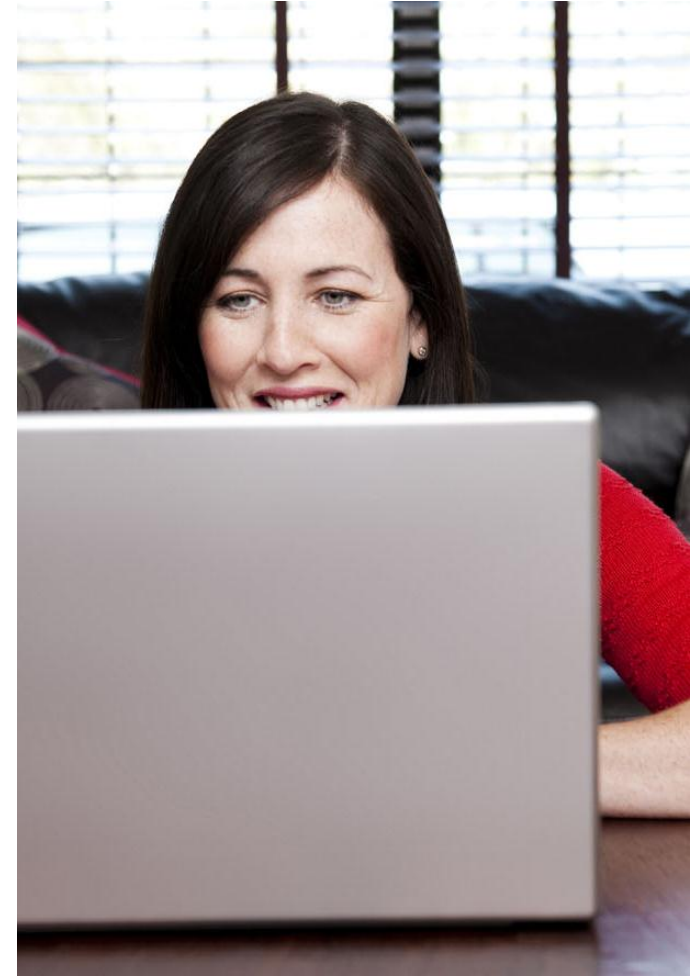# Local Collect®
API Service Overview

- Background / Summary

- Key Objectives

- Business Services

- Systems Context

- Input Message Format

- Output Message Format

- Error Messages

- Security

- Any Questions

Background / Summary

- The Local Collect service is a delivery enhancement to Royal Mail products that enables customers to benefit from 'Click and Collect' options by having their parcels delivered to participating Post Offices.

- With over 10,500 Post Offices providing collection points, consumers have a wide choice of where their parcel is delivered to, and when they collect it.

- To support this delivery enhancement, Post Office have developed a capacity management system which is exposed through a set of Royal Mail web services.

Key Objectives

- Provide a real-time web service that allows customers to:

    - Retrieve an up-to-date list of Post Offices that offer Local Collect and have sufficient capacity to receive parcels (for a given location and delivery date).

    - Confirm selection in a given Post Office for a delivery to ensure there is sufficient physical space for parcels to be held awaiting collection.

Business Services

Business services supported by the interface:

Business Service	Description	Request Message	Response Message	Conversation Style
Get Delivery Locations	Returns a list of Post Offices including (for each location) a flag to indicate if the Post Office has capacity available, and a unique reservation code.	getLCDeliveryLocationsRequest	getLCDeliveryLocationsResponse	Synchronous Request / Response
Set Delivery Location	Confirm selection in a given Post Office for a delivery to ensure there is sufficient physical space for parcels to be held awaiting collection	setLCDeliveryLocationRequest	setLCDeliveryLocationResponse	Synchronous Request / Response

