



Education & Skills
Funding Agency

LRS Web Services Interface Specification

September 2022

Audience: MI suppliers and IT developers



Contents

1	Introduction	6
1.1	Background.....	6
1.2	Audience.....	6
1.3	Purpose	6
1.4	Scope	6
1.5	Changes in this version.....	6
2	Web Services Overview	7
2.1	Overview.....	7
2.2	Security.....	7
2.2.1	Transport protocol.....	7
2.2.2	Client certificates	8
2.2.3	Organisation-level authentication	8
2.2.4	Transport Layer Security (TLS) – supported version	8
2.2.5	Availability of WSDL.....	8
2.3	Operation style/encoding	8
2.4	Process flow	9
2.5	Auditing.....	11
2.6	Error handling	11
2.7	Versioning.....	11
2.8	End points.....	11
3	Message Formats	12
3.1	WSDL structure	12
3.1.1	Definitions.....	12
3.1.2	Types.....	12
3.1.3	Message.....	12
3.1.4	Port type	13
3.1.5	Binding.....	13
3.1.6	Service.....	13
3.2	Escape sequences.....	14
3.3	File encoding	14
3.4	Standard parameters	14
3.5	Standard error response	15
4	Operations	16
4.1	Get Learner Learning Events	17



Education & Skills Funding Agency

4.1.1	Description.....	17
4.1.2	Common input fields	18
4.1.3	Parameters	18
4.1.4	Reponse type – GetLearningEventsResponse.....	19
4.1.5	LearningEvent (GetType = FULL)	20
4.1.6	Learning Event (GetType = BRIEF)	22
4.1.7	Sample XML requests – request.....	23
4.1.8	Sample XML requests – response	23
4.2	Find Learner by ULN.....	24
4.2.1	Description.....	24
4.2.2	Conditions.....	24
4.2.3	Parameters	24
4.2.4	Data returned (FindType = “CHK”).....	25
4.2.5	Data returned (FindType = “FUL”).....	25
4.3	Find Learner by Demographics.....	27
4.3.1	Description.....	27
4.3.2	Conditions.....	27
4.3.3	Parameters	28
4.3.4	Data returned (FindType = “CHK”).....	29
4.3.5	Data returned (FindType = “FUL”).....	29
4.4	Register Single Learner	32
4.4.1	Pre-condition.....	32
4.4.2	Description.....	32
4.4.3	Conditions.....	32
4.4.4	Parameters	32
4.4.5	Data returned.....	34
4.5	Update Learner	35
4.5.1	Description.....	35
4.5.2	Conditions.....	35
4.5.3	Parameters	36
4.5.4	Data returned.....	38
4.6	Submit Batch Learner Registration	38
4.6.1	Description.....	38
4.6.2	Conditions.....	39
4.6.3	Reference documents.....	39
4.6.4	Parameters	39
4.6.5	Data returned.....	41



Education & Skills Funding Agency

4.7	Get Batch Learner Registration Output	42
4.7.1	Description.....	42
4.7.2	Parameters	42
4.7.3	Data returned.....	42
4.8	Verify Learner Details	44
4.8.1	Description.....	44
4.8.2	Parameters	45
4.8.3	Data returned.....	45
4.9	Submit Verify Learner Details Batch	49
4.9.1	Description.....	49
4.9.2	Reference documents.....	49
4.9.3	Parameters	49
4.9.4	Data returned.....	50
4.10	Get Verify Learner Details Batch Output	50
4.10.1	Description.....	50
4.10.2	Parameters	50
4.10.3	Data returned.....	50
4.11	Submit Achievement Batch Job (only for Awarding Organisations)	54
4.11.1	Description.....	54
4.11.2	Input parameters.....	55
4.11.3	Data returned.....	59
4.12	Get Achievement Batch Job (only for Awarding Organisations)	60
4.12.1	Description.....	60
4.12.2	Input Parameters	60
4.12.3	Data returned.....	60
Appendix A – Response Codes		64
Appendix B – Error Codes		67
B.1	Error code listing.....	67
Appendix C – Reference Data.....		69
C.1	Ability to share	69
C.2	Gender.....	69
C.3	Nationality	69
C.4	Verification type	75
C.5	Learner status.....	75
Appendix D – Regular Expressions for Validation		77
D.1	Date regular expression.....	77
D.2	Postcode regular expression.....	77



Education & Skills Funding Agency

D.3	Email regular expression	77
Appendix E – LRB Batch Processing Return Codes		78
Appendix F – VLD Batch Processing Return Codes.....		83
F.1	Return codes	83
F.2	Failure flags	83
Appendix G – Restrictions on Learner Data		85
G.1	Valid date of birth.....	85
G.2	Valid names.....	85
G.3	Prohibited postcodes	86
G.4	Prohibited text.....	86
Appendix H – Achievement Batch Processing Error Codes.....		87
H.1	Batch rejection reasons	87
H.2	Achievement record (field level) rejection reasons	88



1 Introduction

1.1 Background

The Learning Records Service (LRS) system provides services to the education sector to uniquely identify learners and allocates Unique Learner Numbers (ULNs) to them. Learners have a lifelong record of their learning participation and achievement data. The use of the ULN is simplified all system-to-system interfaces within the sector. The Personal Learning Record facilitates the provision of further learning aims and reduces the administrative burden of registration of learners.

Note: it is possible for two or more ULN Register Records to be part of a 'merged' relationship (where learners have been identified as duplicates within the Portal but relate to a single person). In this case, these ULN Register Records are termed 'Linked' and are associated with a single 'Master' learner. (**Note:** that a learner without a linked learner is also termed a 'Master').

This document defines the LRS Portal Web Service Interface.

1.2 Audience

This document is for those responsible for developing or amending external systems that interface with the LRS web services. A level of technical expertise is assumed.

1.3 Purpose

This document describes the operations exposed by the web services, defining the structure of requests and the corresponding responses which the web services will return.

1.4 Scope

The document defines the technical interface to the LRS web services, including operation descriptions, message format and structure.

External systems using the web services need an agreed relationship or accreditation with the LRS programme obtained via the Education and Skills Funding Agency.

1.5 Changes in this version

There will be no need for organisations using the web services to amend any code associated with supplying and receiving data to and from the LRS Portal. The main changes since the previous version of this specification are as follows:

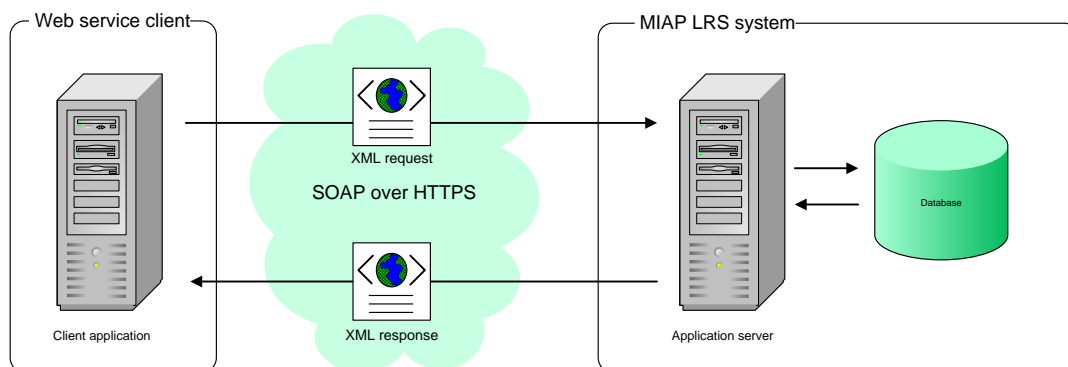
- Clarification and simplification of the previous specification. Relevant elements of the "Getting Started Guide" have also been added to this document.
- Update regarding the Transport Layer Security (TLS) versions supported



2 Web Services Overview

2.1 Overview

Web services are applications invoked remotely, and process requests from other systems without those systems needing to know anything about the implementation behind the service interface. Although the LRS web services are implemented using Java and some .Net technologies, these web services can be consumed by applications built using Java, .Net or other technologies.



The interaction between the web service client and the web services is vendor-neutral, the data format for exchange of data being XML over SOAP. This ensures a message format which is platform and language-independent, widely understood and easily validated.

This section of the document describes the operation style for the web services. It explains at a generic level both the structure of WSDL files that define the message formats and the flow of processing for LRS Portal web service requests, and also covers security and auditing considerations.

2.2 Security

The operations exposed by the web services provide access to sensitive data, thereby requiring the security perimeter of LRS to be extended. It is therefore essential that any system permitted to access the web service has suitable security precautions of its own.

Each system which will access the web service must first undergo compatibility testing by the LRS programme prior to being granted access. Such compatibility testing will include checks that ensure that the client application:

- Provides an appropriate level of user security (for example, it has a logon facility secured by username/password) and controls access to those functions which in turn provide access to the LRS.
- Provides a level of physical security to protect the source code and the digital certificate that provide access to the LRS.
- Uses the web service calls appropriately - in both a business and technical sense.
- Provides the correct UKPRN or Organisation Reference and an appropriate User ID required by the web service in order for LRS to maintain an audit trail.

2.2.1 Transport protocol

The transport protocol must be used for interactions with the web services is HTTPS. The HTTP protocol is the most common transport for SOAP web service requests – in this case, additional security requirements dictate that HTTPS be used instead.



The SOAP messages will not be digitally signed as the HTTPS transport ensures the message integrity and confidentiality of the data packets being exchanged between client applications and the web service.

2.2.2 Client certificates

External systems will be issued with SSL certificates in order that they can connect their client applications to the web services. The SSL certificate will be sent once the solution has been approved and at the same time as go live.

If necessary, the LRS may revoke a SSL certificate in order to prevent access to the web services – in the case where multiple external systems are using the same certificate (for example, all schools using the same MIS vendor's system) all the external systems will lose their connection capability.

2.2.3 Organisation-level authentication

Although HTTPS ensures the security of the XML messages and a level of authentication using client certificates, a secondary level of authentication is required to ensure that the individual organisation is permitted to invoke the service. As multiple organisations may be using the same security certificate issued to a MIS vendor, a mechanism is in place within the LRS Portal system, which can be used to deny access to an individual organisation. The same mechanism will also restrict access to the individual Web Service Operations. This is controlled by the Access Profile setup for an Organisation.

In addition to this, each individual call to a web service operation must also include the password assigned to the Organisation which will be used to authenticate the request.

2.2.4 Transport Layer Security (TLS) – supported version

LRS only supports the use of TLS1.2 and later version connections for web service operations in the test and production environment. TLS is a cryptographic protocol used to establish a secure communication channel between two systems. It is used to authenticate one or both systems and protect the confidentiality and integrity of information that passed between systems.

2.2.5 Availability of WSDL

WSDL files are sometimes published to a UDDI (Universal Description, Discovery and Integration) registry. This is a public repository for web service definitions, allowing users to search for web services and find out how to access these.

In the case of the LRS Portal web service, the WSDL files will not be made publicly available – they will only be provided on request. This is to discourage unauthorised users to attempt to connect with the service.

These can be found on the Developers' Team Site.

2.3 Operation style/encoding

The web services will be implemented using the SOAP message style of 'document-literal'. The document style / literal use model offers the following advantages:

- WS-I (Web Services Interoperability) compliance.
- Better performance than other style/use models.
- The WSDL clearly defines the document structure and allows developers of web service clients to easily validate the XML they use to invoke the service.



2.4 Process flow

On reaching the web services URL, the Local Traffic Manager in the LRS technical Architecture will validate the client's security certificate. Provided the client certificate is authenticated successfully, then the request will be passed on to the LRS Portal application server. If authentication fails, an error will be returned.

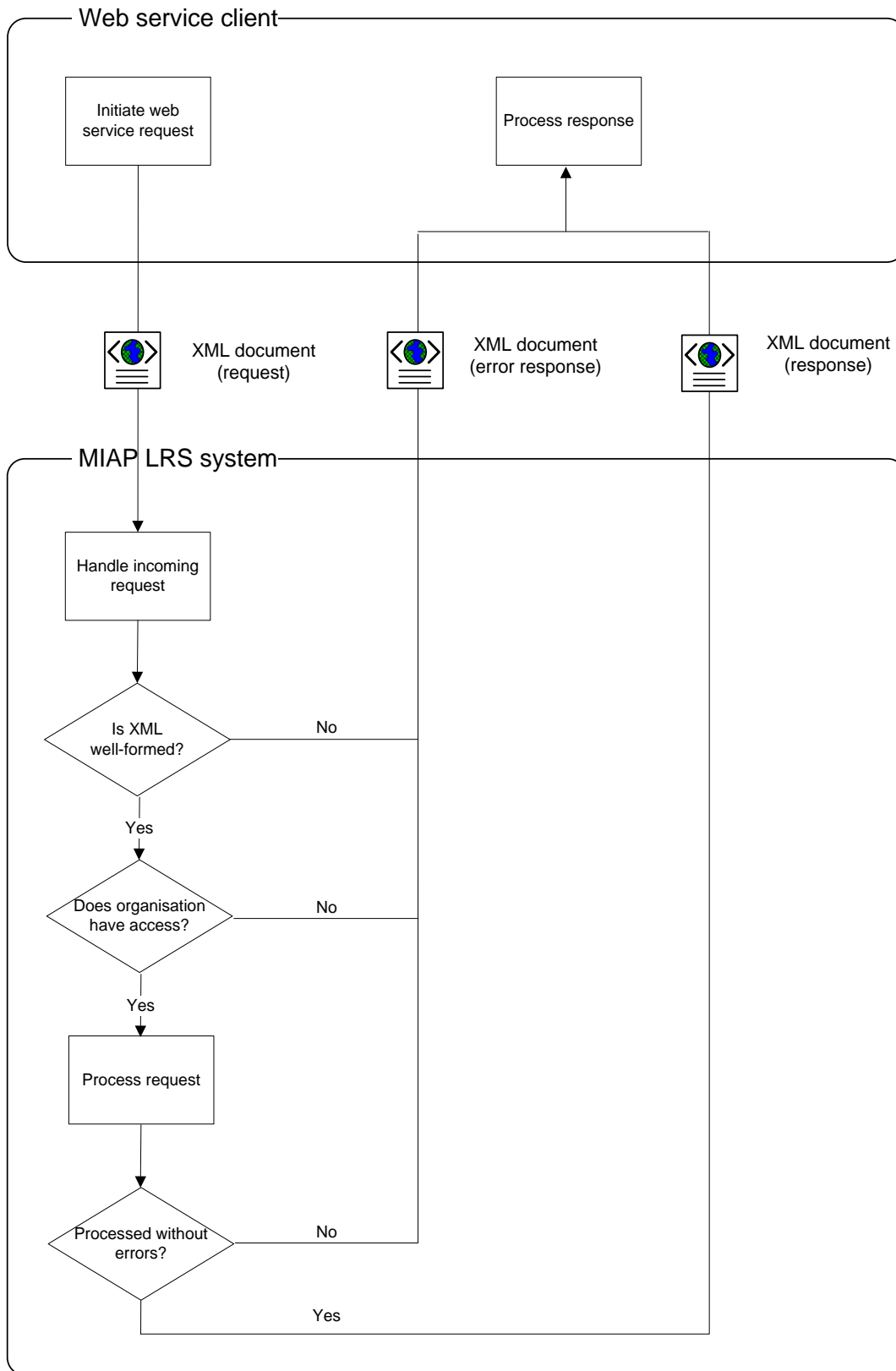
There will be common validation checks on each incoming request to ensure that:

- The XML document is properly formed.
- The XML adheres to the correct schema definition. Standard 'header' information must be present in each request, and the different operations will also require appropriate request parameters.
- The organisation is an authorised user of the service and authorised user of the specific web service operation.

