification>
  <ns2:mode>TRAIN</ns2:mode>
  <ns2:operator>
    <ns3:code>NT</ns3:code>
    <ns3:name>Northern Rail</ns3:name>
  </ns2:operator>
  <ns2:timetable>
    <ns2:scheduled>
      <ns2:departure>2011-07-25T10:11:00.000+01:00</ns2:departure>
      <ns2:arrival>2011-07-25T10:46:00.000+01:00</ns2:arrival>
    </ns2:scheduled>
    <ns2:realtime/>
  </ns2:timetable>
</ns2:leg>
<!-- Note : More leg elements omitted -->
</ns2:outwardJourney>
<!-- Note : More outwardJourneys omitted -->
</ns2:postcodeResponse>
<ns2:postcodeResponse>
  <ns2:generatedTime>2011-07-22T14:53:11.265+01:00</ns2:generatedTime>
  <ns2:selectedStation>CHU</ns2:selectedStation>
  <ns2:outwardJourney>
    <ns2:id>1</ns2:id>
    <ns2:origin>CHU</ns2:origin>
    <ns2:destination>EUS</ns2:destination>
    <ns2:realtimeClassification>NORMAL</ns2:realtimeClassification>
    <ns2:timetable>
      <ns2:scheduled>
        <ns2:departure>2011-07-25T10:02:00.000+01:00</ns2:departure>
        <ns2:arrival>2011-07-25T12:23:00.000+01:00</ns2:arrival>
      </ns2:scheduled>
      <ns2:realtime/>
    </ns2:timetable>
  </ns2:leg>
  <ns2:id>1</ns2:id>
  <ns2:board>
    <ns2:crsCode>CHU</ns2:crsCode>
    <ns2:stationType>NR</ns2:stationType>
  </ns2:board>
  <ns2:alight>
    <ns2:crsCode>SOT</ns2:crsCode>
    <ns2:stationType>NR</ns2:stationType>
  </ns2:alight>
  <ns2:origins>MAN</ns2:origins>
  <ns2:destinations>SOT</ns2:destinations>
  <ns2:originPlatform>4</ns2:originPlatform>
  <ns2:destinationPlatform>3</ns2:destinationPlatform>
  <ns2:realtimeClassification>NORMAL</ns2:realtimeClassification>
  <ns2:mode>TRAIN</ns2:mode>
  <ns2:operator>
    <ns3:code>NT</ns3:code>
    <ns3:name>Northern Rail</ns3:name>
  </ns2:operator>
  <ns2:timetable>
    <ns2:scheduled>
      <ns2:departure>2011-07-25T10:02:00.000+01:00</ns2:departure>

```

```

        <ns2:arrival>2011-07-25T10:42:00.000+01:00</ns2:arrival>
    </ns2:scheduled>
    <ns2:realtime/>
</ns2:timetable>
</ns2:leg>
<!-- Note : More leg elements omitted -->
</ns2:outwardJourney>
</ns2:postcodeResponse>
<!-- Note : More postcodeResponse elements omitted -->
<ns2:postcodeStations>
    <ns2:crsCode>CHU</ns2:crsCode>
    <ns2:distance>1.47</ns2:distance>
</ns2:postcodeStations>
<ns2:postcodeStations>
    <ns2:crsCode>SPT</ns2:crsCode>
    <ns2:distance>2.33</ns2:distance>
</ns2:postcodeStations>
<ns2:postcodeStations>
    <ns2:crsCode>BNT</ns2:crsCode>
    <ns2:distance>4.67</ns2:distance>
</ns2:postcodeStations>
<ns2:postcodeStations>
    <ns2:crsCode>DVN</ns2:crsCode>
    <ns2:distance>1.74</ns2:distance>
</ns2:postcodeStations>
<!-- Note : More postcodeStations omitted -->
<ns2:postcodeStations>
    <ns2:crsCode>PYT</ns2:crsCode>
    <ns2:distance>5.38</ns2:distance>
</ns2:postcodeStations>
</ns2:PostcodeJourneyPlanResponse>
</SOAP-ENV:Body>
</SOAP-ENV:Envelope>

```

7.5 JourneyCyclePolicy

7.5.1 Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:jpd="http://www.thalesgroup.com/ojp/jpdlr">
  <soapenv:Header/>
  <soapenv:Body>
    <jpd:JourneyCyclePolicyRequest>
      <!--1 or more repetitions:-->
      <jpd:leg>
        <!--1 or more repetitions:-->
        <jpd:origin>
          <jpd:code>MAN</jpd:code>
          <jpd:time>2013-07-15T15:23:00</jpd:time>
        </jpd:origin>
        <!--1 or more repetitions:-->
        <jpd:destination>
          <jpd:code>BMH</jpd:code>
          <jpd:time>2013-07-15T18:41:00</jpd:time>
        </jpd:destination>
        <jpd:operatorCode>XC</jpd:operatorCode>
        <jpd:board>
          <jpd:code>SPT</jpd:code>
          <jpd:time>2013-07-15T15:23:00</jpd:time>
        </jpd:board>
        <jpd:alight>
          <jpd:code>MAC</jpd:code>
          <jpd:time>2013-07-15T18:41:00</jpd:time>
        </jpd:alight>
      </jpd:leg>
    </jpd:JourneyCyclePolicyRequest>
  </soapenv:Body>
</soapenv:Envelope>
```