Systems Context
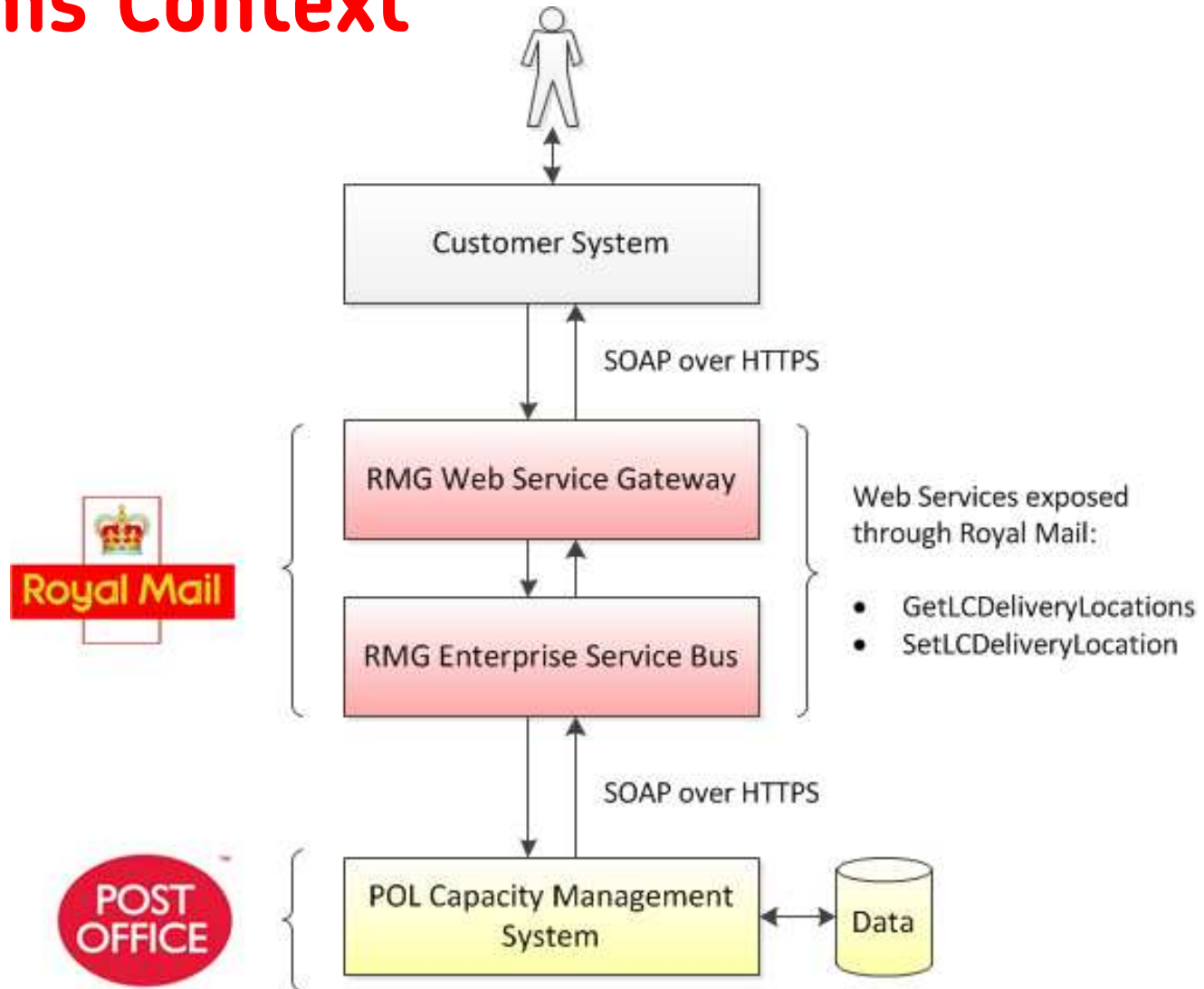