The following diagram illustrates a high-level logical view of the process flow. This is a generic diagram – the batch processing operations may encounter errors relating to individual registrations, but the overall operation will still be deemed successful. The response should be received within 2 hours for all batch files.



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2.5 Auditing

All 'update' requests received through the web services will be audited in the LRS database. The UKPRN or Organisation Reference and Username will be logged in an audit table, and are therefore mandatory in all web service requests.

In this context, the 'Username' will be the individual user's login ID passed through from the client application, and will not equate to a user in the LRS database. As such no attempt will be made to verify the username provided – it is the responsibility of the client application to ensure this is correct.

2.6 Error handling

In the event that an error occurs affecting the whole transaction, a generic error response will be returned, providing an error code from the list in Appendix B, and offering any additional information which helps to identify the cause of the error. They are broadly divided into data validation errors (including badly formed XML documents) and LRS internal processing errors.

Depending on the functionality involved, it may also be appropriate to return record-level errors (for example, in the 'batch registration' function). These will be defined in the XML response in each case.

2.7 Versioning

The interface version is defined by the targetNamespace attribute in the WSDL file.

The current version of the web services will use a URL in the following format:

```
targetNamespace="ws.lrs.imservices.org.uk/LearnerService.svc"
```

Or:

```
targetNamespace="ws.lrs.imservices.org.uk/ExternalService.svc"
```

2.8 End points

This specification covers three separate web services. The Learner Service, the External Service and the LearnerServiceR9. The Learner Service offers methods to do with finding, registering, updating, and verifying learners. The external service offers methods to do with uploading achievements for learners. The LearnerServiceR9 offers a method to view the Personal Learning Record. Each method listed in section 4 will also detail which end point to use.



3 Message Formats

This section describes the structure of the WSDL file and the message formats at a generic level. A full definition of the request/response messages for each individual operation can be obtained from the full WSDL file – any excerpts provided here are purely illustrative examples.

3.1 WSDL structure

The WSDL document describes all that the client application needs to know about locating and consuming a web service. It covers the following aspects:

- What the web service does (the operations it provides).
- How to communicate with the web service (the transport protocol and data type information).
- Where to locate the web service (address information for the service).

The WSDL document is comprised of the following main elements:

- Definitions
- Types
- Message
- Port type
- Binding
- Service

There follows a brief explanation of each element. Note: that this is intended only to provide background information, rather than to be an exhaustive reference – the full W3C WSDL specification can be found at <http://www.w3.org/TR/wsdl>.

3.1.1 Definitions

The <definitions> element forms the root of the WSDL document. It contains all the other elements described below, together with the name of the web service and references to namespaces used.

3.1.2 Types

The <types> element defines all data types used within the request/response definitions for each operation. Default XSD types are used (for example string and int), together with complex type definitions which define objects comprising a number of attributes.

Example:

```
<wsdl:types>
  <schema xmlns="http://www.w3.org/2001/XMLSchema">
    <import namespace="http://api.Portal.LRS.gov.uk/findmsg"
      schemaLocation="./findLearner.xsd" />
  </schema>
</wsdl:types>
```

3.1.3 Message

Each <message> element describes the format of an individual message passed between the client and the web service. These will be the messages forming requests to the web service operations, and the responses which the web service will return.



Each contains a number of <part> elements, which are the individual parameters or return values from which the message is composed.

Example:

```
<wsdl:message name="FindLearnerByULNRequest">
  <wsdl:part element="findlrnr:FindLearnerByULN"
    name="LearnerByULN" />
</wsdl:message>
```

3.1.4 Port type

The <portType> element is a grouping of one or more operations exposed by the web service. Each <operation> contained within here provides a reference to the appropriate input and output <message> types used.

Example:

```
<wsdl:portType name="LearnerPortType">
  <wsdl:operation name="LearnerByULN">
    <wsdl:input message="impl:LearnerByULNRequest"
      name="LearnerByULNRequest" />
    <wsdl:output message="impl:FindLearnerByULNResponse"
      name="FindLearnerByULNResponse" />
    <wsdl:fault name="exception" message="impl:LRSAPIFault" />
  </wsdl:operation>
</wsdl:portType>
```

3.1.5 Binding

The <binding> element defines the details of how the service will be implemented – the transport type, encoding and use.

Example:

```
<wsdl:binding name="LearnerBinding" type="impl:LearnerPortType">
  <wsdlsoap:binding style="document"
    transport="http://schemas.xmlsoap.org/soap/http" />
  <wsdl:operation name="FindLearnerByULN">
    <wsdlsoap:operation soapAction="" />
    <wsdl:input name="FindLearnerByULNRequest">
      <wsdlsoap:body use="literal" />
    </wsdl:input>
    <wsdl:output name="FindLearnerByULNResponse">
      <wsdlsoap:body use="literal" />
    </wsdl:output>
    <wsdl:fault name="exception">
      <wsdlsoap:fault name="exception" use="literal" />
    </wsdl:fault>
  </wsdl:operation>
</wsdl:binding>
```

3.1.6 Service

The <service> element provides the address (URL) of the service in order that the client application knows where to direct its requests.



Example:

```
<wsdl:service name="LearnerService">  
  <wsdl:port binding="impl:LearnerBinding"  
    name="LearnerService">  
    <wsdlsoap:address location="http://..." />  
  </wsdl:port>  
</wsdl:service>
```

The WSDL and associated XSDs are available from the developers' Team Site. They have been tested with svcutil (Microsoft tool), SoapUI and Load Runner.

It is recommended that proxy classes are generated from WSDL available from the developers' Team Site. Details of the compatibility service are available on the developers' Team Site. These include the procedures for booking test slots and the necessary test URLs for the web services set out in this document.

3.2 Escape sequences

In order to qualify as a valid XML document, the file must not include ampersand, angle bracket, quote or apostrophe characters in their literal form within the data. Instead, the following escape sequences should be used:

Character	XML escape sequence
<	<
>	>
&	&
“	"
‘	'

3.3 File encoding

All files submitted to the system must be created using UTF-8 file encoding. This is because ANSI files (the default for many Windows applications) containing 'special' characters such as pound signs are not interpreted the same way in other OSes.

In the case of XML files, the XML declaration should also state this, i.e.

```
<?xml version="1.0" encoding="UTF-8"?>
```

It is important to note that including the above declaration alone is not sufficient - the file must actually be saved in the correct format.

3.4 Standard parameters

Every request submitted to the web services must contain the following mandatory fields within the XML structure apart from Submit Achievement Batch Job and Get Achievement Batch Job – please see these sections for those parameters.



Name	Type	Description	Mandatory
UKPRN	String (8)	Fixed-length eight-character identifier relating to an UK Provider Reference Number in the LRS database e.g. 12345678	Y*
OrganisationRef	String (6)	Fixed-length six-character identifier e.g. U12345	Y*
OrgPassword	String (16)	Fixed-length sixteen-character password used to authenticate the Organisation in the LRS	Y
UserName	String (35)	Username from the client application	Y

* One or the other must be provided

3.5 Standard error response

If an error occurs in the web service, the following details will be returned.

Name	Type	Description
ErrorCode	String	Error code as shown Appendix B of this document.
ErrorActor	String	The class within the PORTAL web application where the error occurred. This is only provided in case it is required by LRS support in order to diagnose the cause of a problem.
TimeStamp	String	Date and time that the error occurred (format YYYY-MM-DD HH:MM:SS) Again, this is for diagnostic purposes.
ErrorDescription	String	Short error description (a more detailed description can be found in Appendix B of this document).



4 Operations

This section lists all of the operations exposed through the web services. A brief description of each operation is followed by details of all parameters and return types.

For non-mandatory parameters, the element need not be supplied. However, it can also be supplied as a null/empty element:

```
<MiddleOtherName />
```

or

```
<MiddleOtherName></MiddleOtherName>
```

or

```
<MiddleOtherName xsi:nil="true"></MiddleOtherName>
```

or

```
<MiddleOtherName xsi:nil="true"/>
```

With the Update Learner operation, extra care should be taken to pass null values only when the update is intended to overwrite the LRS data with null value. For example, if MiddleOtherName is supplied as any of the above in the update and if the LRS holds a MiddleOtherName for the Learner, the update will make the LRS data for MiddleOtherName null. However, if the MiddleOtherName element is omitted from the UpdateLearner call altogether, then it will remain unchanged. (Note that this update logic does not apply to the batch submission function).

Please note you must specify the XSI namespace at the top of the SOAP envelope.

The use of the string "null" should be avoided as this may result in searches or updates being performed using this value as a string.

Where the LRS Portal does not hold data for a particular field, this element will not be returned in the response message.

The web services expose a number of operations to facilitate searching for, registering and updating Learners.

Most of these operations are transactional – the client will issue a request and receive a synchronous response. These are:

- Find Learner by ULN
- Find Learner by Demographics
- Register Single Learner
- Update Learner
- Verify Learner Details
- Get Learner Learning Events

In addition, there are some operations which support the registration of Learners and submission of achievement data in 'batch' mode. These operations are asynchronous, in



that the submission of the batch and the retrieval of the output are necessarily disconnected (time needs to be allowed for the processing to occur in between). These operations are:

- Submit Batch Learner Registration
- Get Batch Learner Registration Output
- Submit Verify Learner Details Batch
- Get Verify Learner Details Batch Output
- Submit Achievement Batch Job (Awarding Organisations only)
- Get Achievement Batch Job (Awarding Organisations only)

A more detailed description of each operation follows.

Conditions

Every web service message sent needs to have the UKPRN and password for the organisation which has sent it. The solution cannot use 1 org details for every organisation.

For each deployment of the solution you should be able to change your solution to have the correct UKPRN and password for that organisation you are installing the solution at.

The solution must capture a user id to help trace a transaction, should a problem in the use of the service be reported. This is your own MIS user Id and not a LRS username.

Only authorised users of your solution with permission to view learners details should be given access. Public access is breaking the confidentiality and security of the solution.

4.1 Get Learner Learning Events

4.1.1 Description

This operation provides the ability to retrieve the learning events (both participation and achievement) for a learner as held on the LRS. This is used mainly by an organisational user (UserType = ORG) to retrieve information about a learner's learning events. The learning events held in LRS can come from three distinct sources:

- An Individualised Learning Return to the Skills Funding Agency from a participating Provider;
- Achievements sourced from the National Pupil Database which are largely for Key Stage 4 and Key Stage 5;
- Achievements provided directly by participating Awarding organisations.

This operation does not return the learner demographic data. The calling system has the option of requesting a FULL / BRIEF version of data. The BRIEF version alters the response to remove extra fields. If the learner has not opted to share, none of the data is returned by this operation.

The web service method requires the Learner to be verified by the provision of their Unique Learner Number (ULN) and key identification details of which Given Name and Family name are mandatory whilst their date of birth and gender are optional but encouraged to provide a better level of Learner verification.

When the use of the operation has been authorised by the LRS and the Learner successfully verified then any Learning events from all of the above sources that exist for the Learner are returned. Not all data item in the return message format are available from all of our sources.



The output message formats show which items are applicable for each source and also the items which are returned when a BRIEF response is requested.

The response contains the learner ULN originally supplied, Master ULN if linked learner ULN was supplied in request, response code and the learning events found. Learning events are returned as an array of learning events – if the Learner has linked ULNs then the learning events for all the linked learners are returned. If no events are found or none can be returned (if the Learner has not chosen to share or all the learning events are marked sensitive) they are not presented and the response ends after the response code and ULNs.

This method is available on the Learner ServiceR9.

4.1.2 Common input fields

The following input parameters are used across the web services.