7.5.2 Response

```
<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/">
  <SOAP-ENV:Header/>
  <SOAP-ENV:Body>
    <ns2:JourneyCyclePolicyResponse xmlns:ns2="http://www.thalesgroup.com/ojp/jpdlr"
xmlns:ns3="http://www.thalesgroup.com/ojp/common"
xmlns:ns4="http://ojp.nationalrail.co.uk/schemas/FulfilmentHandoff">
      <ns2:legResponse>
        <ns2:origin>
          <ns2:code>MAN</ns2:code>
          <ns2:time>2013-07-15T15:23:00</ns2:time>
        </ns2:origin>
        <ns2:destination>
          <ns2:code>BMH</ns2:code>
          <ns2:time>2013-07-15T18:41:00</ns2:time>
        </ns2:destination>
        <ns2:operatorCode>XC</ns2:operatorCode>
        <ns2:board>
          <ns2:code>SPT</ns2:code>
          <ns2:time>2013-07-15T15:23:00</ns2:time>
        </ns2:board>
        <ns2:alight>
          <ns2:code>MAC</ns2:code>
        </ns2:alight>
      </ns2:legResponse>
    </ns2:JourneyCyclePolicyResponse>
  </SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

```

    <ns2:time>2013-07-15T18:41:00</ns2:time>
  </ns2:alight>
  <ns2:status>Ok</ns2:status>
  <ns2:legCyclePolicy>
    <ns2:cycleAllowed>true</ns2:cycleAllowed>
    <ns2:typesOfCycle>Full size, compact, fully folding, fully folding with cover.

Please note that fully folded bicycles are allowed on all services.</ns2:typesOfCycle>
    <ns2:reservationRequired>YES</ns2:reservationRequired>
    <ns2:numberOfCycleSpaces>2</ns2:numberOfCycleSpaces>
    <ns2:policyDescription>Restrictions apply Monday to Friday on the following services
departing from Manchester Piccadilly from 0600 to 0900. Passengers cannot join at Stafford,
Wolverhampton or Birmingham New Street. Passengers cannot leave at Wolverhampton or
Birmingham New Street</ns2:policyDescription>
  </ns2:legCyclePolicy>
</ns2:legResponse>
</ns2:JourneyCyclePolicyResponse>
</SOAP-ENV:Body>
</SOAP-ENV:Envelope>

```

7.6 TOC Cycle Policy

7.6.1 Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:jpd="http://www.thalesgroup.com/ojp/jpdlr">
  <soapenv:Header/>
  <soapenv:Body>
    <jpd:TOCCyclePolicyRequest>
      <!--1 or more repetitions:-->
      <jpd:operatorCode>XC</jpd:operatorCode>
      <jpd:operatorCode>VT</jpd:operatorCode>
    </jpd:TOCCyclePolicyRequest>
  </soapenv:Body>
</soapenv:Envelope>
```

7.6.2 Response

```
<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/">
  <SOAP-ENV:Header/>
  <SOAP-ENV:Body>
    <ns2:TOCCyclePolicyResponse xmlns:ns2="http://www.thalesgroup.com/ojp/jpdlr"
                                xmlns:ns3="http://www.thalesgroup.com/ojp/common"
                                xmlns:ns4="http://ojp.nationalrail.co.uk/schemas/FulfilmentHandoff">
      <ns2:tocCyclePolicy>
        <ns2:policyDescription>Long distance services between Scotland and North East England and the South and South West, and between South Wales and the East Midlands and to East Anglia Only two bikes are allowed per train at any one time. Free of charge. Reservations are compulsory on all services. Please visit website for more information. Please note fully folded bicycles are allowed on all services.</ns2:policyDescription>
        <ns2:status>Ok</ns2:status>
        <ns2:operatorCode>XC</ns2:operatorCode>
      </ns2:tocCyclePolicy>
      <ns2:tocCyclePolicy>
        <ns2:policyDescription>West Coast: London - West Midlands - North Wales - North West England and Scotland. Free of charge. Reservations compulsory. Four cycle spaces per train. Note: spaces are subject to service alterations. Please note fully folded bicycles are allowed on all services.</ns2:policyDescription>
        <ns2:status>Ok</ns2:status>
        <ns2:operatorCode>VT</ns2:operatorCode>
      </ns2:tocCyclePolicy>
    </ns2:TOCCyclePolicyResponse>
  </SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```


7.7 Extended Journey Planner

The Extended journey plan function allows users to check whether a specified fare is valid on a list of journeys. To achieve this the user has to supply some basic fare and journey information and OJP will respond with a list of journeys indicating whether the specified fare is valid (legal) or not for each journey on the supplied date(s). There are a few different scenarios for which this information can be requested and the below lists these and explains how the extended journey plan function should be used to return the relevant information in each case.

When populating the ExtendedJourneyPlannerRequest, the request will need information that is in the Realtime Journey Plan Response. In the examples for each scenario there will first be a RealtimeJourneyPlanResponse example which has been highlighted to show the specific elements that are needed for a valid ExtendedJourneyPlannerRequest.

7.7.1 Scenario 1 – Single Fares

Single fares will obviously be present for single journeys but may also be on both outward and inward portions of a return journey, if the overall return fare is calculated as the sum of two singles. This is different to a *return fare* for a return journey – return fare scenarios are captured in sections 7.7.2 and 7.7.3 below

If submitting a request for the inward portion of a return journey priced as two singles then this is treated *as if* it is simply a single fare for a single journey, in particular the date is submitted under <outwardSearchDate> not <inwardSearchDate> (<inwardSearchDate> is reserved for inward journeys of return fares - see section 7.7.3)

7.7.1.1 RealTimeJourneyPlannerResponse

The response has been shortened to remove repetitions