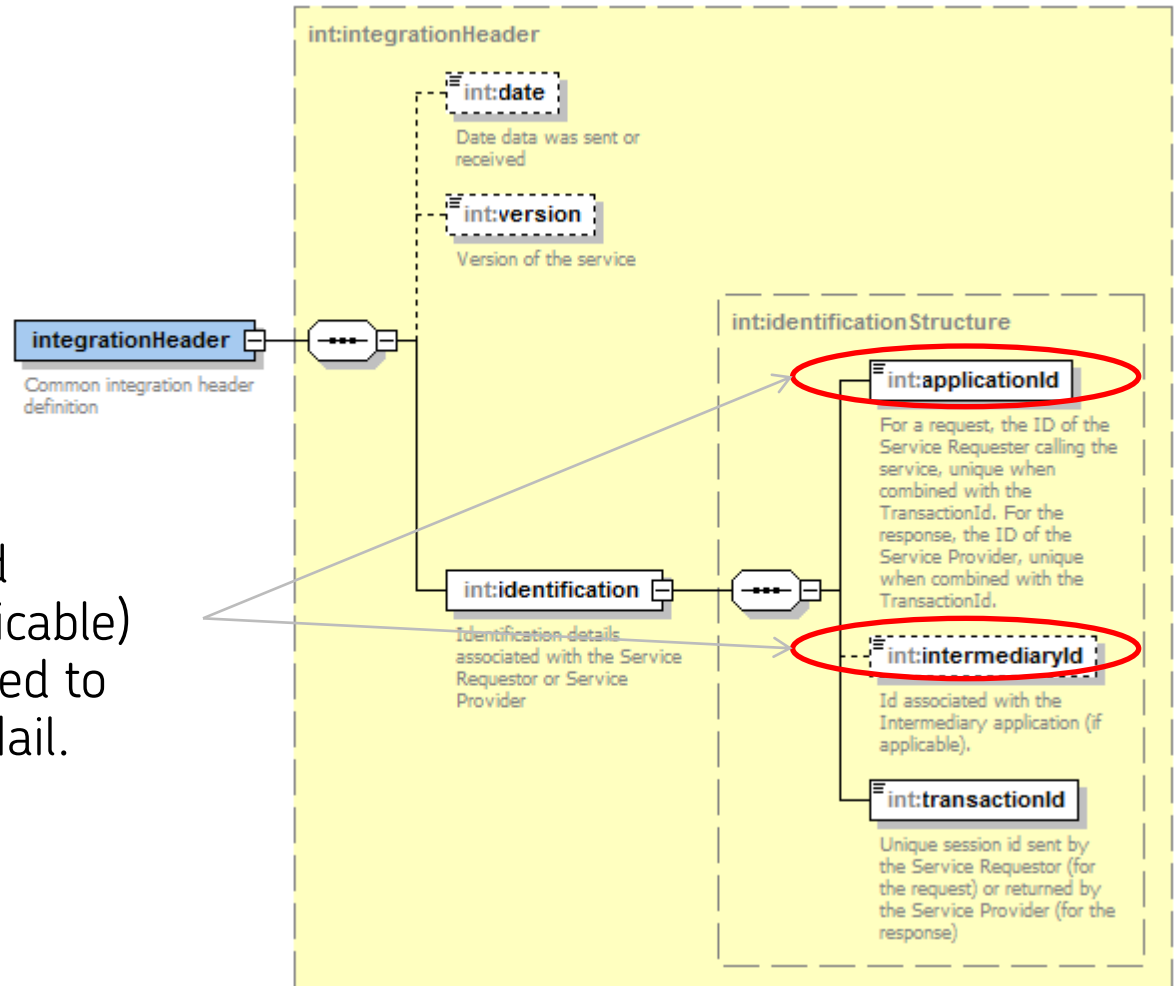
Input Message Format (Get Locations)