Name	Type	Description	Mandatory
invokingOrganisation	Organisation	Common Organisation complex type. The four following fields are grouped into a complex type to ensure consistency across all operations.	Yes
Password	String (16)	Fixed-length sixteen-character password used to authenticate the Organisation in the LRS	Yes
Ukprn	String(8)	Fixed-length eight-character identifier relating to an UK Provider Reference Number in the LRS database	One of UKPRN or Organisation Reference (6 digit but deprecated). UKPRN is preferred
Reference	String(6)	Fixed-length six-character identifier relating to an Organisation Reference in the LRS database	
Username	String(35)	Username from the client application	Yes

4.1.3 Parameters

Name	Type	Description	Mandatory
------	------	-------------	-----------



invokingOrganisation	Organisation	Common Organisation complex type. See Section 4.1.2.	Yes
vendorID	Integer	The VendorID will be supplied to the software vendor by Agency as part of the compatibility testing process. Note: a new Vendor ID will be supplied for the Production environment.	Yes
userType	String(3)	The type of remote user. Must be one of ORG (organisational user)	Yes
language	String(3)	Language of the calling system.	No
uln	String(10)	Unique Learner Number	Yes
givenName	String(35)	Given name	Yes
familyName	String(35)	Family name	Yes
dateOfBirth	String(10)	Date of Birth (format YYYY-MM-DD and not greater than current system date) Should comply with Date regular expression defined in Appendix D	No
gender	String(1)	Gender See section Appendix C for values.	No
getType	String(5)	The type of results to be returned, where FULL = full details, BRIEF = reduced payload.	Yes
dateOfBirth	String(10)	Date of Birth (format YYYY-MM-DD and not greater than current system date) Should comply with Date regular expression defined in Appendix D	No

4.1.4 Reponse type – GetLearningEventsResponse

Name	Type	Description
ResponseCode	String(8)	The outcome of the request. This will be one of the following: <ul style="list-style-type: none">• WSRC0004 (Exact match)• WSRC0022 (Linked learner)



		<ul style="list-style-type: none"> WSEC0206 (Learner has not opted to share data) – no Learning Events returned WSEC0208 (Learner could not be verified)
IncomingULN	String(10)	Incoming ULN
FoundULN	String(10)	Master ULN if linked learner is supplied; else Incoming ULN.
LearnerRecord	Array of LearningEvent	No Learning Events are returned if the ResponseCode is WSEC0206

4.1.5 LearningEvent (GetType = FULL)

Name	Type	Description
ID	Integer	
AchievementProviderUkprn	String(8)	UKPRN of the providing organisation
AchievementProviderName	String(255)	Name of the providing organisation
AwardingOrganisationName	String(255)	Name of the awarding organisation
QualificationType	String(255)	Title of the Qualification Type (Only for ILR/NP and QCF Qualifications)
SubjectCode	String(10)	The external identifier of the qualification
AchievementAwardDate	String(10)	The date when achievement was awarded (format YYYY-MM-DD)
Credits	Long	The number of credits achieved as a result of the learning event
Source	String(5)	The identifier of the source of the Learning Event e.g. ILR, NPD
DateLoaded	String(19)	Date when the learning event was loaded (format YYYY-MM-DD hh:mm:ss)
UnderDataChallenge	String(1)	Indicates that the learning event is subject to data challenge
Level	String(255)	Level description of the qualification.
Status	String(1)	Indicates the status of the achievement. Can be one of the following:



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		<p>'F' – Final award</p> <p>'P' – Provisional award</p> <p>For ILR / NPD, this is always 'F'</p>																		
Subject	String(255)	Title of the subject																		
Grade	String(60)																			
AwardingOrganisationUkprn	String(8)	Code for the awarding organisation																		
The following fields are returned only when source is ILR / NPD																				
CollectionType	String(2)	<p>Type of the collection one of the following single upper case letter</p> <p>For ILR</p> <ul style="list-style-type: none"> • W (for WBL in academic year 2007/08 and ER for 2008/09 onwards, includes ESF) • F (for FE in 2007/08 and LR for 2008/09 onwards) • U (for UFI) • C (for ACL in 2007/08 and ASL for 2008/09 onwards) • S (for SILR for 2011/12 onwards) <p>For NPD</p> <ul style="list-style-type: none"> • O (for KS4 results) • A (for KS5 results) 																		
ReturnNumber	String(2)	<p>The return number</p> <p>The valid Return Number depends upon Data Bin and Collection Type</p> <table border="1"> <thead> <tr> <th>Data Bin</th> <th>Collection Type</th> <th>Valid Return Numbers</th> </tr> </thead> <tbody> <tr> <td>ILR</td> <td>W</td> <td>01 – 13</td> </tr> <tr> <td>ILR</td> <td>F</td> <td>01 – 05</td> </tr> <tr> <td>ILR</td> <td>U</td> <td>01 – 05</td> </tr> <tr> <td>ILR</td> <td>C</td> <td>01 – 05</td> </tr> <tr> <td>NPD</td> <td>O</td> <td>01 (for initial) 02 (for provisional) 03 (for final)</td> </tr> </tbody> </table>	Data Bin	Collection Type	Valid Return Numbers	ILR	W	01 – 13	ILR	F	01 – 05	ILR	U	01 – 05	ILR	C	01 – 05	NPD	O	01 (for initial) 02 (for provisional) 03 (for final)
Data Bin	Collection Type	Valid Return Numbers																		
ILR	W	01 – 13																		
ILR	F	01 – 05																		
ILR	U	01 – 05																		
ILR	C	01 – 05																		
NPD	O	01 (for initial) 02 (for provisional) 03 (for final)																		



		NPD	A	01 (for initial) 02 (for provisional) 03 (for final)
ParticipationStartDate	String(10)	The start date of the participation (format YYYY-MM-DD)		
ParticipationEndDate	String(10)	The end date of the participation (format YYYY-MM-DD)		
The following fields are returned only for awarding organisation achievements				
LanguageForAssessment	String(3)	The language of the learning event.		

4.1.6 Learning Event (GetType = BRIEF)

Name	Type	Description
ID	Integer	
AchievementAwardDate	String(10)	The date when achievement was awarded (format YYYY-MM-DD)
Credits	Long	The number of credits achieved as a result of the learning event
Source	String(5)	The identifier of the source of the Learning Event e.g. ILR, NPD
Level	String(255)	Level description of the qualification.
Subject	String(255)	Title of the subject
Credits	Long	The number of credits achieved as a result of the learning event
Grade	String(60)	
SubjectCode	String(10)	Code of the Subject
AchievementProviderUkprn	String(8)	UKPRN of the providing organisation
The following fields are returned only when source is ILR / NPD		
ParticipationStartDate	String (10)	The start date of the participation (format YYYY-MM-DD)



ParticipationEndDate	String (10)	The end date of the participation (format YYYY-MM-DD)
----------------------	-------------	-------------------------------------------------------

4.1.7 Sample XML requests – request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:tem="http://tempuri.org/"
xmlns:"http://schemas.datacontract.org/2004/07/Amor.Qcf.Service.Interface">
<soapenv:Header />
<soapenv:Body>
<tem:GetLearnerLearningEvents>
<tem:invokingOrganisation>
<!--Optional:-->
<OrganisationRef>TEST1</OrganisationRef>
<!--Optional:-->
<Password>TEST123456789101</Password>
<!--Optional:-->
<!--<Ukprn></Ukprn>-->
<!--Optional:-->
<Username>TEST1</Username>
</tem:invokingOrganisation><
tem:userType>SER</tem:userType>
<tem:vendorID>1</tem:vendorID>
<tem:language>ENG</tem:language>
<tem:uln>1234567890</tem:uln>
<tem:givenName>Test</tem:givenName>
<tem:familyName>Learner</tem:familyName>
<tem:dateOfBirth>1983-01-21</tem:dateOfBirth>
<tem:gender>1</tem:gender>
<tem:getType>FULL</tem:getType>
</tem:GetLearnerLearningEvents>
</soapenv:Body>
</soapenv:Envelope>
```

4.1.8 Sample XML requests – response

```
<s:Envelope xmlns:s="http://schemas.xmlsoap.org/soap/envelope/">
<s:Body>
<GetLearnerLearningEventsResponse xmlns="http://tempuri.org/">
<GetLearnerLearningEventsResult xmlns:a="http://api.lrs.qcf.gov.uk/model"
xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
<a:ResponseCode>WSRC0004</a:ResponseCode>
<a:FoundULN>1234567890</a:FoundULN>
<a:IncomingULN>1234567890</a:IncomingULN>
<a:LearnerRecord>
<a:LearningEvent>
<a:AchievementAwardDate>2010-01-01</a:AchievementAwardDate>
<a:AchievementProviderName>TEST90000051</a:AchievementProviderName>
<a:AchievementProviderUkprn>90000051</a:AchievementProviderUkprn>
<a:AwardingOrganisationName>Pearson Education Ltd</a:AwardingOrganisationName>
```