```
<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/">
  <SOAP-ENV:Header/>
  <SOAP-ENV:Body>
    <RealtimeJourneyPlanResponse xmlns:ns2="http://www.thalesgroup.com/ojp/jpdlr"
      xmlns:ns3="http://www.thalesgroup.com/ojp/common"
      xmlns:ns4="http://ojp.nationalrail.co.uk/schemas/FulfilmentHandoff">
      <response>Ok</response>
      <generatedTime>2014-09-05T13:15:36.986+01:00</generatedTime>
      <outwardJourney>
        <id>1</id>
        <origin>COL</origin>
        <destination>LST</destination>
        <realtimeClassification>NORMAL</realtimeClassification>
        <vstpService>>false</vstpService>
        <timetable>
          <scheduled>
            <departure>2014-09-19T13:03:00.000+01:00</departure>
            <arrival>2014-09-19T13:55:00.000+01:00</arrival>
          </scheduled>
        </timetable>
      </outwardJourney>
      <leg>
        <id>1</id>
        <board>
          <crsCode>COL</crsCode>
          <stationType>NR</stationType>
        </board>
      </leg>
    </RealtimeJourneyPlanResponse>
  </SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

```

<board>
<align>
  <crsCode>LST<crsCode>
  <stationType>NR<stationType>
<align>
<originInstants>
  <stationCRS>NRW<stationCRS>
  <scheduledTime>2014-09-19T12:00:00.000+01:00<scheduledTime>
<originInstants>
<destinationInstants>
  <stationCRS>LST<stationCRS>
  <scheduledTime>2014-09-19T13:55:00.000+01:00<scheduledTime>
<destinationInstants>
<originPlatform>3<originPlatform>
<destinationPlatform>9<destinationPlatform>
<realtimeClassification>NORMAL<realtimeClassification>
<mode>TRAIN<mode>
<operator>
  <code>LE<code>
  <name>Abellio Greater Anglia<name>
<operator>
<timetable>
  <scheduled>
    <departure>2014-09-19T13:03:00.000+01:00<departure>
    <arrival>2014-09-19T13:55:00.000+01:00<arrival>
  <scheduled>
  <realtime/>
<timetable>
<leg>
<fare>
  <id>2<id>
  <description>Anytime Day Single<description>
  <totalPrice>2770<totalPrice>
  <undiscountedPrices>
    <adult>2770<adult>
    <child>1385<child>
  <undiscountedPrices>
  <typeCode>SDS<typeCode>
  <fareClass>STANDARD<fareClass>
  <fareCategory>ANYTIME<fareCategory>
  <routeCode>00000<routeCode>
  <fareSetter>LER<fareSetter>
  <startLegId>1<startLegId>
  <endLegId>1<endLegId>
  <originNlc>0254<originNlc>
  <destinationNlc>1072<destinationNlc>
  <direction>OUTWARD<direction>
  <individualFare>
    <prices>
      <adult>2770<adult>
      <child>0<child>
    <prices>
    <accompaniedPrices>
      <adult>0<adult>
      <child>0<child>
    <accompaniedPrices>
    <passengers>
      <adult>1<adult>
      <child>0<child>
    <passengers>
    <accompaniedPassengers>
      <adult>0<adult>
      <child>0<child>

```

```

    <accompaniedPassengers>
    <individualFare>
    <fare>

```

7.7.1.2 ExtendedJourneyPlannerRequest

For single fares, if the user is looking for journeys on which their fare may be valid then the extended journey plan request can be submitted with the user's origin and destination and the <outwardSearchDate> set to the date of their ticket (if a ticket has already been purchased) or to the departure date from the origin location (if journey planning).

An example is shown below, where the user holds a single fare from Colchester to London Liverpool Street dated 19th September 2014. Note: for this scenario the <outwardSearchDate> must be greater than or equal to 'today'.

```

<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
                  xmlns:jpd="http://www.thalesgroup.com/ojp/jpdlr"
                  xmlns:com="http://www.thalesgroup.com/ojp/common">
  <soapenv:Header/>
  <soapenv:Body>
    <jpd:ExtendedJourneyPlannerRequest>
      <jpd:departureCr>
        <com:stationCRS>COL</com:stationCRS>
      </jpd:departureCr>
      <jpd:arrivalCr>
        <com:stationCRS>LST</com:stationCRS>
      </jpd:arrivalCr>
      <jpd:outwardSearchDate>2014-09-19</jpd:outwardSearchDate>
      <jpd:realtimeEnquiry>STANDARD</jpd:realtimeEnquiry>
      <jpd:passengers>
        <com:adult>1</com:adult>
        <com:child>0</com:child>
      </jpd:passengers>
      <jpd:specifiedFare>
        <jpd:fareCode>SDS</jpd:fareCode>
        <jpd:fareCategory>ANYTIME</jpd:fareCategory>
        <jpd:routeCode>00000</jpd:routeCode>
        <jpd:fareOrigin>0254</jpd:fareOrigin>
        <jpd:fareDestination>1072</jpd:fareDestination>
        <jpd:totalFare>2770</jpd:totalFare>
      </jpd:specifiedFare>
    </jpd:ExtendedJourneyPlannerRequest>
  </soapenv:Body>
</soapenv:Envelope>

```

7.7.1.3 Extended Journey Planner Response

The response has been shortened to remove repetitions

```

<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/">
  <SOAP-ENV:Header/>
  <SOAP-ENV:Body>
    <ns2:ExtendedJourneyPlannerResponse xmlns:ns2="http://www.thalesgroup.com/ojp/jpdlr"
    xmlns:ns3="http://www.thalesgroup.com/ojp/common"
    xmlns:ns4="http://ojp.nationalrail.co.uk/schemas/FulfilmentHandoff">
      <ns3:response>Ok</ns3:response>
      <ns2:generatedTime>2014-09-05T13:20:46.493+01:00</ns2:generatedTime>
      <ns2:journey>