GetLCDeliveryLocations Request Message Structure:
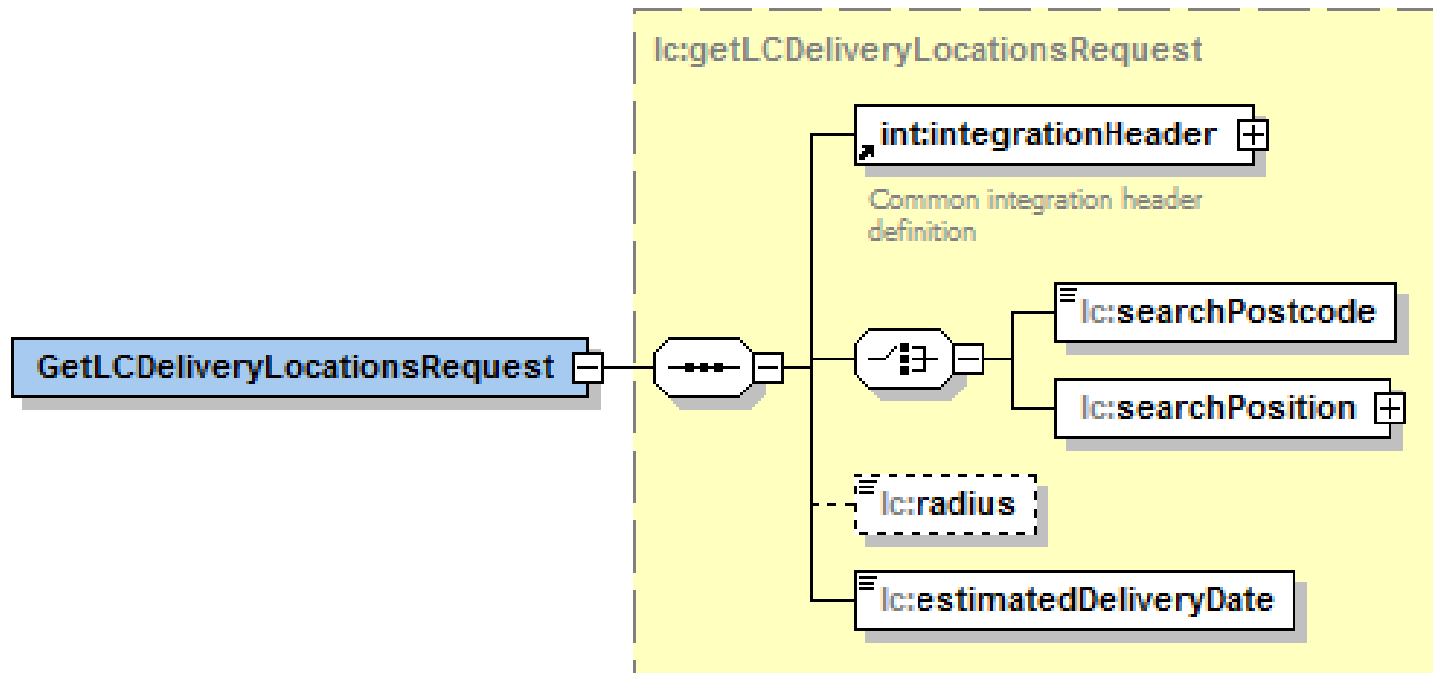
Input Message Format (Get Locations)