```
<a:AwardingOrganisationUkprn>90000051</a:AwardingOrganisationUkprn>
<a:Credits>2</a:Credits>
<a:DateLoaded>2014-05-21 14:49:01</a:DateLoaded>
<a:Grade>Pass</a:Grade>
<a:ID>28538264</a:ID>
<a:LanguageForAssessment>English</a:LanguageForAssessment>
<a:Level>Entry Level</a:Level>
<a:Restriction>0</a:Restriction>
<a:Source>QCFU</a:Source>
<a>Status>F</a>Status>
<a:Subject>Introduction to Construction Work: Entry 3</a:Subject>
<a:SubjectCode>K/501/5773</a:SubjectCode>
<a:UnderDataChallenge>N</a:UnderDataChallenge>
</a:LearningEvent>
</a:LearnerRecord>
</GetLearnerLearningEventsResult>
</GetLearnerLearningEventsResponse>
</s:Body></s:Envelope>
```

4.2 Find Learner by ULN

4.2.1 Description

This operation provides the ability to search for a learner on LRS.

'Find Learner by ULN' uses the Unique Learner Number, Family Name and Given Name as the search criteria.

If a match occurs on a Linked Learner, then the Master Learner will always be returned instead. For full details searches, the 'masterSubstituted' flag will be set to 'Y' to indicate that this substitution has occurred.

This method is available on the Learner Service.

4.2.2 Conditions

If ULN specified, the solution MUST perform this search, before 'Find by demographics' or 'Register single learner'. ULN may fail due to changes in the ULN details.

A 'Find by Demographic' search MUST be performed after a failed 'Find Learner by ULN' search.

It is recommended that the solution has the ability to check another student does not have the same ULN to prevent students sharing the same ULN or help spot possible duplicate student records.

4.2.3 Parameters

Name	Type	Description	Mandatory
ULN	String(10)	10-digit Unique Learner Number	Y
GivenName	String(35)	Given name	Y



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FamilyName	String(35)	Family name	Y
FindType	String(3)	The type of search results to be returned, where FUL = full details, CHK = status only	Y

4.2.4 Data returned (FindType = “CHK”)

Name	Type	Description
ResponseCode	String	The outcome of the search request. This will be one of the following: <ul style="list-style-type: none"> • WSRC0001 (No match) • WSRC0004 (Exact match) • WSRC0022 (Linked Learner found)
ULN	String	Incoming ULN
GivenName	String	Incoming GivenName
FamilyName	String	Incoming FamilyName

4.2.5 Data returned (FindType = “FUL”)

Name	Type	Description
ResponseCode	String	The outcome of the search request. This will be one of the following: <ul style="list-style-type: none"> • WSRC0001 (No match) • WSRC0004 (Exact match)
ULN	String	Incoming ULN
GivenName	String	Incoming GivenName
FamilyName	String	Incoming FamilyName
<p>When the outcome is ‘Exact Match’/ ‘Linked Learner Found’, the following items will be returned for the Learner. (If the ULN searched on was a Linked record, then details for the Master ULN Register record will be returned). For items where the system does not hold any data, the element will not be returned in the response.</p>		
CreatedDate	DateTime	Date Learner registered on LRS



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LastUpdatedDate	DateTime	Date of last update to ULN Register record
ULN	String	Unique Learner Number
VersionNumber	String	A version number of the ULN Register record used for optimistic locking control of a future update to the record via the Web Service
MasterSubstituted	String	This element is only returned if the master record has been substituted (and will be populated with 'Y').
Title	String	Title
GivenName	String	Given name
MiddleOtherName	String	Middle other name
FamilyName	String	Family name
PreferredGivenName	String	Preferred given name
PreviousFamilyName	String	Previous family name
FamilyNameAt16	String	Family name at age 16
SchoolAtAge16	String	School at age 16
LastKnownAddressLine1	String	Last known address – line 1
LastKnownAddressLine 2	String	Last known address – line 2
LastKnownAddressTown	String	Last known address – town
LastKnownAddressCountyOrCity	String	Last known address – county or city
LastKnownPostCode	String	Last known address – postcode
DateOfAddressCapture	DateTime	Date address was originally recorded
DateOfBirth	DateTime	Date of birth
PlaceOfBirth	String	Place of birth
Gender	String	Gender (see Appendix C for values)
EmailAddress	String	Email address
Nationality	String	Nationality (see Appendix C for values)
ScottishCandidateNumber	String	Scottish Candidate Number (if applicable)



AbilityToShare	String	Whether the Learner has consented to the sharing of their data (see Appendix C for values)
LearnerStatus	String	Status of the Learner (see Appendix C for values)
VerificationType	String	Type of verification provided to confirm Learner's identity (see Appendix C for values)
OtherVerificationDescription	String	Details of verification provided if verification type = 'Other'
TierLevel	Integer	Learner tier level
LinkedULNs	String	0..n occurrences of ULNs (each contained within a <ULN> element) which are linked to this as the 'master' ULN Register record.
Notes	String	Any extra information about the Learner.

4.3 Find Learner by Demographics

4.3.1 Description

This operation provides the ability to search for a Learner on LRS.

'Find Learner by Demographics' uses a number of demographic fields, such as name, gender and postcode in order to locate a Learner.

The minimum search criteria required in order to perform a demographic search are Given Name, Family Name, Date of Birth, Gender and Last Known Postcode. Previous Family Name may also be provided if known, and this will be compared against the Family Name and Previous Family Name held in LRS.

The operation supports two levels of detail – Full and Check. The input search criteria are the same, but the set of fields returned are different. A Check submission merely returns the match outcome, whereas a Full submission returns full details of the Learner. A complete list of the fields returned is provided below.

4.3.2 Conditions

The solution must perform a Demographic search with the update details before performing an update or register to the Learning Records Service.

When a ULN is provided the solution MUST always perform a ULN search first. The solution must only perform a demographic search if the ULN is not supplied or a ULN search has failed.

The solution MUST have the ability to 'Search Again' and not automatically perform 'Register learner' or 'leave the ULN field blank'. This is to encourage users to try different names or addresses to find a match and thus reduce the risk of a duplicate.



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The solution MUST not take information held in LRS to update the clients MIS system. It is expected the information held by your clients, is most current and as long as this is verified, please use this to update LRS records. The only exception to this may be when performing a periodic verification check.

When a ULN is returned by LRS, it is recommended that the solution has the ability to check that another student does not have the same ULN to prevent students sharing the same ULN or help spot possible duplicate student records.

Some students (foreign or sensitive etc.) may have default post code. The solution will allow users to search for ULN's with a default postcode (ZZ99 9ZZ). Generic post code should only be used for learners: No fixed abode, Postcode unavailable, replace restricted postcode.

If a match occurs on a Linked Learner, then the Master Learner will always be returned instead. For a 'Full' search, the 'masterSubstituted' flag within the ULN Register Record(s) will be set to 'Y' to indicate that this substitution has occurred. For a 'Check' search, the 'Master substituted' response code will be returned.

This method is available on the LearnerService.

4.3.3 Parameters

Name	Type	Description	Mandatory
GivenName	String(35)	Given name	Y
FamilyName	String(35)	Family name	Y
PreviousFamilyName	String(35)	Previous family name	N
DateOfBirth	String	Date of Birth (format YYYY-MM-DD and not greater than current system date) Should comply with Date regular expression defined in Appendix D	Y
Gender	String(1)	Gender (see Appendix C for values)	Y
LastKnownPostCode	String(9)	Postcode	
SchoolAtAge16	String(254)	School attended by the Learner at the age of 16	N
PlaceOfBirth	String(35)	Place of birth	N
EmailAddress	String(254)	Email address	N



		Should comply with Email regular expression defined in Appendix D	
FindType	String(3)	The type of search results to be returned, where FUL = full details, CHK = status only	Y

4.3.4 Data returned (FindType = “CHK”)

Name	Type	Description
ResponseCode	String	The outcome of the search request. This will be one of the following: <ul style="list-style-type: none"> • WSRC0001 (No match) • WSRC0002 (Too many matches) • WSRC0003 (Possible matches) • WSRC0004 (Exact match) • WSRC0022 (Linked Learner found)
GivenName	String	Incoming GivenName
FamilyName	String	Incoming FamilyName
PreviousFamilyName	String	Incoming PreviousFamilyName
DateOfBirth	Date	Incoming DateOfBirth (format YYYY-MM-DD)
Gender	String	Incoming Gender
LastKnownPostCode	String	Incoming Postcode
SchoolAtAge16	String	Incoming SchoolAtAge16
PlaceOfBirth	String	Incoming Place of Birth
EmailAddress	String	Incoming Email Address

4.3.5 Data returned (FindType = “FUL”)

Name	Type	Description
ResponseCode	String	The outcome of the search request. This will be one of the following: <ul style="list-style-type: none"> • WSRC0001 (No match) • WSRC0002 (Too many matches) • WSRC0003 (Possible matches) • WSRC0004 (Exact match)



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		<ul style="list-style-type: none"> WSRC0022 (Linked Learner Found)
GivenName	String	Incoming GivenName
FamilyName	String	Incoming FamilyName
PreviousFamilyName	String	Incoming PreviousFamilyName
DateOfBirth	Date	Incoming DateOfBirth (format YYYY-MM-DD)
Gender	String	Incoming Gender
LastKnownPostCode	String	Incoming Postcode
SchoolAtAge16	String	Incoming SchoolAtAge16
PlaceOfBirth	String	Incoming Place of Birth
EmailAddress	String	Incoming Email Address
<p>When the outcome is 'Exact match' the following items will be returned for the matched Learner. If the outcome is 'Possible Matches', then the following items are repeated for each Learner returned by the search. For items where the system does not hold any data, the element will not be returned in the response.</p>		
CreatedDate	String	Date Learner registered on LRS (format YYYY-MM-DD)
LastUpdatedDate	String	Date of last update to ULN Register record (format YYYY-MM-DD)
ULN	String	Unique Learner Number
VersionNumber	String	A version number of the ULN Register record used for optimistic locking control of a future update to the record via the Web Service
MasterSubstituted	String	This element is only returned if the master record has been substituted (and will be populated with 'Y').
Title	String	Title
GivenName	String	Given name
MiddleOtherName	String	Middle other name
FamilyName	String	Family name
PreferredGivenName	String	Preferred given name



Education & Skills Funding Agency

PreviousFamilyName	String	Previous family name
FamilyNameAt16	String	Family name at age 16
SchoolAtAge16	String	School at age 16
LastKnownAddressLine1	String	Last known address – line 1
LastKnownAddressLine 2	String	Last known address – line 2
LastKnownAddressTown	String	Last known address – town
LastKnownAddressCountyOrCity	String	Last known address – county or city
LastKnownPostCode	String	Last known address – postcode
DateOfAddressCapture	String	Date address was originally recorded (format YYYY-MM-DD)
DateOfBirth	String	Date of birth (format YYYY-MM-DD)
PlaceOfBirth	String	Place of birth
Gender	String	Gender (see Appendix C for values)
EmailAddress	String	Email address
Nationality	String	Nationality (see Appendix C for values)
ScottishCandidateNumber	String	Scottish Candidate Number (if applicable)
AbilityToShare	String	Whether the Learner has consented to the sharing of their data (see Appendix C for values)
LearnerStatus	String	Status of the Learner (see Appendix C for values)
VerificationType	String	Type of verification provided to confirm Learner's identity (see Appendix C for values)
OtherVerificationDescription	String	Details of verification provided if verification type = 'other'
TierLevel	String	Learner tier level
LinkedULNs	String	0..n occurrences of ULNs (each contained within a <ULN> element) which are linked to this as the 'master' ULN Register record.



Notes	String	Any extra information about the Learner.
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4.4 Register Single Learner

4.4.1 Pre-condition

A Find must precede a Register within a maximum period of 120 minutes otherwise the Register will fail (Error WSRC0021). The LRS performs a check to ascertain that the Find has taken place otherwise the Register will fail (Error WSRC0021).

4.4.2 Description

This operation registers a Learner on LRS, and returns their newly allocated ULN.

Please see Appendix G for the restrictions on data that may be registered on LRS.

4.4.3 Conditions

The solution will perform a 'Find by ULN' and/or 'Find by demographic' search before performing 'Register single learner'.

Verification of the learner details should be obtained from the learner and passed from the clients MIS system to LRS. The solution MUST not set a default value.

Ability to share value MUST not be defaulted. Part of the registration process should give the opportunity for the student to see an FPN or decide whether to share or not share their data:

- Users can set the flag to 'FPN seen and able to share' as long as their organisation has shared the Privacy Notice with their learners.

Students address and postcode should be captured on registration by the provider. The solution MUST not set a default value. Default is only be used on special cases such as Foreign or sensitive learners.

If your solution allows multiple name values in the first name (or given name) field, these need to be split into first and other names. Only double barrelled name should be placed in the given name field together to increase the chances of correctly matching records.

The solution MUST check the date is formatted correctly in your web service call to save failures and possible corrections being needed to LRS.

This method is available on the Learner Service.

4.4.4 Parameters

Name	Type	Description	Mandatory
Title	String(35)	Title	N
GivenName	String(35)	Given name	Y
MiddleOtherName	String(35)	Middle other name	N
FamilyName	String(35)	Family name	Y



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PreferredGivenName	String(35)	Preferred given name	N
PreviousFamilyName	String(35)	Previous family name Must match the value provided when the Find operation was invoked for this learner. If no value was provided during the Find operation, no value should be provided here.	N
FamilyNameAt16	String(35)	Family name at 16	N
SchoolAtAge16	String(254)	School at age 16	N
LastKnownAddressLine1	String(50)	Last known address line 1	N
LastKnownAddressLine2	String(50)	Last known address line 2	N
LastKnownAddressTown	String(50)	Last known address town	N
LastKnownAddressCountyOrCity	String(50)	Last known address county or city	N
LastKnownPostCode	String(9)	Last known postcode Should comply with PostCode regular expression defined in Appendix D	Y
DateOfAddressCapture	String	Date of address capture (format YYYY-MM-DD) Should comply with Date regular expression defined in Appendix D	N
DateOfBirth	String	Date of birth (format YYYY-MM-DD) Should comply with Date regular expression defined in Appendix D	Y
PlaceOfBirth	String(35)	Place of birth	N
EmailAddress	String(254)	Email address	N
Gender	String(1)	Should comply with Email regular expression defined in Appendix D	Y



Nationality	String(3)	Gender (see Appendix C for values)	N
ScottishCandidateNumber	String(9)	Nationality (see Appendix C for values)	N
VerificationType	String(3)	Type of verification provided to confirm Learner's identity (see Appendix C for values)	Y
OtherVerificationDescription	String(255)	Details of verification provided if verification type = 999 ('other')	Y (if verification type = 'other')
AbilityToShare	String(1)	Whether the Learner has consented to the sharing of their data (see Appendix C for values)	Y
Notes	String(4000)	Any extra information about the Learner. Please note that only LRS system administrators have the ability to maintain this field within the portal.	N

4.4.5 Data returned

Name	Type	Description
ResponseCode	String	<ul style="list-style-type: none"> WSRC0005 (Learner successfully registered - an error response message will be returned if the operation fails) WSRC0021 (<ul style="list-style-type: none"> This Response Code may have been caused by the following <ol style="list-style-type: none"> Learner could not be registered as the same learner already exists on the portal. This is confirmed when a learner with the same given name, family name, date of birth, gender and last known postcode, is confirmed to already exist in the portal. Learner could not be registered as the correct registration procedure has not been followed. LRBs must always conduct a search for a learner, before attempting to register that learner, to establish they



		<p>do not already have a ULN. Once it is confirmed that the Learner is not already registered on the portal, they may be registered for a ULN. (If the Learner is found, the returned ULN should be used. If more than one possible match is found the returned matches must first be checked to ensure the Learner is not amongst them before proceeding to register the Learner for a ULN.)</p> <p>3. Learner could not be registered as the system fails to find the supplied details in the Recent Searches Audit Log table carried out within the Maximum Time.</p> <p>4. Learner could not be registered as the Recent search result is a Possible Match but not within the Minimum Time.</p>
ULN	String	The Unique Learner Number generated for the learner

4.5 Update Learner

4.5.1 Description

This operation can be used to update a Learner's details within LRS.