```

```

<ns2:id>1</ns2:id>
<ns2:origin>COL</ns2:origin>
<ns2:destination>LST</ns2:destination>
<ns2:realtimeClassification>NORMAL</ns2:realtimeClassification>
<ns2:vstpService>false</ns2:vstpService>
<ns2:timetable>
  <ns2:scheduled>
    <ns2:departure>2014-09-19T04:43:00.000+01:00</ns2:departure>
    <ns2:arrival>2014-09-19T05:55:00.000+01:00</ns2:arrival>
  </ns2:scheduled>
  <ns2:realtime/>
</ns2:timetable>
<ns2:leg>
  <ns2:id>1</ns2:id>
  <ns2:board>
    <ns2:crsCode>COL</ns2:crsCode>
    <ns2:stationType>NR</ns2:stationType>
  </ns2:board>
  <ns2:alight>
    <ns2:crsCode>LST</ns2:crsCode>
    <ns2:stationType>NR</ns2:stationType>
  </ns2:alight>
  <ns2:originPlatform>6</ns2:originPlatform>
  <ns2:destinationPlatform>14</ns2:destinationPlatform>
  <ns2:realtimeClassification>NORMAL</ns2:realtimeClassification>
  <ns2:mode>TRAIN</ns2:mode>
  <ns2:operator>
    <ns3:code>LE</ns3:code>
    <ns3:name>Abellio Greater Anglia</ns3:name>
  </ns2:operator>
  <ns2:timetable>
    <ns2:scheduled>
      <ns2:departure>2014-09-19T04:43:00.000+01:00</ns2:departure>
      <ns2:arrival>2014-09-19T05:55:00.000+01:00</ns2:arrival>
    </ns2:scheduled>
    <ns2:realtime/>
  </ns2:timetable>
</ns2:leg>
<ns2:fareIdList>
  <ns2:fareId>1</ns2:fareId>
</ns2:fareIdList>
<ns2:specifiedFareLegal>true</ns2:specifiedFareLegal>
</ns2:journey>
<ns2:journey>

```

7.7.2 Scenario 2 – Return Fares / Outward Journey

Note: This scenario also covers the case where a return fare is used for a single journey. This is valid as on some routes an off-peak return fare is cheaper than the anytime single fare and there is no off-peak single priced by the TOC.

7.7.2.1 RealTimeJourneyPlannerResponse

```

<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/">
  <SOAP-ENV:Header/>
  <SOAP-ENV:Body>
    <ns2:RealtimeJourneyPlanResponse xmlns:ns2="http://www.thalesgroup.com/ojp/jpdlr"
      xmlns:ns3="http://www.thalesgroup.com/ojp/common"
      xmlns:ns4="http://ojp.nationalrail.co.uk/schemas/FulfilmentHandoff">
      <ns3:response>Ok</ns3:response>
    </ns2:RealtimeJourneyPlanResponse>
  </SOAP-ENV:Body>
</SOAP-ENV:Envelope>

```

```

<ns2:generatedTime>2014-09-05T14:24:35.441+01:00</ns2:generatedTime>
<ns2:outwardJourney>
  <ns2:id>1</ns2:id>
  <ns2:origin>COL</ns2:origin>
  <ns2:destination>LST</ns2:destination>
  <ns2:realtimeClassification>NORMAL</ns2:realtimeClassification>
  <ns2:vstpService>false</ns2:vstpService>
  <ns2:timetable>
    <ns2:scheduled>
      <ns2:departure>2014-09-19T13:03:00.000+01:00</ns2:departure>
      <ns2:arrival>2014-09-19T13:55:00.000+01:00</ns2:arrival>
    </ns2:scheduled>
    <ns2:realtime/>
  </ns2:timetable>
  <ns2:leg>
    <ns2:id>1</ns2:id>
    <ns2:board>
      <ns2:crsCode>COL</ns2:crsCode>
      <ns2:stationType>NR</ns2:stationType>
    </ns2:board>
    <ns2:alight>
      <ns2:crsCode>LST</ns2:crsCode>
      <ns2:stationType>NR</ns2:stationType>
    </ns2:alight>
    <ns2:originInstants>
      <ns3:stationCRS>NRW</ns3:stationCRS>
      <ns3:scheduledTime>2014-09-19T12:00:00.000+01:00</ns3:scheduledTime>
    </ns2:originInstants>
    <ns2:destinationInstants>
      <ns3:stationCRS>LST</ns3:stationCRS>
      <ns3:scheduledTime>2014-09-19T13:55:00.000+01:00</ns3:scheduledTime>
    </ns2:destinationInstants>
    <ns2:originPlatform>3</ns2:originPlatform>
    <ns2:destinationPlatform>9</ns2:destinationPlatform>
    <ns2:realtimeClassification>NORMAL</ns2:realtimeClassification>
    <ns2:mode>TRAIN</ns2:mode>
    <ns2:operator>
      <ns3:code>LE</ns3:code>
      <ns3:name>Abellio Greater Anglia</ns3:name>
    </ns2:operator>
    <ns2:timetable>
      <ns2:scheduled>
        <ns2:departure>2014-09-19T13:03:00.000+01:00</ns2:departure>
        <ns2:arrival>2014-09-19T13:55:00.000+01:00</ns2:arrival>
      </ns2:scheduled>
      <ns2:realtime/>
    </ns2:timetable>
  </ns2:leg>
  <ns2:fare>
    <ns3:id>1</ns3:id>
    <ns3:description>Anytime Day Return</ns3:description>
    <ns3:totalPrice>4920</ns3:totalPrice>
    <ns3:undiscountedPrices>
      <ns3:adult>4920</ns3:adult>
      <ns3:child>2460</ns3:child>
    </ns3:undiscountedPrices>
    <ns3:typeCode>SDR</ns3:typeCode>
    <ns3:fareClass>STANDARD</ns3:fareClass>
    <ns3:fareCategory>ANYTIME</ns3:fareCategory>
    <ns3:routeCode>00000</ns3:routeCode>
    <ns3:fareSetter>LER</ns3:fareSetter>
    <ns3:startLegId>1</ns3:startLegId>
    <ns3:endLegId>1</ns3:endLegId>
  </ns2:fare>