Integration Header Structure:

The applicationId (and intermediaryId if applicable) value(s) will be provided to customers by Royal Mail.
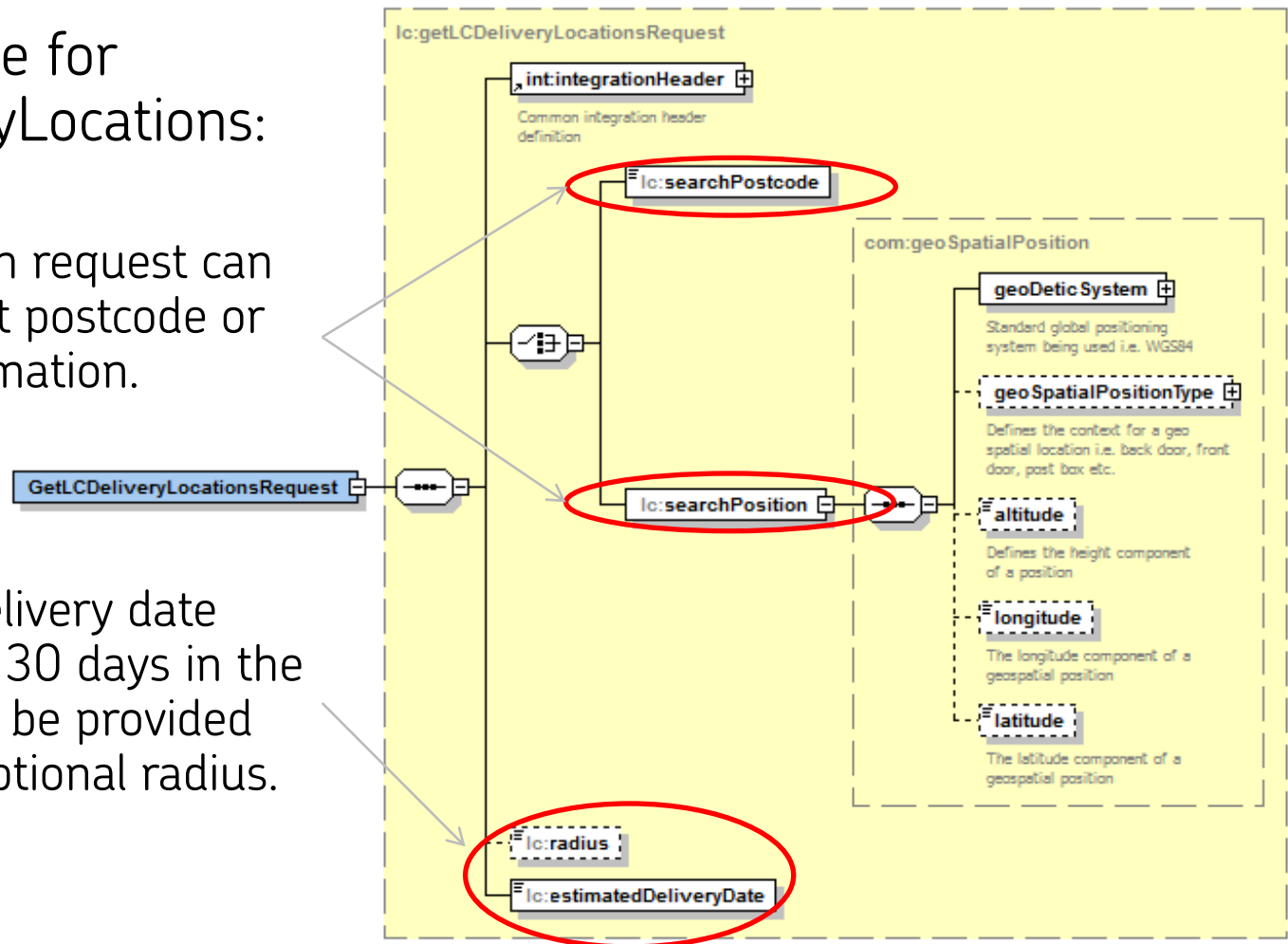
Input Message Format (Get Locations)
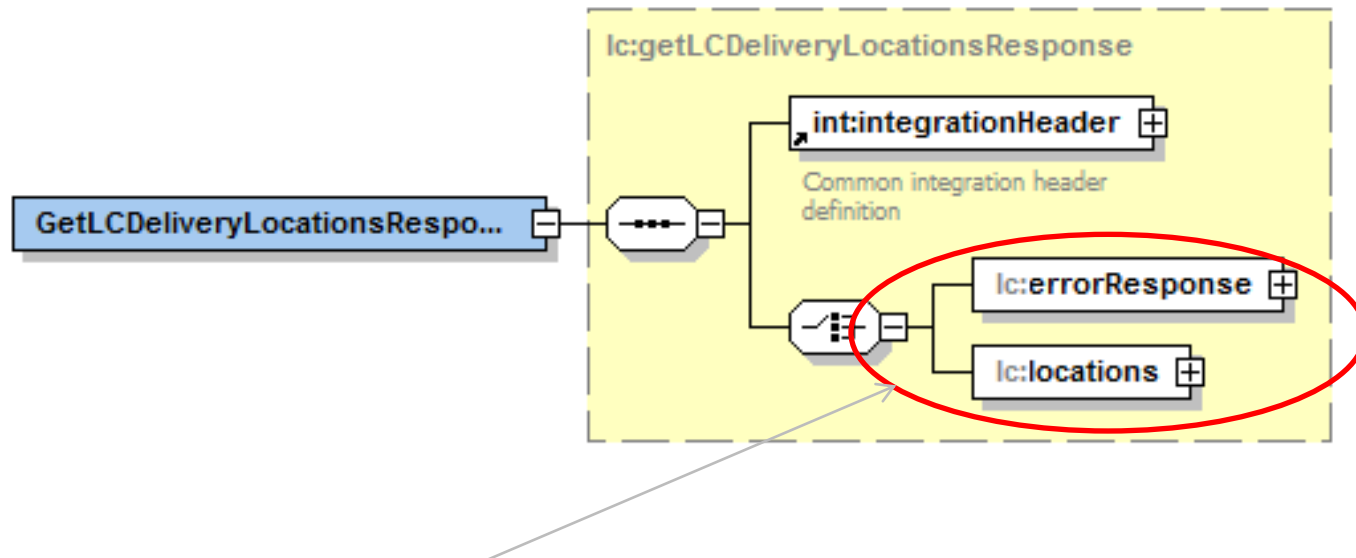
Input Message for GetLCDeliveryLocations:

The Get Location request can be made against postcode or geospatial information.

An estimated delivery date (between 1 and 30 days in the future) needs to be provided along with an optional radius.

Output Message Format (Get Locations)

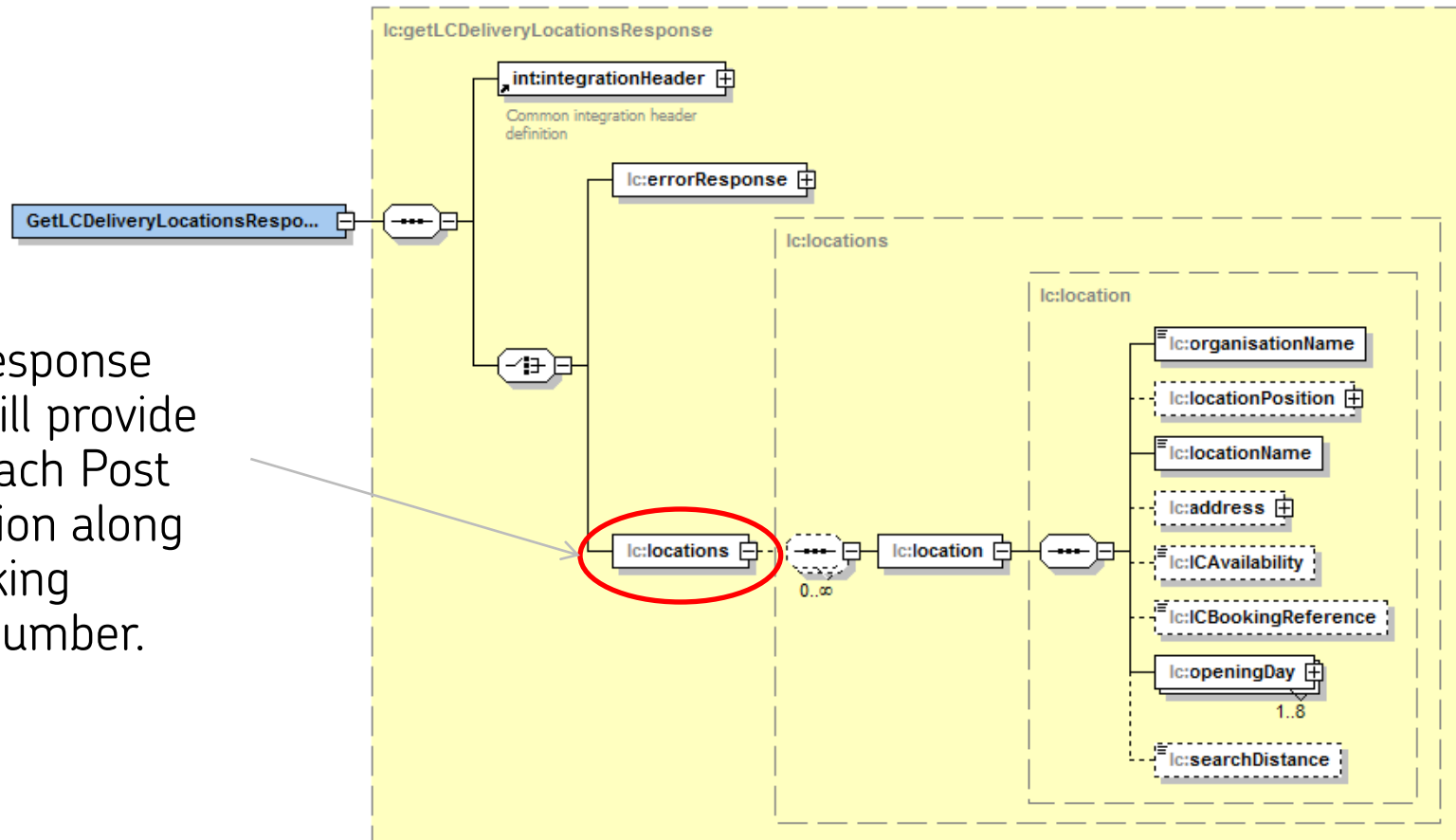GetLCDeliveryLocations Response Structure:

The response message will either include a business error response or a list of Post Office locations based on the input credentials supplied in the web service request.

Output Message Format (Get Locations)
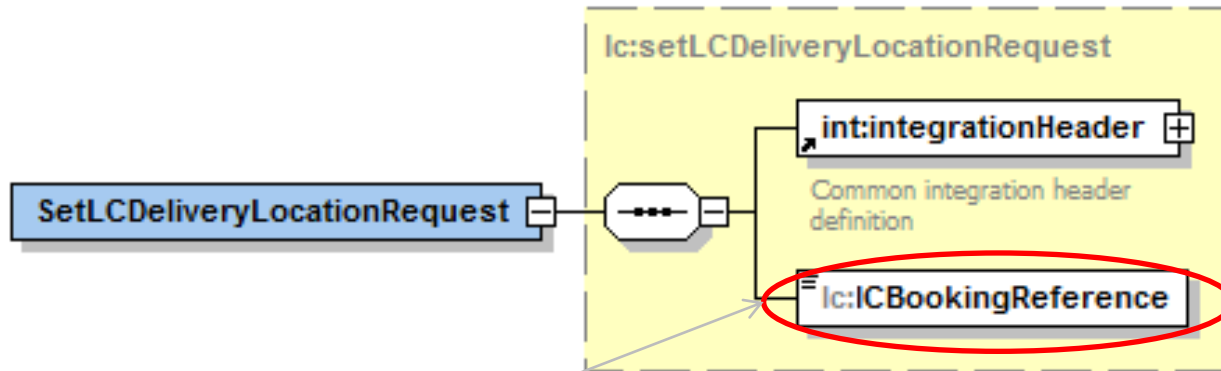
GetLCDeliveryLocations Response Structure:

Business response message will provide details of each Post Office location along with a booking reference number.

Input Message Format (Set Location)

SetLCDeliveryLocation Request Structure:

To book the capacity at the selected location, the correct booking / reservation code (returned as part of the getLCDeliveryLocations call) must be used.