To satisfy the optimistic locking check in LRS that ensures that unexpected updates do not occur, the Learner must have been previously retrieved by a "Find Learner" operation and the returned version number of the ULN Register Record from that Web Service call must be submitted in the update parameters for this operation.

Please see Appendix G for the restrictions on data that may be updated on the LRS.

This method is available on the Learner Service.

4.5.2 Conditions

The solution must perform a 'Find by ULN' or/and 'Find by demographic' search before performing an 'Update learner'.

Ability to share value MUST not be defaulted. Part of the registration process should give the opportunity for the student to see an FPN or decide whether to share or not share their data.

Students address and postcode should be maintained by the provider. The solution MUST not set a default value. Default is only be used on special cases such as Foreign or sensitive learners.

Address and postcode should be updated together and only updated if a new address is provided by the student and verified or to correct an error.

If your solution allows multiple name values in the first name (or given name) field, split these need into first and other names. Only double barrelled name should be placed in the given name field together to increase the chances of correctly matching records.



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Date of birth corrections. The solution should only update LRS DOB records when a correction is required that has been verified by the provider with their learner.

The solution MUST check the date is formatted correctly in your web service call to save failures and possible corrections being needed to LRS.

The solution MUST check that the proposed updates to LRS records do not alter the ULN details for another similar ULN record in your client MIS system. This is to prevent duplicate records being created.

Every update should be accompanied with a verification type if you are changing key fields Given name, Family name, DOB, Post code. Other fields do not require verification evidence.

4.5.3 Parameters

Name	Type	Description	Mandatory
ULN	String(10)	Unique Learner Number	Y
VersionNumber	String(3)	The version number of the record obtained in a previous Find Learner Web Service call	Y
Title	String(35)	Title	N
GivenName	String(35)	Given name	Y
MiddleOtherName	String(35)	Middle other name	N
FamilyName	String(35)	Family name	Y
PreferredGivenName	String(35)	Preferred given name	N
PreviousFamilyName	String(35)	Previous family name	N
FamilyNameAt16	String(35)	Family name at 16	N
SchoolAtAge16	String(254)	School at age 16	N
LastKnownAddressLine1	String(50)	Last known address line 1	N
LastKnownAddressLine 2	String(50)	Last known address line 2	N
LastKnownAddressTown	String(50)	Last known address town	N
LastKnownAddressCountyOrCity	String(50)	Last known address county or city	N
LastKnownPostCode	String(9)	Last known postcode	Y



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		Should comply with PostCode regular expression defined in Appendix D	
DateOfAddressCapture	String	Date of address capture (format YYYY-MM-DD) Should comply with Date regular expression defined in Appendix D	N
DateOfBirth	String	Date of birth (format YYYY-MM-DD) Should comply with Date regular expression defined in Appendix D	Y
PlaceOfBirth	String(35)	Place of birth	N
EmailAddress	String(254)	Email address Should comply with Email regular expression defined in Appendix D	N
Gender	String(1)	Gender (see Appendix C for values)	Y
Nationality	String(3)	Nationality (see Appendix C for values)	N
ScottishCandidateNumber	String(9)	Scottish candidate number	N
VerificationType	String(3)	Type of verification provided to confirm Learner's identity (see Appendix C for values)	Y
OtherVerificationDescription	String(254)	Details of verification provided if verification type = 999(Other)	Y (if verification type = 999 (Other))
AbilityToShare	String(1)	Whether the Learner has consented to the sharing of their data (see Appendix C for values)	Y
Notes	String(4000)	Any extra information about the Learner.	N



		Please note that only LRS system administrators have the ability to maintain this field within the portal.	
--	--	------------------------------------------------------------------------------------------------------------	--

4.5.4 Data returned

Name	Type	Description
ResponseCode	String	<p>One of the following responses indicating the outcome of the operation:</p> <ul style="list-style-type: none">• WSRC0006 (Learner successfully updated)• WSRC0019 (ULN not found for update)• WSRC0013 (ULN has been updated since you last obtained the details.)• WSRC0014 (Invalid change of 'Ability to share' status)• WSRC0020 (Learner not updated as no changes found)• WSRC0021 (Learner could not be updated as a learner with the same given name, family name, date of birth, gender and last known postcode, already exists in the portal, as this would result in a duplicate Learner) <p>If the whole operation fails, then an error response message will be returned instead.</p>

4.6 Submit Batch Learner Registration

4.6.1 Description

This operation enables the batch submission of multiple Learners for registration in one request. For full details on validation and processing of Batch Registration files, refer to the Preparing an LRB Batch guide.

The primary purpose of the batch is for obtaining ULN's. It can also be used for checking of student details in verification only mode.

Please see Appendix G for the restrictions on data that may be registered and updated on LRS.

Some fields become mandatory or remain as optional depending on other fields submitted (e.g. OtherVerificationDescription). Please note that this level of validation is actually applied when the job is processed and not when the web service submits the job. So a web service submission can successfully create a batch job that will fail validation.

This method is available on the Learner Service.



4.6.2 Conditions

The solution MUST return appropriate information to the user in order for the user to resolve the Return/Error Codes.

If your solution allows multiple name values in the first name (or given name) field, split these need into first and other names. Only double barrelled name should be placed in the given name field together to increase the chances of correctly matching records.

Students address and postcode should be captured on registration by the provider, which MUST be included in the batch as part of registration. The solution MUST not set a default value. Default is only be used on special cases such as Foreign or sensitive learners.

A default flag MUST not be set for the FPN field.

4.6.3 Reference documents

The “How to prepare an LRB batch file document can be found on the LRS Developers TeamSite.

4.6.4 Parameters

Name	Type	Description	Mandatory
JobType	String(3)	Whether full submission or verification, where FUL = full submission, CHK = verification	Y
LearnerRecordCount	Int	Number of records submitted (greater than 0, less than or equal to 200)	Y
The following items are repeated for each learner to be registered (minimum 1 occurrence, maximum 200 occurrences)			
ULN	String(10)	Unique Learner Number	N
MisIdentifier	String(128)	An internal identifier for the record in the client application	N
Title	String(35)	Title	N
GivenName	String(35)	Given name	Y



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MiddleOtherName	String(35)	Middle other name	N
FamilyName	String(35)	Family name	Y
PreferredGivenName	String(35)	Preferred given name	N
PreviousFamilyName	String(35)	Previous family name	N
FamilyNameAt16	String(35)	Family name at 16	N
SchoolAtAge16	String(254)	School at age 16	N
LastKnownAddressLine1	String(50)	Last known address line 1	N
LastKnownAddressLine 2	String(50)	Last known address line 2	N
LastKnownAddressTown	String(50)	Last known address town	N
LastKnownAddressCountyOrCity	String(50)	Last known address county or city	N
LastKnownPostCode	String(9)	Last known postcode Should comply with PostCode regular expression defined in Appendix D	N (Mandatory if ULN not provided)
DateOfAddressCapture	String	Date of address capture (format YYYY-MM-DD) Should comply with Date regular expression defined in Appendix D	N
DateOfBirth	String	Date of birth (format YYYY-MM-DD) Should comply with Date regular expression defined in Appendix D	N (Mandatory if ULN not provided)
PlaceOfBirth	String(35)	Place of birth	N
EmailAddress	String(254)	Email address Should comply with Email regular	N



		expression defined in Appendix D	
Gender	String(1)	Gender (see Appendix C for values)	N (Mandatory if ULN not provided)
Nationality	String(3)	Nationality (see Appendix C for values)	N
ScottishCandidateNumber	String(9)	Scottish candidate number	N
VerificationType	String(3)	Type of verification provided to confirm Learner's identity (see Appendix C for values)	N (Y if LRB is submitting record for ULN creation)
OtherVerificationDescription	String(255)	Details of verification provided if verification type = 'other'	Y (if verification type = 'other')
AbilityToShare	String(1)	Whether the Learner has consented to the sharing of their data (see Appendix C for values)	N (Y if LRB is submitting record for ULN creation)
Notes	String(4000)	Any extra information about the Learner. Please note that only LRS system administrators have the ability to maintain this field within the portal.	N

4.6.5 Data returned

Name	Type	Description
ResponseCode	String	Assuming the operation succeeds, the following response code indicating the outcome of the operation:



		<ul style="list-style-type: none"> WSRC0007 (Batch Learner registration successfully submitted) <p>If the operation fails, then an error response message will be returned instead.</p>
JobID	Int	Job ID

4.7 Get Batch Learner Registration Output

4.7.1 Description

This operation returns the results of a batch registration previously submitted using either the 'Submit Batch Learner Registration' web service operation, or via the LRS Portal.

This method is available on the Learner Service.

4.7.2 Parameters

Name	Type	Description	Mandatory
JobID	Int	Job ID	Y

4.7.3 Data returned

Name	Type	Description
ResponseCode	String	One of the following: <ul style="list-style-type: none"> WSRC0009 (Batch Learner registration successful) WSRC0008 (Batch Learner registration incomplete). WSRC0010 (Batch Learner registration failed) <p>(Note: that the 'successful' outcome denotes that the processing of the file has completed, but this does not necessarily imply the success of each individual registration).</p>
JobStatus	String	One of the following: <ul style="list-style-type: none"> Waiting or In Progress (W)



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		<ul style="list-style-type: none"> Cancelled (C) Success (i.e. job completed) (S)
StartDateTime	String	Start date and time of processing (format YYYY-MM-DD HH:MM:SS). If the job is waiting or has been cancelled, then this will be blank.
EndDateTime	String	End date and time of processing (format YYYY-MM-DD HH:MM:SS) If the job is waiting, in progress or has been cancelled, then this will be blank.
If the batch processing is complete, then the following rows will be returned		
LearnersRegistered	Int	Number of Learners successfully registered
LearnersUpdated	Int	Number of existing Learners already on LRS and updated
PossibleMatches	Int	Number of Learners with possible matches
UnmatchedLearners	Int	Number of Learners that cannot be accurately matched using the Learner information provided
RejectedLearners	Int	Number of Rejected Learners
The following are repeated for each Learner submitted for Batch files submitted via the web service, but not for those submitted via the Portal. For items where the system does not hold any data, the element will not be returned in the response.		
ULN	String	Unique Learner Number
MisIdentifier	String	An internal ID for the record in the external system
Title	String	Title
GivenName	String	Given name
MiddleOtherName	String	Middle other name
FamilyName	String	Family name
PreferredGivenName	String	Preferred given name
PreviousFamilyName	String	Previous family name
FamilyNameAt16	String	Family name at 16
SchoolAtAge16	String	School at age 16
LastKnownAddressLine1	String	Last known address line 1



LastKnownAddressLine2	String	Last known address line 2
LastKnownAddressTown	String	Last known address town
LastKnownAddressCountyOrCity	String	Last known address county or city
LastKnownPostCode	String	Last known postcode
DateOfAddressCapture	String	Date of address capture (format YYYY-MM-DD)
DateOfBirth	String	Date of birth (format YYYY-MM-DD)
PlaceOfBirth	String	Place of birth
EmailAddress	String	Email address
Gender	String	Gender (see Appendix C for values)
Nationality	String	Nationality (see Appendix C for values)
ScottishCandidateNumber	String	Scottish candidate number
VerificationType	String	Type of verification (see Appendix C for values)
OtherVerificationDescription	String	Details of verification
AbilityToShare	String	Whether the Learner has consented to the sharing of their data (see Appendix C for values)
Notes	String	Any extra information about the Learner.
ReturnCode	String	Return Code from the Batch Processing. (See Appendix E for return codes and descriptions) followed by the timestamp of the processing.

4.8 Verify Learner Details

4.8.1 Description

This operation allows the External System to supply up to five fields for a Learner and verify them against the details held in LRS. This is a synchronous operation that performs the same function as 'Submit Verify Learner Details Batch' and 'Get Verify Learner Details Batch Output', but in a single request for one Learner only.

The possible outcomes from this operation are as follows:

Successful Match: This result will occur where each of the incoming parameters matches exactly with those of a Learner held on LRS.



Successful Linked Match: A match was found on the same basis as described for 'Successful Match', but the ULN Register Record identified is that of a Linked Learner (in other words, it has been merged with another Learner which is the Master ULN). The details returned will be those of the Master Learner.

Similar Match: This result will occur where the incoming ULN was found but the associated GivenName and/or FamilyName were similar but were not a successful match.

Note: If the name fields were similar, but the Gender and/or Date of Birth are supplied in the search criteria and either of these do not match, then the outcome will be 'Learner Does Not Match'.

Similar Linked Match: A match was found on the same basis as described for 'Similar Match', but the ULN Register Record identified is that of a Linked Learner (in other words, it has been merged with another Learner which is the Master ULN). The details returned will be those of the Master Learner.

Learner Does Not Match: This result will occur where the incoming ULN was found on the LRS Portal but any or all of the associated fields do not successfully match (WSVRC001 or WSVRC002) or meet the criteria for a similar match (WSVRC003 or WSVRC004).

ULN Not Found: This result will occur where the incoming ULN does not exist on LRS.

Further details of the data returned in each case (including failure codes to denote the reasons for not identifying a match) are provided below.

This method is available on the Learner Service.

4.8.2 Parameters

Name	Type	Description	Mandatory
ULN	String(10)	10-digit Unique Learner Number	Y
GivenName	String(35)	Given Name of the learner to verify	Y
FamilyName	String(35)	Family Name of the learner to verify	Y
Gender	String(1)	Gender of the learner to verify (see Appendix C for values)	N
DateOfBirth	String	Date of Birth (format YYYY-MM-DD and not greater than current system date) of the learner to verify Should comply with Date regular expression defined in Appendix D	N

4.8.3 Data returned



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Name	Type	Description
SearchedULN	String	Incoming Unique Learner Number
SearchedGivenName	String(35)	Incoming Given name of the learner to verify
SearchedFamilyName	String(35)	Incoming Family name of the learner to verify
SearchedGender	String(1)	Incoming Gender of the learner to verify (if provided)
SearchedDateOfBirth	String	Incoming Date of Birth of the learner (if provided)
ResponseCode	String	<p>The outcome of the verification request. This will be one of the following:</p> <ul style="list-style-type: none">• WSVRC001 (Verify Learner Details - Successful Match)• WSVRC002 (Verify Learner Details - Successful Linked Match)• WSVRC003 (Verify Learner Details - Similar Match)• WSVRC004 (Verify Learner Details - Similar Linked Match)• WSVRC005 (Verify Learner Details - Learner Does Not Match)• WSVRC006 (Verify Learner Details – ULN Not Found) <p>(Note that for historic reasons, the actual wording of the WSVRC003 and WSVRC004 responses returned in the response message contain the wording 'Possible Match' and 'Possible Linked Match' respectively. Although the preferred terminology for these outcomes has changed since the initial implementation, the original text has been retained to avoid impacting existing consumers of the web service).</p>
The following additional items returned if the response code is WSVRC001 (Verify Learner Details - Successful Match).		
ULN	String	ULN of the master of the successful match
GivenName	String	Given name of the master of the successful match



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FamilyName	String	Family name of the master of the successful match
DateOfBirth	String	Date of birth of master of the successful match if present in the incoming fields
Gender	String	Gender of master of the successful match if present in the incoming fields (see Appendix C for values)
The following additional items returned if the response code is WSVRC002 (Verify Learner Details - Successful Linked Match).		
ULN	String	ULN of the master of the successful match
GivenName	String	Given name of the master of the successful match
FamilyName	String	Family name of the master of the successful match
DateOfBirth	String	Date of birth of master of the successful match if present in the incoming fields
Gender	String	Gender of master of the successful match if present in the incoming fields (see Appendix C for values)