```

```

<ns3:originNlc>0254</ns3:originNlc>
<ns3:destinationNlc>1072</ns3:destinationNlc>
<ns3:direction>RETURN</ns3:direction>
<ns3:individualFare>
  <ns3:prices>
    <ns3:adult>4920</ns3:adult>
    <ns3:child>0</ns3:child>
  </ns3:prices>
  <ns3:accompaniedPrices>
    <ns3:adult>0</ns3:adult>
    <ns3:child>0</ns3:child>
  </ns3:accompaniedPrices>
  <ns3:passengers>
    <ns3:adult>1</ns3:adult>
    <ns3:child>0</ns3:child>
  </ns3:passengers>
  <ns3:accompaniedPassengers>
    <ns3:adult>0</ns3:adult>
    <ns3:child>0</ns3:child>
  </ns3:accompaniedPassengers>
</ns3:individualFare>
</ns2:fare>

```

7.7.2.2 ExtendedJourneyPlannerRequest

For return fares, if the user is looking for *outward* journeys on which their fare may be valid then the extended journey plan request can be submitted with the user's origin and destination and the <outwardSearchDate> set to the date of their ticket (if a ticket has already been purchased) or to the departure date from the origin location (if journey planning).

An example is shown below, where the user holds a return fare from Colchester to London Liverpool Street dated 19th September 2014. Note: for this scenario the <outwardSearchDate> must be greater than or equal to 'today'.

```

<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:jpd="http://www.thalesgroup.com/ojp/jpdIr" xmlns:com="http://www.thalesgroup.com/ojp/common">
  <soapenv:Header/>
  <soapenv:Body>
    <jpd:ExtendedJourneyPlannerRequest>
      <jpd:departureCr>
        <com:stationCRS>COL</com:stationCRS>
      </jpd:departureCr>
      <jpd:arrivalCr>
        <com:stationCRS>LST</com:stationCRS>
      </jpd:arrivalCr>
      <jpd:outwardSearchDate>2014-09-19</jpd:outwardSearchDate>
      <jpd:realtimeEnquiry>STANDARD</jpd:realtimeEnquiry>
      <jpd:passengers>
        <com:adult>1</com:adult>
        <com:child>0</com:child>
      </jpd:passengers>
      <jpd:specifiedFare>
        <jpd:fareCode>SDR</jpd:fareCode>
        <jpd:fareCategory>ANYTIME</jpd:fareCategory>
        <jpd:routeCode>00000</jpd:routeCode>
        <jpd:fareOrigin>0254</jpd:fareOrigin>
        <jpd:fareDestination>1072</jpd:fareDestination>
        <jpd:totalFare>4920</jpd:totalFare>
      </jpd:specifiedFare>
    </jpd:ExtendedJourneyPlannerRequest>
  </soapenv:Body>
</soapenv:Envelope>

```

```
</soapenv:Body>
</soapenv:Envelope>
```

7.7.2.3 Extended Journey Planner Response

```
<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/">
  <SOAP-ENV:Header/>
  <SOAP-ENV:Body>
    <ns2:ExtendedJourneyPlannerResponse xmlns:ns2="http://www.thalesgroup.com/ojp/jpdlr"
      xmlns:ns3="http://www.thalesgroup.com/ojp/common"
      xmlns:ns4="http://ojp.nationalrail.co.uk/schemas/FulfilmentHandoff">
      <ns3:response>Ok</ns3:response>
      <ns2:generatedTime>2014-09-05T14:28:35.379+01:00</ns2:generatedTime>
      <ns2:journey>
        <ns2:id>1</ns2:id>
        <ns2:origin>COL</ns2:origin>
        <ns2:destination>LST</ns2:destination>
        <ns2:realtimeClassification>NORMAL</ns2:realtimeClassification>
        <ns2:vstpService>false</ns2:vstpService>
        <ns2:timetable>
          <ns2:scheduled>
            <ns2:departure>2014-09-19T04:43:00.000+01:00</ns2:departure>
            <ns2:arrival>2014-09-19T05:55:00.000+01:00</ns2:arrival>
          </ns2:scheduled>
          <ns2:realtime/>
        </ns2:timetable>
        <ns2:leg>
          <ns2:id>1</ns2:id>
          <ns2:board>
            <ns2:crsCode>COL</ns2:crsCode>
            <ns2:stationType>NR</ns2:stationType>
          </ns2:board>
          <ns2:alight>
            <ns2:crsCode>LST</ns2:crsCode>
            <ns2:stationType>NR</ns2:stationType>
          </ns2:alight>
          <ns2:originPlatform>6</ns2:originPlatform>
          <ns2:destinationPlatform>14</ns2:destinationPlatform>
          <ns2:realtimeClassification>NORMAL</ns2:realtimeClassification>
          <ns2:mode>TRAIN</ns2:mode>
          <ns2:operator>
            <ns3:code>LE</ns3:code>
            <ns3:name>Abellio Greater Anglia</ns3:name>
          </ns2:operator>
          <ns2:timetable>
            <ns2:scheduled>
              <ns2:departure>2014-09-19T04:43:00.000+01:00</ns2:departure>
              <ns2:arrival>2014-09-19T05:55:00.000+01:00</ns2:arrival>
            </ns2:scheduled>
            <ns2:realtime/>
          </ns2:timetable>
        </ns2:leg>
        <ns2:fareIdList>
          <ns2:fareId>1</ns2:fareId>
        </ns2:fareIdList>
        <ns2:specifiedFareLegal>true</ns2:specifiedFareLegal>
      </ns2:journey>
    </ns2:journey>
  </SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

7.7.3 Scenario 3 – Return Fares / Inward Journey

Note: The below has been shortened to avoid repetitions

7.7.3.1 RealTimeJourneyPlannerResponse