Output Message Format (Set Location)

SetLCDeliveryLocation Response Structure:
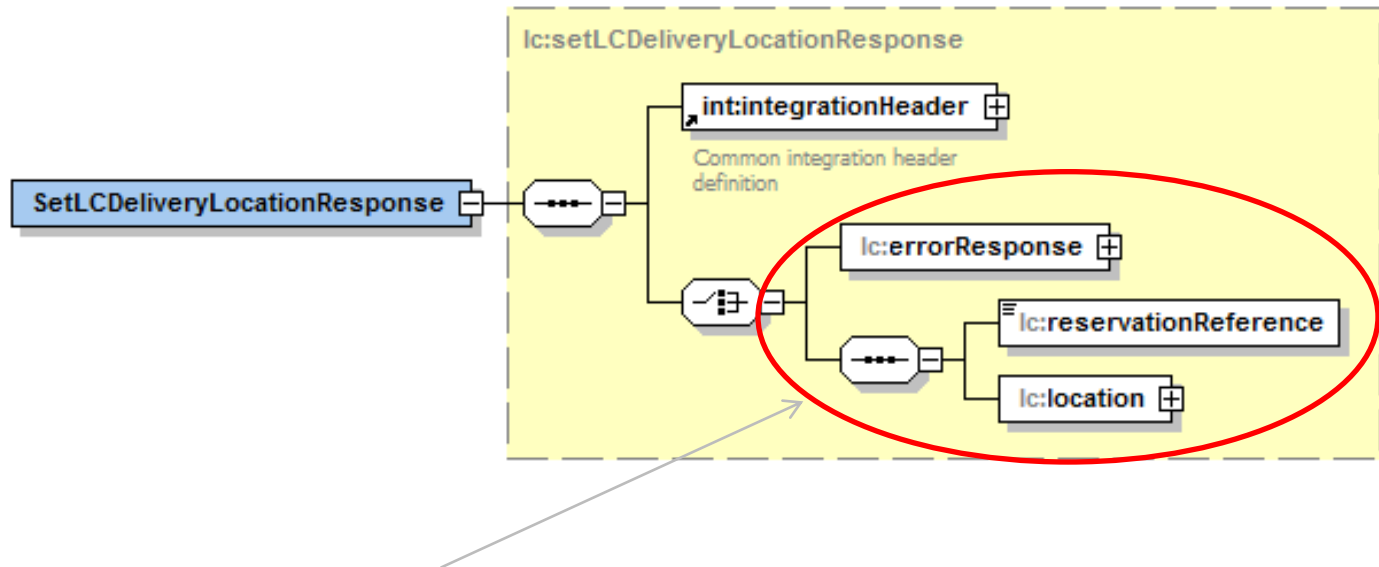
The response message will either include a business error response or a confirmation number (not required to collect the parcel) and a repeat of the location details (name, address etc) of the Post Office selected.

API Usage Conditions

- It is not permitted for customers to cache results from the GetLCDeliveryLocations service.

- Reservation codes are only valid for 10 minutes. If a consumer takes longer than 10 minutes from selecting an available Post Office to confirming the order, a further call to GetLCDeliveryLocations must be made to retrieve a new reservation code.

- If a call is made to the SetLCDeliveryLocation operation with an invalid reservation code the web service will return a business error.