The following additional items returned if the response code is WSVRC003 (Verify Learner Details - Similar Match).		
ULN	String	ULN of the similar match
GivenName	String	Given name of the similar match
FamilyName	String	Family name of the similar match
DateOfBirth	String	Date of birth of the similar match if present in the incoming fields
Gender	String	Gender of the similar match if present in the incoming fields (see Appendix C for values)
The following additional items returned if the response code is WSVRC004 (Verify Learner Details - Similar Linked Match).		
ULN	String	ULN of the master of the similar match
GivenName	String	Given name of the master of the similar match



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FamilyName	String	Family name of the master of the similar match
DateOfBirth	String	Date of birth of the master of the similar match if present in the incoming fields
Gender	String	Gender of the master of the similar match if present in the incoming fields (see Appendix C for values)
<p>One or more of the following additional items will be returned if the response code is WSVRC005 (Verify Learner Details - Learner Does Not Match). Please see the description below for the error conditions which result in each flag.</p> <p>In the case of VRF 1 to VRF 6, Name Matching is used to compare the name provided with that held within LRS. This utilises a variety of different techniques which aim to measure whether the two values are sufficiently similar to be confident of a match.</p>		
FailureFlag	String	FailureFlag with a value of "VRF1" will be returned if incoming GivenName does not satisfy the name matching criteria against LRS GivenName
FailureFlag	String	FailureFlag with a value of "VRF2" will be returned if incoming GivenName does not satisfy the name matching criteria against LRS FamilyName
FailureFlag	String	FailureFlag with a value of "VRF3" will be returned if incoming GivenName does not satisfy the name matching criteria against LRS PreviousFamilyName
FailureFlag	String	FailureFlag with a value of "VRF4" will be returned if incoming FamilyName does not satisfy the name matching criteria against LRS GivenName
FailureFlag	String	FailureFlag with a value of "VRF5" will be returned if incoming FamilyName does not satisfy the name matching criteria against LRS FamilyName
FailureFlag	String	FailureFlag with a value of "VRF6" will be returned if incoming FamilyName does not satisfy the name matching criteria against LRS PreviousFamilyName
FailureFlag	String	FailureFlag with a value of "VRF7" will be returned if incoming DateOfBirth is provided and does not match LRS DateOfBirth



FailureFlag	String	FailureFlag with a value of "VRF8" will be returned if incoming Gender is provided and does not match LRS Gender
No additional items returned if the response code is WSVRC006 (Verify Learner Details – ULN Not Found).		

4.9 Submit Verify Learner Details Batch

4.9.1 Description

This operation allows the External System to supply up to five fields for a learner and verify them against the details held in the LRS. This operation enables the batch submission of multiple learners for which the results can later be retrieved using the Get Verify Learner Details Batch Output operation.

A Job ID for the batch will be returned to confirm that the batch has been successfully uploaded. If the upload fails then an error message is returned.

This method is available on the Learner Service.

4.9.2 Reference documents

The "How to prepare a Verify batch file document can be found on the LRS Developers TeamSite.

4.9.3 Parameters

Name	Type	Description	Mandatory
LearnerRecordCount	Int	Number of records submitted	Y
OrgEmail	String(254)	Email address of Organisation user to receive notification when job processing is complete	N
The following items are repeated for each learner to be registered (minimum 1 occurrence, maximum 5000 occurrences)			
ULN	String(10)	10-digit Unique Learner Number	Y
MisIdentifier	String(128)	An internal identifier for the record in the client application	N
GivenName	String(35)	Given Name of the learner to verify	Y
FamilyName	String(35)	Family Name of the learner to verify	Y
Gender	String(1)	Gender of the learner to verify (see Appendix C for values)	N



DateOfBirth	String	Date of Birth (format YYYY-MM-DD and not greater than current system date) of the learner to verify Should comply with Date regular expression defined in Appendix D	N
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4.9.4 Data returned

Name	Type	Description
ResponseCode	String	One of the following responses indicating the outcome of the operation: <ul style="list-style-type: none"> WSRC0028 (Batch Learner Verification Successfully Submitted) WSRC0029 (Batch Learner Verification Exceeds Limit) If the whole operation fails, then an error response message will be returned instead.
JobID	Int	Job ID for successful submission of learners.

4.10 Get Verify Learner Details Batch Output

4.10.1 Description

This operation returns the results of a Verify Learner Details Batch previously submitted using either the 'Submit Verify Learner Details Batch' web service operation, or via the Portal.

This method is available on the Learner Service.

4.10.2 Parameters

Name	Type	Description	Mandatory
JobID	Int	Job ID	Y

4.10.3 Data returned

Name	Type	Description
ResponseCode	String	One of the following:



		<ul style="list-style-type: none"> WSRC0025 (Batch Learner Verification Incomplete). WSRC0026 (Batch Learner Verification Completed) WSRC0027 (Batch Learner Verification Failed) WSRC0031 (Batch Learner Verification Unknown Job) <p>(Note: that the 'Completed' outcome denotes that the processing of the file has completed, but this does not necessarily imply the success of each individual verification).</p>
JobStatus	String	<p>One of the following:</p> <ul style="list-style-type: none"> Waiting or In Progress (W) Success (i.e. job completed) (S) Failed (F)
JobStartedDateTime	String	Start date and time of processing (format YYYY-MM-DD HH:MM:SS). If the job is waiting or has been cancelled, then this will be blank.
JobFinishedDateTime	String	End date and time of processing (format YYYY-MM-DD HH:MM:SS) If the job is waiting, in progress or has been cancelled, then this will be blank.
<p>If the batch processing is complete, then the following rows will be returned where the following items are repeated for each Learner submitted in the batch (minimum 1 occurrence, maximum 5000 occurrences)</p>		
MISIdentifier	String (128)	An internal identifier for the record in the client application if present
SearchedULN	String(10)	Incoming Unique Learner Number
SearchedGivenName	String(35)	Incoming Given Name of the learner to verify
SearchedFamilyName	String(35)	Incoming Family Name of the learner to verify
SearchedGender	String(1)	Incoming Gender of the learner to verify if present
SearchedDateOfBirth	String(10)	Incoming Date of Birth of the learner to verify if present
ResponseCode	String	The outcome of the verification request. This will be one of the following (See Appendix F):



		<ul style="list-style-type: none"> • WSVRC001 (Verify Learner Details - Successful Match) • WSVRC002 (Verify Learner Details - Successful Linked Match) • WSVRC003 (Verify Learner Details - Similar Match) • WSVRC004 (Verify Learner Details - Similar Linked Match) • WSVRC005 (Verify Learner Details - Learner Does Not Match) • WSVRC006 : YYYY-MM-DD HH:MM:SS (Verify Learner Details - ULN Not Found)
The following additional items returned if the response code is WSVRC001 (Verify Learner Details - Successful Match).		
ULN	String	ULN of the master of the successful match
GivenName	String	Given name of the master of the successful match
FamilyName	String	Family name of the master of the successful match
DateOfBirth	String	Date of birth of master of the successful match if present in the incoming fields
Gender	String	Gender of master of the successful match if present in the incoming fields (see Appendix C for values)
The following additional items returned if the response code is WSVRC002 (Verify Learner Details - Successful Linked Match)		
ULN	String	ULN of the master of the successful match
GivenName	String	Given name of the master of the successful match
FamilyName	String	Family name of the master of the successful match
DateOfBirth	String	Date of birth of master of the successful match if present in the incoming fields
Gender	String	Gender of master of the successful match if present in the incoming fields (see Appendix C for values)
The following additional items returned if the response code is WSVRC003 (Verify Learner Details - Possible Match).		



ULN	String	ULN of the similar match
GivenName	String	Given name of the similar match
FamilyName	String	Family name of the similar match
DateOfBirth	String	Date of birth of the similar match if present in the incoming fields
Gender	String	Gender of the similar match if present in the incoming fields (see Appendix C for values)
The following additional items returned if the response code is WSVRC004 (Verify Learner Details - Possible Linked Match).		
ULN	String	ULN of the master of the similar match
GivenName	String	Given name of the master of the similar match
FamilyName	String	Family name of the master of the similar match
DateOfBirth	String	Date of birth of the master of the similar match if present in the incoming fields
Gender	String	Gender of the master of the similar match if present in the incoming fields (see Appendix C for values)
One or more of the following additional items will be returned if the response code is WSVRC005 (Verify Learner Details - Learner Does Not Match). Please see the description below for the error conditions which result in each flag.		
FailureFlag	String	FailureFlag with a value of "WSVRF1" will be returned if incoming GivenName does not satisfy the name matching criteria against LRS GivenName
FailureFlag	String	FailureFlag with a value of "WSVRF2" will be returned if incoming GivenName does not satisfy the name matching criteria against LRS FamilyName
FailureFlag	String	FailureFlag with a value of "WSVRF3" will be returned if incoming GivenName does not satisfy the name matching criteria against LRS PreviousFamilyName
FailureFlag	String	FailureFlag with a value of "WSVRF4" will be returned if incoming FamilyName does not satisfy the name matching criteria against LRS GivenName



FailureFlag	String	FailureFlag with a value of “WSVRF5” will be returned if incoming FamilyName does not satisfy the name matching criteria against LRS FamilyName
FailureFlag	String	FailureFlag with a value of “WSVRF6” will be returned if incoming FamilyName does not satisfy the name matching criteria against LRS PreviousFamilyName
FailureFlag	String	FailureFlag with a value of “WSVRF7” will be returned if incoming DateOfBirth is provided and does not match LRS DateOfBirth
FailureFlag	String	FailureFlag with a value of “WSVRF8” will be returned if incoming Gender is provided and does not match LRS Gender
No additional items returned if the response code is WSVRC006 (Verify Learner Details – ULN Not Found).		

4.11 Submit Achievement Batch Job (only for Awarding Organisations)

4.11.1 Description

This operation provides the ability to submit batches of Achievement information via web services. Batches submitted via this web service are placed in a queue for processing.

Achievement information is validated and processed in the same manner regardless of the mechanism used for submission.

The interface is asynchronous. The submitted data will be validated and loaded when the job reaches the head of the processing queue.

- There is a limit of 10,000 achievement records within each request.
- The submission is validated in the following sequence:
 - Validation of the Organisation. We firstly validate that the organisation submitting the web service request is registered with the LRS as an organisation that can submit Awarding Organisation files.
 - Validation to ensure that the request contains between 1 and 10,000 achievement records.
 - Validation of the email address parameter (if provided);
 - Validation of the submission type parameter (if provided).

Further validation of the achievement records submitted in the request is applied when the job is processed and not when the web service submits the job. Therefore a web service submission can successfully create a batch job containing achievement records which will subsequently fail validation. In addition, the whole set of records may be rejected if the created batch fails format checks.

Response from LRS



If the batch job is accepted for processing, a job identifier will be provided to the calling system. The calling system may then request details on the status of this job using the Get Achievement Batch Job web service method (see Section 4.12). For more information on what happens when the batch file is processed – will a record be created, updated, withdrawn or reinstated, please refer to Appendix C - Achievement Batch File Processing Business Rules in the Awarding Organisation User Guide which can be found on the LRS website.

This method is available on the External Service.

4.11.2 Input parameters

Name	Type	Description	Validation	Mandatory
InvokingUser	User			Yes
OrgPassword	String (16)	Fixed-length sixteen-character password used to authenticate the Awarding Organisation in the LRS.	Must correspond with org password registered with LRS.	Yes
OrganisationRef	String (8)	Awarding Organisation's UK Provider Reference Number (UKPRN).	Must correspond with UKPRN registered with LRS.	Yes
UserName	String (35)	Username from the client application	N/A	Yes
EmailAddress	String (254)	Email address to which a notification will be sent once this batch is processed.	Must validate against regular expression defined in Appendix D.	No
SubmissionType	String (11)	Denotes whether this request contains details of Final or Provisional achievements. Defaults to "Final" if not provided.	Must be "Final" (Case Insensitive)	No
The following items are repeated for each achievement to be submitted (minimum 1 occurrence, maximum 10,000 occurrences). These items should appear as array of Achievement objects.				



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MisIdentifier	String (128)	An internal identifier for the achievement in the client application		No
Uln	String (10)	Unique Learner Number		Yes
ProviderUkprn	String (8)	UK Provider Reference Number of the associated Learning Provider.	When supplied must correspond to an existing UKPRN in LRS/LR. Compliant with LRS Common Data Definitions (Provider Identifier (UKPRN))	No
UnitOrQualificationCode	String (10)	Reference Number of the associated existing Unit or Qualification.	Must correspond to an existing Unit or Qualification code regulated by Ofqual	Yes
AchievementAwardDate	Date	Date of Award.	Must be equal to or after 2006-09-01. Must not be in the future. Compliant with LRS Common Data Definitions (Achievement Award Date) ISB BDM Learning Opportunity Award (Achievement_Date)	Yes
Grade	String (60)	Grade awarded.		No
LanguageForAssessment	String (3)	The language of written, spoken or signed content used during assessment.	Must be a valid ISO 639-2 value. (http://www.loc.gov/standards/iso639-2/php/code_list.php). Compliant with LRS Common Data Definitions (Language for Assessment)	No



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GivenName	String (35)	The forename or given name of the associated Learner.	Must be a valid name. Must not contain prohibited text (see Appendix G) Must contain only the characters described in Appendix G) Compliant with ISB Aligned Data Definitions (Person Given Name).	Yes
FamilyName	String (35)	The surname or family name of the associated Learner.	Must be a valid name. Must not contain prohibited text (see Appendix G) Must contain only the characters described in Appendix G). Compliant with ISB Aligned Data Definitions (Person Family Name).	Yes
DateOfBirth	Date	The date of birth of the associated learner	Must be a standard "YYYY-MM-DD" date (please note the format). Learner must be less than 110 years old. Learner must be greater than or equal to 13 years old. Must not be in the future. Compliant with ISB Aligned Data Definitions (Person Birth Date).	No
Gender	Integer	The gender of the associated learner	Must be either: 0 - Unknown; 1 - Male; 2 - Female;	No



			9 - Not determined. Compliant with LRS Common Data Definitions (Person Gender). ISB Aligned Data Definitions (Person Gender Currently).	
LearnerPostcode	String (8)	The postcode of the associated Learner.	We recommend that this field is not supplied. Must be a valid postcode. Must not be a prohibited postcode (see Appendix G) Must not contain prohibited text (see Appendix G). Compliant with LRS Common Data Definitions (Person Address)	No
Action	Int	The action to be performed on the associated Achievement.	Must be either: 1 - Create; 2 - Update; 3 - Withdraw; 4 - Reinstate.	Yes
ActionDate	Date	The date the action was performed on the associated Achievement.	Must not be in the future. Must match Achievement Award Date when action is Create. Compliant with ISB Aligned Data Definitions (Simple Date).	Yes
ActionReason	String (10)	The reason the action was performed on the	Mandatory if action is withdraw.	No



		associated Achievement.	<p>Must correspond to an existing Action Reason within QCF.</p> <p>The current list of valid action reasons for withdrawing an achievement is:</p> <p>ULNINVALID – originally submitted with the wrong ULN</p> <p>ACHINVALID - originally submitted with the wrong unit or qualification reference code</p> <p>DATINVALID – originally submitted with the wrong achievement date</p> <p>SUBINERROR – an individual record was submitted in error</p> <p>BATCHERROR – All records in a batch were wrongly submitted</p> <p>The primary key of the achievement record is the combination of ULN and aim reference code and date of award. Any changes to these data items will require you to withdraw the achievement and resubmit a new achievement record.</p>	
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4.11.3 Data returned

Name	Type	Description