```
<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/">
  <SOAP-ENV:Header/>
  <SOAP-ENV:Body>
    <ns2:RealtimeJourneyPlanResponse xmlns:ns2="http://www.thalesgroup.com/ojp/jpdlr"
  xmlns:ns3="http://www.thalesgroup.com/ojp/common"
  xmlns:ns4="http://ojp.nationalrail.co.uk/schemas/FulfilmentHandoff">
      <ns3:response>Ok</ns3:response>
      <ns2:generatedTime>2014-09-05T14:54:38.909+01:00</ns2:generatedTime>
      <ns2:outwardJourney>
        <ns2:id>1</ns2:id>
        <ns2:origin>COL</ns2:origin>
        <ns2:destination>YRK</ns2:destination>
        <ns2:realtimeClassification>NORMAL</ns2:realtimeClassification>
        <ns2:vstpService>false</ns2:vstpService>
        <ns2:timetable>
          <ns2:scheduled>
            <ns2:departure>2014-09-19T13:03:00.000+01:00</ns2:departure>
            <ns2:arrival>2014-09-19T16:39:00.000+01:00</ns2:arrival>
          </ns2:scheduled>
          <ns2:realtime/>
        </ns2:timetable>
        <ns2:leg>
          <ns2:id>1</ns2:id>
          <ns2:board>
            <ns2:crsCode>COL</ns2:crsCode>
            <ns2:stationType>NR</ns2:stationType>
          </ns2:board>
          <ns2:alight>
            <ns2:crsCode>SRA</ns2:crsCode>
            <ns2:stationType>NR</ns2:stationType>
          </ns2:alight>
          <ns2:originInstants>
            <ns3:stationCRS>NRW</ns3:stationCRS>
            <ns3:scheduledTime>2014-09-19T12:00:00.000+01:00</ns3:scheduledTime>
          </ns2:originInstants>
          <ns2:destinationInstants>
            <ns3:stationCRS>LST</ns3:stationCRS>
            <ns3:scheduledTime>2014-09-19T13:55:00.000+01:00</ns3:scheduledTime>
          </ns2:destinationInstants>
          <ns2:originPlatform>3</ns2:originPlatform>
          <ns2:destinationPlatform>9</ns2:destinationPlatform>
          <ns2:realtimeClassification>NORMAL</ns2:realtimeClassification>
          <ns2:mode>TRAIN</ns2:mode>
          <ns2:operator>
            <ns3:code>LE</ns3:code>
            <ns3:name>Abellio Greater Anglia</ns3:name>
          </ns2:operator>
          <ns2:timetable>
            <ns2:scheduled>
              <ns2:departure>2014-09-19T13:03:00.000+01:00</ns2:departure>
              <ns2:arrival>2014-09-19T13:45:00.000+01:00</ns2:arrival>
            </ns2:scheduled>
            <ns2:realtime/>
          </ns2:timetable>
        </ns2:leg>
        <ns2:fare>
```