Business Error Messages

- The following structure is used to return business error messages in the web service response:
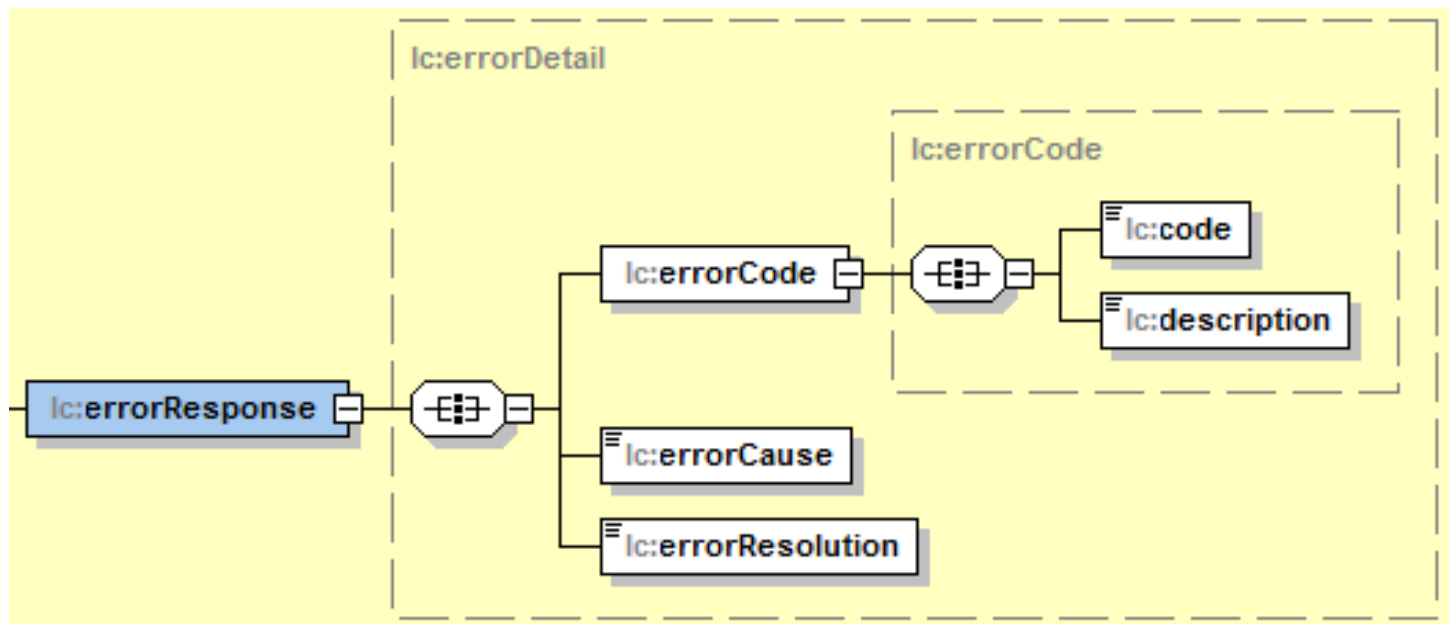
Business Error Messages

The following information can be returned for business errors:

errorCode		errorCause	errorResolution
code	description		
E1001	Postcode X invalid.	Postcode is not a recognised UK Postcode	Resubmit query with a valid Postcode. Alternatively submit with valid Latitude/Longitude coordinates.
E1002	Latitude X or Longitude Y invalid.	Either Latitude or Longitude is outside UK boundaries.	Resubmit query with location within UK boundaries. Note the UK Bounding Box is taken as: NE 60.85469, 1.76896 SW 49.16209, –8.638 Alternatively submit request with a valid Postcode.
E1003	Delivery Date X invalid.	The delivery date submitted is in the past	Resubmit query with a delivery date in the future. Note that "today's date" is considered invalid.
E1005	Radius X invalid.	The radius must fall in the range 1–99 inclusive,	The radius must fall in the range 1–99 inclusive.
E1007	Invalid request for setLCDeliveryLocationRequest	The LCBookingReference is invalid.	Resubmit the GetLCDeliveryLocationsRequest to obtain a valid set of data
E1008	Invalid request for setLCDeliveryLocationRequest	This LCBookingReference code has already been used.	Resubmit the GetLCDeliveryLocationsRequest to obtain a new LCBookingReference
E1011	Delivery Date should be on or before X.	The Delivery Date submitted is too far into the future.	Resubmit query with a Delivery Date on or before X.

Technical Error Messages

All technical exceptions are captured and returned as SOAP Faults with the following information provided in the response:

faultcode	faultstring	detail	
		code	description
Server	Internal Error	E0000	Internal Exception Occurred
Server	Service Unavailable	E0001	Service Unavailable
Server	Service Temporarily Unavailable	E0002	Service Temporarily Unavailable
Server	Unknown Service Error	E0003	Service is unavailable due to an unknown reason. Contact RMG Customer Experience Team.
Client	Invalid Request	E0004	Failed Schema Validation
Server	Unknown Service Error	E0005	No Response Received from Business Fulfilment System Web Service (Service is Unavailable or Timeout)
Server	Internal Error	E0009	Business Fulfilment System Returned an Error Response
Server	Service Unavailable	E0010	Configured Throttling Rate for Service Exceeded. Please try again later.

Security

- HTTPS is the transport protocol between the customer and Royal Mail. Security is provided via mutual authentication over a secure channel.

- Customers will need to raise a certificate signing request with the Royal Mail Certificate Authority. Royal Mail will provide the customer with the CA certificate and the signed client certificate.

- Customers are required to install the Royal Mail root and client certificates on their system.

- Customers are required to use the Royal Mail Root certificate to validate the Royal Mail server certificate as part of the authentication process.

Non-Functional Characteristics

- Service Hours:

  - The Local Collect API is available 24 hours per day x 365 days per year.

- Maintenance Window:

  - The Local Collect terms and conditions define the maintenance window for this service.

- Performance:

  - Performance testing has validated that the Local Collect web service responds to SOAP calls in less than 2 seconds (on average) from the edge of Royal Mail's UK data centre.