```

<ns3:id>1</ns3:id>
<ns3:description>Anytime Return</ns3:description>
<ns3:totalPrice>28900</ns3:totalPrice>
<ns3:undiscountedPrices>
  <ns3:adult>28900</ns3:adult>
  <ns3:child>14450</ns3:child>
</ns3:undiscountedPrices>
<ns3:typeCode>SOR</ns3:typeCode>
<ns3:fareClass>STANDARD</ns3:fareClass>
<ns3:fareCategory>ANYTIME</ns3:fareCategory>
<ns3:routeCode>00000</ns3:routeCode>
<ns3:fareSetter>IEC</ns3:fareSetter>
<ns3:startLegId>1</ns3:startLegId>
<ns3:endLegId>3</ns3:endLegId>
<ns3:originNlc>0254</ns3:originNlc>
<ns3:destinationNlc>8263</ns3:destinationNlc>
<ns3:direction>RETURN</ns3:direction>
<ns3:individualFare>
  <ns3:prices>
    <ns3:adult>28900</ns3:adult>
    <ns3:child>0</ns3:child>
  </ns3:prices>
  <ns3:accompaniedPrices>
    <ns3:adult>0</ns3:adult>
    <ns3:child>0</ns3:child>
  </ns3:accompaniedPrices>
  <ns3:passengers>
    <ns3:adult>1</ns3:adult>
    <ns3:child>0</ns3:child>
  </ns3:passengers>
  <ns3:accompaniedPassengers>
    <ns3:adult>0</ns3:adult>
    <ns3:child>0</ns3:child>
  </ns3:accompaniedPassengers>
</ns3:individualFare>
</ns2:fare>
<ns2:inwardJourney>
  <ns2:id>6</ns2:id>
  <ns2:origin>YRK</ns2:origin>
  <ns2:destination>COL</ns2:destination>
  <ns2:realtimeClassification>NORMAL</ns2:realtimeClassification>
  <ns2:vstpService>false</ns2:vstpService>
  <ns2:timetable>
    <ns2:scheduled>
      <ns2:departure>2014-09-21T09:58:00.000+01:00</ns2:departure>
      <ns2:arrival>2014-09-21T14:02:00.000+01:00</ns2:arrival>
    </ns2:scheduled>
    <ns2:realtime/>
  </ns2:timetable>
  <ns2:leg>
    <ns2:id>1</ns2:id>
    <ns2:board>
      <ns2:crsCode>YRK</ns2:crsCode>
      <ns2:stationType>NR</ns2:stationType>
    </ns2:board>
    <ns2:alight>
      <ns2:crsCode>PBO</ns2:crsCode>
      <ns2:stationType>NR</ns2:stationType>
    </ns2:alight>
    <ns2:origins>NCL</ns2:origins>
    <ns2:destinations>KGX</ns2:destinations>
    <ns2:originPlatform>3</ns2:originPlatform>
    <ns2:destinationPlatform>3</ns2:destinationPlatform>

```

```

<ns2:realtimeClassification>NORMAL</ns2:realtimeClassification>
<ns2:mode>TRAIN</ns2:mode>
<ns2:operator>
  <ns3:code>GR</ns3:code>
  <ns3:name>East Coast</ns3:name>
</ns2:operator>
<ns2:timetable>
  <ns2:scheduled>
    <ns2:departure>2014-09-21T09:58:00.000+01:00</ns2:departure>
    <ns2:arrival>2014-09-21T11:03:00.000+01:00</ns2:arrival>
  </ns2:scheduled>
  <ns2:realtime/>
</ns2:timetable>
</ns2:leg>
<ns2:fare>
  <ns3:id>1</ns3:id>
  <ns3:description>Anytime Return</ns3:description>
  <ns3:totalPrice>28900</ns3:totalPrice>
  <ns3:undiscountedPrices>
    <ns3:adult>28900</ns3:adult>
    <ns3:child>14450</ns3:child>
  </ns3:undiscountedPrices>
  <ns3:typeCode>SOR</ns3:typeCode>
  <ns3:fareClass>STANDARD</ns3:fareClass>
  <ns3:fareCategory>ANYTIME</ns3:fareCategory>
  <ns3:routeCode>00000</ns3:routeCode>
  <ns3:fareSetter>IEC</ns3:fareSetter>
  <ns3:startLegId>1</ns3:startLegId>
  <ns3:endLegId>3</ns3:endLegId>
  <ns3:originNlc>0254</ns3:originNlc>
  <ns3:destinationNlc>8263</ns3:destinationNlc>
  <ns3:direction>RETURN</ns3:direction>
  <ns3:individualFare>
    <ns3:prices>
      <ns3:adult>28900</ns3:adult>
      <ns3:child>0</ns3:child>
    </ns3:prices>
    <ns3:accompaniedPrices>
      <ns3:adult>0</ns3:adult>
      <ns3:child>0</ns3:child>
    </ns3:accompaniedPrices>
    <ns3:passengers>
      <ns3:adult>1</ns3:adult>
      <ns3:child>0</ns3:child>
    </ns3:passengers>
    <ns3:accompaniedPassengers>
      <ns3:adult>0</ns3:adult>
      <ns3:child>0</ns3:child>
    </ns3:accompaniedPassengers>
  </ns3:individualFare>
</ns2:fare>
</ns2:inwardJourney>

```

7.7.3.2 ExtendedJourneyPlannerRequest

For return fares, if the user is looking for *inward* journeys on which their fare may be valid then the extended journey plan request can be submitted with the user's origin, destination and the <outwardSearchDate> set to the date of their ticket (if a ticket has already been

purchased) or to the departure date from the origin location (if journey planning). The <inwardSearchDate> should be set to the departure date for their return.

An example is shown below, where the user holds a return fare from Colchester to York which they used to travel outward on 19th September 2014 and are checking to see which journeys it will be valid (or not) to return from York on the 21st September. Note: for this scenario the <outwardSearchDate> may be in the past and the <inwardSearchDate> must be greater than or equal to the <outwardSearchDate>.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:jpd="http://www.thalesgroup.com/ojp/jpd/r" xmlns:com="http://www.thalesgroup.com/ojp/common">
  <soapenv:Header/>
  <soapenv:Body>
    <jpd:ExtendedJourneyPlannerRequest>
      <jpd:departureCr>
        <com:stationCRS>COL</com:stationCRS>
      </jpd:departureCr>
      <jpd:arrivalCr>
        <com:stationCRS>YRK</com:stationCRS>
      </jpd:arrivalCr>
      <jpd:outwardSearchDate>2014-09-19</jpd:outwardSearchDate>
      <jpd:inwardSearchDate>2014-09-21</jpd:inwardSearchDate>
      <jpd:realtimeEnquiry>STANDARD</jpd:realtimeEnquiry>
      <jpd:passengers>
        <com:adult>1</com:adult>
        <com:child>0</com:child>
      </jpd:passengers>
      <jpd:specifiedFare>
        <jpd:fareCode>SOR</jpd:fareCode>
        <jpd:fareCategory>ANYTIME</jpd:fareCategory>
        <jpd:routeCode>00000</jpd:routeCode>
        <jpd:fareOrigin>0254</jpd:fareOrigin>
        <jpd:fareDestination>8263</jpd:fareDestination>
        <jpd:totalFare>28900</jpd:totalFare>
      </jpd:specifiedFare>
    </jpd:ExtendedJourneyPlannerRequest>
  </soapenv:Body>
</soapenv:Envelope>
```

7.7.3.3 Extended Journey Planner Response

```
<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/">
  <SOAP-ENV:Header/>
  <SOAP-ENV:Body>
    <ns2:ExtendedJourneyPlannerResponse xmlns:ns2="http://www.thalesgroup.com/ojp/jpd/r"
xmlns:ns3="http://www.thalesgroup.com/ojp/common"
xmlns:ns4="http://ojp.nationalrail.co.uk/schemas/FulfilmentHandoff">
      <ns3:response>Ok</ns3:response>
      <ns2:generatedTime>2014-09-05T14:49:07.570+01:00</ns2:generatedTime>
      <ns2:journey>
        <ns2:id>1</ns2:id>
        <ns2:origin>YRK</ns2:origin>
        <ns2:destination>COL</ns2:destination>
        <ns2:realtimeClassification>NORMAL</ns2:realtimeClassification>
        <ns2:vstpService>false</ns2:vstpService>
        <ns2:timetable>
          <ns2:scheduled>
            <ns2:departure>2014-09-21T08:00:00.000+01:00</ns2:departure>
            <ns2:arrival>2014-09-21T12:25:00.000+01:00</ns2:arrival>
          </ns2:scheduled>
        </ns2:timetable>
      </ns2:journey>
    </ns2:ExtendedJourneyPlannerResponse>
  </SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

```

    <ns2:realtime/>
</ns2:timetable>
<ns2:leg>
  <ns2:id>1</ns2:id>
  <ns2:board>
    <ns2:crsCode>YRK</ns2:crsCode>
    <ns2:stationType>NR</ns2:stationType>
  </ns2:board>
  <ns2:alight>
    <ns2:crsCode>KGX</ns2:crsCode>
    <ns2:stationType>NR</ns2:stationType>
  </ns2:alight>
  <ns2:originPlatform>6</ns2:originPlatform>
  <ns2:destinationPlatform>3</ns2:destinationPlatform>
  <ns2:realtimeClassification>NORMAL</ns2:realtimeClassification>
  <ns2:mode>TRAIN</ns2:mode>
  <ns2:operator>
    <ns3:code>GR</ns3:code>
    <ns3:name>East Coast</ns3:name>
  </ns2:operator>
  <ns2:timetable>
    <ns2:scheduled>
      <ns2:departure>2014-09-21T08:00:00.000+01:00</ns2:departure>
      <ns2:arrival>2014-09-21T10:17:00.000+01:00</ns2:arrival>
    </ns2:scheduled>
    <ns2:realtime/>
  </ns2:timetable>
</ns2:leg>

```

7.8 Example Error Responses

7.8.1 DepartureBoard with invalid station entry

```
<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/">
  <SOAP-ENV:Header/>
  <SOAP-ENV:Body>
    <ns2:DepartureBoardFault
      xmlns:ns2="http://www.thalesgroup.com/ojp/jpdlr"
      xmlns:ns3="http://www.thalesgroup.com/ojp/common">
      <ns3:response>StationDoesNotExist</ns3:response>
      <ns3:responseDetails>The crs code ZZZ provided for the station does not exist.</ns3:responseDetails>
    </ns2:DepartureBoardFault>
  </SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

7.8.2 RealtimeJourneyPlan with return date before outward date

```
<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/">
  <SOAP-ENV:Header/>
  <SOAP-ENV:Body>
    <ns2:RealtimeJourneyPlanFault
      xmlns:ns2="http://www.thalesgroup.com/ojp/jpdlr"
      xmlns:ns3="http://www.thalesgroup.com/ojp/common">
      <ns3:response>ReturnDateTimeBeforeOutwardDate</ns3:response>
      <ns3:responseDetails>The inward date time is before the outward date time.</ns3:responseDetails>
    </ns2:RealtimeJourneyPlanFault>
  </SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

7.8.3 RealtimeCallingPoints with no matching journey

```
<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/">
  <SOAP-ENV:Header/>
  <SOAP-ENV:Body>
    <ns2:RealtimeCallingPointsFault
      xmlns:ns2="http://www.thalesgroup.com/ojp/jpdlr"
      xmlns:ns3="http://www.thalesgroup.com/ojp/common">
      <ns3:response>MatchingJourneyNotFound</ns3:response>
      <ns3:responseDetails>
        No journey was found with the given origin, destination, departure time and arrival time.
      </ns3:responseDetails>
    </ns2:RealtimeCallingPointsFault>
  </SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

7.8.4 PostcodeJourneyPlan with postcode defined in 'From and 'To' location

```
<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/">
  <SOAP-ENV:Header/>
  <SOAP-ENV:Body>
    <ns2:PostcodeJourneyPlanFault
```

```
xmlns:ns2="http://www.thalesgroup.com/ojp/jpdlr"
xmlns:ns3="http://www.thalesgroup.com/ojp/common">
<ns3:response>PostcodeNotAllowedForFromAndTo</ns3:response>
<ns3:responseDetails>
The origin and destination cannot both be a postcode.
</ns3:responseDetails>
</ns2: PostcodeJourneyPlanFault >
</SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```