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ResponseCode	String	Assuming the operation succeeds, the following response code indicating the outcome of the operation: <ul style="list-style-type: none">WSRC0042 (Achievement Batch Job successfully submitted) If the operation fails, then an error response message will be returned instead, see Appendix B - for details of possible error codes.
JobID	Int	Job ID

4.12 Get Achievement Batch Job (only for Awarding Organisations)

4.12.1 Description

This operation returns the results of an Achievement Batch Job previously submitted using the Submit Achievement Batch Job web service, or via the Portal.

This method is available on the External Service.

4.12.2 Input Parameters

Name	Type	Description	Mandatory
InvokingUser	User		Yes
OrgPassword	String (16)	Fixed-length sixteen-character password used to authenticate the Awarding Organisation in the LRS.	Yes
OrganisationRef	String (8)	Awarding Organisation's UK Provider Reference Number (UKPRN).	Yes
UserName	String (35)	Username from the client application	Yes
JobID	Int	Identifier of the Achievement Batch Job.	Yes

4.12.3 Data returned

Name	Type
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JobID	Int	Identifier of the Achievement Batch Job.
Status	String	Status of the job. May be 'Waiting', 'In Progress', 'Successful', 'Failed' or 'Cancelled'.
StartDate	DateTime	Date and time processing of this job started. If the Status is Waiting or Cancelled, then this will be blank.
The following items are returned if the Status is Successful or Failed		
EndDate	DateTime	Date and time processing of this job ended.
Duration	String	Time taken to process this job.
SubmittedDate	DateTime	Date and time this job was submitted.
Filename	String (254)	Name of the input file associated with this job.
Type	String (11)	Type of job is 'Final'
Rejection Reason	String (254)	Reason this job was rejected during processing. See Appendix H.2 for the list of the error codes which may be returned here.
User	String (35)	Username of the user who submitted this job for processing
NumberOfRecords	Int	Number of records submitted.
PercentageSuccessfulRecords	Int	Percentage submitted records which were successfully processed
AchievementsCreated	Int	Number of achievements successfully created.
AchievementsUpdated	Int	Number of achievements successfully updated.
AchievementsWithdrawn	Int	Number of achievements successfully withdrawn.



AchievementsReinstated	Int	Number of achievements successfully reinstated.
SuccessfulProvisionalAchievements	Int	Number of achievements successfully processed with a status of Provisional.
SucessfulFinalAchievements	Int	Number of achievements successfully processed with a status of Final.
AchievementsPromotedToFinal	Int	Number of achievements successfully promoted from Provisional to Final.
LearnerDataErrors	Int	Number of errors raised in the batch relating to learner data.
FieldDataErrors	Int	Number of errors raised in the batch relating to achievement field data.
BusinessRuleErrors	Int	Number of errors raised in the batch due to business rule errors.
<p>If this batch was submitted via the Submit Achievement Batch Job web service, the following are repeated for each failed Achievement record submitted as part of this batch. They appear as an array of AchievementError objects.</p>		
MisIdentifier	String (128)	An internal identifier for the achievement in the client application
Uln	String (10)	Unique Learner Number
ProviderUkprn	String (8)	UK Provider Reference Number of the associated Learning Provider.
UnitOrQualificationCode	String (10)	Reference Number of the associated existing Unit or Qualification.
AchievementAwardDate	Date	Date of Award.
Grade	String (60)	Grade awarded.
LanguageForAssessment	String (3)	The language of written, spoken or signed content used during assessment.
GivenName	String (35)	The forename or given name of the associated Learner.



Education & Skills Funding Agency

FamilyName	String (35)	The surname or family name of the associated Learner.
LearnerPostcode	String (8)	The postcode of the associated Learner.
Action	Int	The action to be performed on the associated Achievement.
ActionDate	Date	The date the action was performed on the associated Achievement.
ActionReason	String (10)	The reason the action was performed on the associated Achievement.
MisIdentifier	String (128)	An internal identifier for the achievement in the client application
The following item is repeated for each separate validation error which was raised when processing this Achievement.		
RejectionReasonCode	String	A single error code relating to a validation failure which occurred when processing this Achievement. See Appendix H.2 for the list of the error codes which may be returned here.

If an achievement batch job could not be found with the Job ID provided in the request, the following error is provided:

Name	Type	Description
ResponseCode	String	The following error code (See Appendix A - Response Codes): <ul style="list-style-type: none">WSRC0018 (Unknown Job)



Appendix A – Response Codes

Code	Description
WSRC0001	No match
WSRC0002	Too many matches
WSRC0003	Possible matches
WSRC0004	Exact match
WSRC0005	Learner successfully registered
WSRC0006	Learner successfully updated
WSRC0007	Batch Learner registration successfully submitted
WSRC0008	Batch Learner registration status still 'Waiting'
WSRC0009	Batch Learner registration status 'Successful'
WSRC0010	Batch Learner registration status 'Failed'
WSRC0012	Linked Learner found – no update
WSRC0013	ULN has been updated since you last obtained the details.
WSRC0014	Invalid change of 'Ability to share' status
WSRC0017	Record Count incorrect
WSRC0018	Unknown registration batch job
WSRC0019	ULN not found for update
WSRC0020	No changes detected
WSRC0021	<p>This Response Code may have been caused by one of the following conditions:</p> <ul style="list-style-type: none">• Learner could not be registered as a learner with the same given name, family name, date of birth, gender and last known postcode, already exists in the PORTAL.• Learner could not be updated as a learner with the same given name, family name, date of birth, gender and last known postcode, already exists in the PORTAL, as this would result in a duplicate Learner.• Learner could not be registered as the correct business process has not been followed. First the Learner must be searched for, to establish they do not already have a ULN. Once this has been confirmed, the Learner may be registered for a ULN. (If the Learner is found, the returned ULN should be used. If more than one possible match is found the returned matches must first be checked to ensure the Learner



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	<p>is not amongst them before proceeding to register the Learner for a ULN.).</p> <ul style="list-style-type: none">• Learner could not be registered as the system fails to find the supplied details in the Recent Searches Audit Log table carried out within the Maximum Time.• Learner could not be registered as the Recent search result is a Possible Match but not within the Minimum Time.
WSRC0022	Linked Learner found
WSRC0023	ULNs for Report found
WSRC0024	No ULNs for Report
WSRC0025	Batch Learner Verification Incomplete
WSRC0026	Batch Learner Verification Completed
WSRC0027	Batch Learner Verification Failed
WSRC0028	Batch Learner Verification Successfully Submitted
WSRC0029	Batch Learner Verification Exceeds Limit
WSRC0030	Batch Learner Verification Record Count Incorrect
WSRC0031	Batch Learner Verification Unknown Job
WSRC0033	Exact Match but Learner is unable to share data
WSRC0042	Achievement Batch Job successfully submitted
WSRC0043	The Awarding Organisation on the LRS is not configured to submit achievement batches. Please contact the LRS Service Desk on 0345 602 2589 for assistance.
WSRC0055	Invalid Request – Invalid VendorID
WSRC0056	Invalid Request – Invalid UserType / UserType Not Supplied
WSRC0057	ULN Not Supplied
WSRC0063	Invalid date range
WSRC0088	Invalid Request – Invalid Language
WSRC0093	Given Name not supplied
WSRC0094	Family Name not supplied
WSRC0095	Postcode prohibited
WSRC0096	Date of Birth prohibited
WSRC0097	Invalid Nationality



WSRC0098	Verification type description combination invalid
WSRC0099	Invalid Request – Username not supplied
WSRC0102	Prohibited text violation
WSRC0103	Invalid source data
WSRC0108	Invalid name
WSRC0112	Learner not willing to share
WSRC0113	Invalid Date Of Birth - Invalid Format
WSRC0114	Invalid Date Of Birth - Invalid Date
WSRC0115	Invalid Date Of Birth - Invalid Age
WSRC0119	No Learning Events provided for this Learner
WSRC0200	Invalid find type.
WSRC0201	Linked learner found
WSRC0202	Exact match found
WSRC0222	Returns Multiple Matches



Appendix B – Error Codes

B.1 Error code listing

Code	Description
WSEC0001	Invalid request The request was badly formed (XSD validation error) – this may include missing mandatory parameters, or invalid data types, including invalid or prohibited values in certain fields.
WSEC0002	Unknown request The request refers to an operation which is not supported by the web service.
WSEC0003	Unknown organisation The request contains an Organisation code which is either not recognised by the web service, or not authorised to access the web service functions.
WSEC0004	Out of hours The request was received outside the operational hours of the web service.
WSEC0005	Incorrect Password The Organisation Password is not correct.
WSEC0006	Insufficient Access The Requesting Organisation is not allowed to access the web service.
WSEC0044	The Email address provided in the request is not valid.
WSEC0045	The Submission Type provided in the request is not valid.
WSEC0046	The number of Achievements in the request exceeds the maximum permitted.
WSEC0047	The request must contain at least one Achievement record.
WSEC0133	Supplied Postcode is invalid
WSEC0136	Supplied ULN is invalid
WSEC0137	Invalid Provider UKPRN



Education & Skills Funding Agency

WSEC0146	Unable to Verify Learner.
WSEC0206	Learner has not opted to share data
WSEC0208	Learner could not be verified
WSEC0212	Invalid Get type.
WSEC0999	Unknown exception
or	
WCEC0999	This refers to an error which is the result of an internal system failure within the web service, rather than as a result of a badly formed request or business rule failure.



Appendix C – Reference Data

C.1 Privacy Notice Seen

Code	Description
0	No
1	Yes

C.2 Gender

Code	Description
0	Not Known. The gender of the person has not been recorded.
1	Male
2	Female
9	Not Specified. Unable to be classified as either male or female.

C.3 Nationality

	Codes		Country
00	000	000	Not known
AF	AFG	004	Afghanistan
AX	ALA	248	Aland Islands
AL	ALB	008	Albania
DZ	DZA	012	Algeria
AS	ASM	016	American Samoa
AD	AND	020	Andorra
AO	AGO	024	Angola
AI	AIA	660	Anguilla
AQ	ATA	010	Antarctica
AG	ATG	028	Antigua and Barbuda
AR	ARG	032	Argentina
AM	ARM	051	Armenia
AW	ABW	533	Aruba
AU	AUS	036	Australia
AT	AUT	040	Austria
AZ	AZE	031	Azerbaijan
BS	BHS	044	Bahamas
BH	BHR	048	Bahrain
BD	BGD	050	Bangladesh



Education & Skills Funding Agency

BB	BRB	052	Barbados
BY	BLR	112	Belarus
BE	BEL	056	Belgium
BZ	BLZ	084	Belize
BJ	BEN	204	Benin
BM	BMU	060	Bermuda
BT	BTN	064	Bhutan
BO	BOL	068	Bolivia
BA	BIH	070	Bosnia and Herzegovina
BW	BWA	072	Botswana
BV	BVT	074	Bouvet Island
BR	BRA	076	Brazil
BQ	ATB	???	British Antarctic Territory
IO	IOT	092	British Indian Ocean Territory
BN	BRN	096	Brunei
BG	BGR	100	Bulgaria
BF	BFA	854	Burkina Faso
BU	BUR	104	Burma
BI	BDI	108	Burundi
BY	BYS	112	Byelorussian SSR
KH	KHM	116	Cambodia
CM	CMR	120	Cameroon
CA	CAN	124	Canada
CT	CTE	128	Canton and Enderbury Islands
CV	CPV	132	Cape Verde
KY	CYM	136	Cayman Islands
CF	CAF	140	Central African Republic
TD	TCD	148	Chad
CL	CHL	152	Chile
CN	CHN	156	China
CX	CXR	162	Christmas Island
CC	CCK	166	Cocos (Keeling) Islands
CO	COL	170	Colombia
KM	COM	174	Comoros
CG	COG	178	Congo
CD	COD	180	Congo Democratic Republic
CK	COK	184	Cook Islands
CR	CRI	188	Costa Rica
HR	HRV	191	Croatia
CU	CUB	192	Cuba,
CY	CYP	196	Cyprus
CZ	CZE	203	Czech Republic
CS	CSK	200	Czechoslovakia
DY	DHY	204	Dahomey
YD	YMD	720	Democratic Yemen
DK	DNK	208	Denmark
DJ	DJI	262	Djibouti
DM	DMA	212	Dominica
DO	DOM	214	Dominican Republic
NQ	ATN	216	Dronning Maud Land



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TP	TMP	626	East Timor
EC	ECU	218	Ecuador
EG	EGY	818	Egypt
SV	SLV	222	El Salvador
GQ	GNQ	226	Equatorial Guinea
ER	ERI	232	Eritrea
EE	EST	233	Estonia
ET	ETH	231	Ethiopia
ET	ETH	230	Ethiopia
FK	FLK	238	Falkland Islands
FO	FRO	234	Faroe Islands
DE	DEU	280	Federal Republic of Germany
FJ	FJI	242	Fiji
FI	FIN	246	Finland
FI	FIN	246	Finland
FR	FRA	250	France
GF	GUF	254	French Guiana
PF	PYF	258	French Polynesia
TF	ATF	260	French Southern Territories
AI	AFI	262	French Territory of Afars and Issas
GA	GAB	266	Gabon
GM	GMB	270	Gambia The
GE	GEO	268	Georgia
DD	DDR	278	German Democratic Republic
DE	DEU	276	Germany
GH	GHA	288	Ghana
GI	GIB	292	Gibraltar
GE	GEL	???	Gilbert and Ellice Islands
GE	GEL	296	Gilbert Islands
GR	GRC	300	Greece
GL	GRL	304	Greenland
GD	GRD	308	Grenada
GP	GLP	312	Guadeloupe
GU	GUM	316	Guam
GT	GTM	320	Guatemala
GG	GGY	831	Guernsey
GN	GIN	324	Guinea
GW	GNB	624	Guinea-Bissau
GY	GUY	328	Guyana
HT	HTI	332	Haiti
HM	HMD	334	Heard Island and McDonald Islands
VA	VAT	336	Holy See
HN	HND	340	Honduras
HK	HKG	344	Hong Kong
HU	HUN	348	Hungary
IS	ISL	352	Iceland
IN	IND	356	India
ID	IDN	360	Indonesia
IR	IRN	364	Iran
IQ	IRQ	368	Iraq



Education & Skills Funding Agency

IE	IRL	372	Ireland
IM	IMN	833	Isle of Man
IL	ISR	376	Israel
IT	ITA	380	Italy
CI	CIV	384	Ivory Coast
JM	JAM	388	Jamaica
JP	JPN	392	Japan
JE	JEY	832	Jersey
JT	JTN	396	Johnston Atoll
JO	JOR	400	Jordan
KH	KHM	116	Kampuchea
KZ	KAZ	398	Kazakhstan
KE	KEN	404	Kenya
KI	KIR	296	Kiribati
KP	PRK	408	Korea North
KR	KOR	410	Korea South
KW	KWT	414	Kuwait
KG	KGZ	417	Kyrgyzstan
LA	LAO	418	Laos
LV	LVA	428	Latvia
LB	LBN	422	Lebanon
LS	LSO	426	Lesotho
LR	LBR	430	Liberia
LY	LBY	434	Libya
LI	LIE	438	Liechtenstein
LT	LTU	440	Lithuania
LU	LUX	442	Luxembourg
MO	MAC	446	Macao
MK	MKD	807	Macedonia
MG	MDG	450	Madagascar
MW	MWI	454	Malawi
MY	MYS	458	Malaysia
MV	MDV	462	Maldives
ML	MLI	466	Mali
MT	MLT	470	Malta
MH	MHL	584	Marshall Islands
MQ	MTQ	474	Martinique
MR	MRT	478	Mauritania
MU	MUS	480	Mauritius
YT	MYT	175	Mayotte
MX	MEX	484	Mexico
FM	FSM	583	Micronesia
MI	MID	488	Midway Islands
MD	MDA	498	Moldova
MC	MCO	492	Monaco
MN	MNG	496	Mongolia
ME	MNE	499	Montenegro
MS	MSR	500	Montserrat
MA	MAR	504	Morocco
MZ	MOZ	508	Mozambique



Education & Skills Funding Agency

MM	MMR	104	Myanmar
NA	NAM	516	Namibia
NR	NRU	520	Nauru
NP	NPL	524	Nepal
NL	NLD	528	Netherlands
AN	ANT	530	Netherlands Antilles
AN	ANT	532	Netherlands Antilles
NC	NCL	540	New Caledonia
NH	NHB	548	New Hebrides
NZ	NZL	554	New Zealand
NI	NIC	558	Nicaragua
NE	NER	562	Niger
NG	NGA	566	Nigeria
NU	NIU	570	Niue
NF	NFK	574	Norfolk Island
MP	MNP	580	Northern Mariana Islands
NO	NOR	578	Norway
OM	OMN	512	Oman
PK	PAK	586	Pakistan
PW	PLW	585	Palau
PS	PSE	275	Palestine
PA	PAN	591	Panama
PZ	PCZ	???	Panama Canal Zone
PG	PNG	598	Papua New Guinea
PY	PRY	600	Paraguay
PE	PER	604	Peru
PH	PHL	608	Philippines
PN	PCN	612	Pitcairn
PL	POL	616	Poland
PT	PRT	620	Portugal
PR	PRI	630	Puerto Rico
QA	QAT	634	Qatar
RE	REU	638	Reunion
RO	ROU	642	Romania
RU	RUS	643	Russia
RW	RWA	646	Rwanda
SH	SHN	654	Saint Helena
KN	KNA	659	Saint Kitts and Nevis
KN	KNA	658	Saint Kitts-Nevis-Anguilla
LC	LCA	662	Saint Lucia
PM	SPM	666	Saint Pierre and Miquelon
VC	VCT	670	Saint Vincent and the Grenadines
WS	WSM	882	Samoa
SM	SMR	674	San Marino
ST	STP	678	Sao Tome and Principe
SA	SAU	682	Saudi Arabia
SN	SEN	686	Senegal
RS	SRB	688	Serbia
CS	SCG	891	Serbia and Montenegro
SC	SYC	690	Seychelles



Education & Skills Funding Agency

SL	SLE	694	Sierra Leone
SK	SKM	???	Sikkim
SG	SGP	702	Singapore
SK	SVK	703	Slovakia
SI	SVN	705	Slovenia
SB	SLB	090	Solomon Islands
SO	SOM	706	Somalia
ZA	ZAF	710	South Africa
GS	SGS	239	South Georgia
VD	VDR	???	South Vietnam
RH	RHO	716	Southern Rhodesia
ES	ESP	724	Spain
EH	ESH	732	Spanish Sahara
LK	LKA	144	Sri Lanka
SD	SDN	736	Sudan
SR	SUR	740	Suriname
SJ	SJM	744	Svalbard and Jan Mayen
SZ	SWZ	748	Swaziland
SE	SWE	752	Sweden
CH	CHE	756	Switzerland
SY	SYR	760	Syria
TW	TWN	158	Taiwan
TJ	TJK	762	Tajikistan
TZ	TZA	834	Tanzania
TH	THA	764	Thailand
TL	TLS	626	Timor-Leste
TG	TGO	768	Togo
TK	TKL	772	Tokelau
TO	TON	776	Tonga
TT	TTO	780	Trinidad and Tobago
PC	PCI	582	Trust Territory of the Pacific Islands
TN	TUN	788	Tunisia
TR	TUR	792	Turkey
TM	TKM	795	Turkmenistan
TC	TCA	796	Turks and Caicos Islands
TV	TUV	798	Tuvalu
UG	UGA	800	Uganda
UA	UKR	804	Ukraine
UA	UKR	804	Ukrainian SSR
SU	SUN	810	Union of Soviet Socialist Republics
AE	ARE	784	United Arab Emirates
GB	GBR	826	United Kingdom
US	USA	840	United States
UM	UMI	581	United States Minor Outlying Islands
PU	PUS	849	United States Miscellaneous Pacific Islands
HV	HVO	854	Upper Volta
UY	URY	858	Uruguay
UZ	UZB	860	Uzbekistan
VU	VUT	548	Vanuatu
VA	VAT	336	Vatican City State



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VE	VEN	862	Venezuela
VN	VNM	704	Vietnam
VG	VGB	092	Virgin Islands British
VI	VIR	850	Virgin Islands U.S
WK	WAK	872	Wake Island
WF	WLF	876	Wallis and Futuna
EH	ESH	732	Western Sahara
YE	YEM	887	Yemen
YE	YEM	886	Yemen
YU	YUG	891	Yugoslavia
ZR	ZAR	180	Zaire
ZM	ZMB	894	Zambia
ZW	ZWE	716	Zimbabwe

C.4 Verification type

Note that the following validation is applied to 'Verification Type' and 'Verification Other Description' fields:

- If Verification Type is 999 ('other') then a value must be provided for 'Verification Other Description'.
- If Verification Type is not 999, then 'Verification Other Description' must be blank.

Code	Description
0	None provided
1	Relationship with school
2	Passport
3	Driving licence
4	ID Card or other form of national identification
5	National Insurance Card
6	Certificate of Entitlement to Funding
7	Bank/Credit/Debit Card
999	Other

C.5 Learner status



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Code	Description
1	Active
2	Linked
3	Deleted



Appendix D – Regular Expressions for Validation

D.1 Date regular expression

This expression will accept the century leap years, for example, 1900-02-29 or 1800-02-29 but the LRS Portal code will handle this and reject the date as invalid:

```
^(((18|19|20)[0-9]{2})-(((01|03|05|07|08|10|12)-(0[1-9]||1-2)[0-9]|3[0-1]))|((04|06|09|11)-(0[1-9]||1-2)[0-9]|30))|(02-(0[1-9]|1[0-9]|2[0-8])))|(((18|19|20)([02468][048][13579][26]))-02-29)$
```

D.2 Postcode regular expression

The postcode validation is based on BS7666. The postcode validation implementation is not case sensitive. The validation is implemented by evaluating the postcode string against the following regular expressions.

```
^[A-Z]{1,2}[0-9R][0-9A-Z]? ?[0-9][ABDEFGHJLNPQRSTUWXYZ]{2}$
```

and

```
^BFPO ?[0-9]{1,4}$
```

and

```
^[AC-FHKNPRTV-Y]\d{2}|D6W)? ?[0-9AC-FHKNPRTV-Y]{4}$
```

Post code must satisfy either of these regular expressions.

D.3 Email regular expression

Email Addresses must satisfy the following regular expression and should not be more than 254 characters in length.

```
^[A-Za-z0-9._%+-]{1,64}@(?:[A-Za-z0-9]{1,63}\.|[A-Za-z0-9]+(?:-[A-Za-z0-9]+)*\.)?{1,8}[A-Za-z]{2,63}$
```



Appendix E – LRB Batch Processing Return Codes

Code	Description	Information or Exception
RC001	Linked Master ULN returned	Information
RC002	ULN Confirmed and Updated	Information
RC003	ULN Confirmed	Information
RC004	No Match - New ULN Created Note: newly created ULN is returned in the ULN data column	Information
RC005	No Match - No ULN Created	Information
RC006	Insufficient Data	Exception
RC007	Possible Match	Exception
RC008	Too Many Matches	Exception
RC009	No ULN Match - Serious Error	Exception
RC010	Null Values	Exception
RC011	Incorrect Format	Exception

The following is a detailed description of the result codes in the order that they are processed. For brevity, the following terms are used:

- <ULNIdentifying fields> are the set of fields {ULN, GivenName, FamilyName} and allow a ULN search to be performed for the Learner
- <DemographicIdentifying fields> are the set of fields {GivenName, FamilyName, Gender, Date of Birth, Postcode} and allow a Demographic search to be performed for the Learner.

Error Code	Description	Notes
RC001	Linked Master ULN	<p>Full Submission (FUL): When <ULNIdentifying fields> or <DemographicIdentifying fields> identify exactly one Learner, but that Learner has a Master associated with it.</p> <p>Verification only (CHK): as above.</p> <p>Note: Returned ULN and all other details are those of the "Master" Learner.</p>



		No update to the record held in the LRS Organisation Portal takes place. If the LRB wishes to perform updates to this Learner, they must resubmit the details using the Master ULN.
RC002	ULN Confirmed & Updated	<p>Full Submission (FUL): When <ULNIdentifying fields> identify exactly one Learner and the incoming record has updated information on the identified Learner. Please note:</p> <ul style="list-style-type: none">• Regardless of whether Verification Type is supplied, all the non-demographic fields (excluding Verification Type and Verification Other Description) can be updated. <p>Note. If the Learner has previously set the Ability to Share themselves, Ability to Share will not be updated.</p> <ul style="list-style-type: none">• If the supplied Verification Type is anything other than None Provided, any of the five demographic fields (Given Name, Family Name, Postcode, Date of Birth and Gender) may be updated. The updated Learner details must not represent a potential duplicate of another Learner already held in the LRS Organisation Portal.• The Nationality code can be supplied in any of three formats. However, with effect from June 2021, the Learning Records Service no longer collects or return values for nationality, although it remains a necessary field in the web services call. Therefore, any values sent will be blanked before processing and blanks will be returned.• Updates to any of the address fields held by the LRS Organisation Portal will only occur when:<ul style="list-style-type: none">○ a Postcode is supplied which is different to that held in the LRS Organisation Portal or the Postcode supplied is the same as that held in the LRS Organisation Portal;○ and at least one of the four address line fields supplied is not blank. In either case the LRS Organisation Portal held Postcode and 4 address line fields are all set to the supplied values.○ The Address fields in full are: Last Known Address Line 1 Last Known Address Line 2 Last Known Address Town Last Known Address County or City Last Known Postcode• When the address is updated, the 'Date of Address Capture' field will be updated with the value supplied in the batch file (if this is not supplied then the current system date will be used to populate this field).• The 'Verification Type' and 'Verification Other Description' fields will be updated if supplied in the batch file, even where values are already held by the LRS Organisation Portal. These two fields will be updated as a group rather than individually (if either



		<p>of the fields is updated, then the other will also be updated at the same time).</p> <p>The following validation rules apply to these two fields:</p> <ol style="list-style-type: none">1. Verification Type must be one of the values recognized by the system.2. If Verification Type is Other, Other Verification Description must be populated.3. If Verification Type is not Other, Other Verification Description must be blank. <p>Verification only (CHK): N/A</p>
RC003	ULN Confirmed	<p>Full Submission (FUL): When <ULNIdentifying fields> or <DemographicIdentifying fields> identify exactly one Learner and the incoming record does not have any more information than that of the identified Learner.</p> <ul style="list-style-type: none">• Updates to any of the address fields held by the LRS Organisation Portal may occur when:<ul style="list-style-type: none">○ a Postcode is supplied which is different to that held in the LRS Organisation Portal or the Postcode supplied is the same as that held in the LRS Organisation Portal;○ and at least one of the four address line fields supplied is not blank. In either case the LRS Organisation Portal held Postcode and 4 address line fields are all set to the supplied values.○ The Address fields in full are: Last Known Address Line 1 Last Known Address Line 2 Last Known Address Town Last Known Address County or City Last Known Postcode• When the address is updated, the 'Date of Address Capture' field will be updated with the value supplied in the batch file (if this is not supplied then the current system date will be used to populate this field). <p>Verification only (CHK): When <ULNIdentifying fields> or <DemographicIdentifying fields> identify exactly one Learner and even if the incoming record has more information than that of the identified Learner, the Learner is not updated.</p>
RC004	No Match – New ULN Created	<p>Full Submission (FUL): <DemographicIdentifying fields> identify no Learners.</p> <p>Verification only (CHK): N/A</p> <p>Note: New ULN Register record is created if there is minimum required information available to create.</p>



RC005	No Match – No ULN Created	Full Submission (FUL): N/A Verification only (CHK): <DemographicIdentifying fields> identify no Learners.
RC006	Insufficient data to create new ULN	Full Submission (FUL): When an existing Learner has not been found, and the incoming record does not contain the minimum required values to create a new ULN Register Record. The search will have been carried out successfully but Verification Type and/or Ability to Share is missing. Verification only (CHK): N/A Note: Minimum Required values to create a Learner are: <ul style="list-style-type: none">• Family Name• Given Name• Gender• Date of Birth• Postcode• Verification Type - if Verification Type is set to indicate “Other”, then Other Verification Description is also required• Ability to Share
RC007	Possible match	Full Submission (FUL): When <DemographicIdentifying fields> identifies 1 to 10 learners but none of the matches are strong enough to guarantee an exact match. Verification only (CHK): Same as the Full submission
RC008	Too Many Matches	Full Submission (FUL): When <DemographicIdentifying fields> identifies more than 10 Learners. Verification only (CHK): Same as the Full submission
RC009	No ULN Match - Serious Error	Full Submission (FUL): When <ULNIdentifying fields> are present but do not identify a Learner Verification only (CHK): Same as Full submission
RC010	Null Values	Full Submission (FUL): When ULN is not present and one or more fields <DemographicIdentifying fields> (Other than GivenName and FamilyName) are null. Verification only (CHK): Same as Full Submission Note: Indicates that there is not enough data to use <ULNIdentifying fields> or < DemographicIdentifying fields> to identify learners.
RC011	Incorrect Format	Full Submission (FUL): When incoming record does not comply with common data definition or any of the Mandatory fields (GivenName and FamilyName) is missing.



OR

If either of the Given Name or Family Name fields contain an invalid name (see Appendix F.2 for further details).

OR

If prohibited text has been entered into any of the following fields: Title, Given Name, Preferred Given Name, Middle Other Name, Family Name, Previous Family Name, Family Name At 16, School at Age 16, Last Known Address Line 1, Last Known Address Line 2, Last Known Address Town, Last Known Address County or City, Last Known Postcode, Place of Birth, Email Address, Gender, Scottish Candidate Number, Other Verification Description, Notes

OR

If a Learner is found and the incoming details supplied will lead to an update of the Verification Type, but VerificationType and OtherVerificationDescription do not comply with the validation rule mentioned in validation table at 3.3 Upload file format

OR

If the incoming record has a DateOfBirth value which would mean that the Learner is less than 11 years old or more than 110 years old

OR

If the incoming record is trying to update the Ability to Share where the Learner has previously set the Ability to Share themselves or revert the value back to "FPN Not Seen" when it has previously been one of the "FPN Seen..." values.

OR

If updates to the five demographic fields would result in a potential duplicate of an existing Learner, where the supplied five demographic fields exactly match those of another Learner held.

Verification only (CHK): When incoming record does not comply with common data definition or any of the Mandatory fields (GivenName and FamilyName) is missing.

Note: Common Data Definition checking validates the length and valid values of the incoming records. If this validation is failed no further action is taken and the error is written in the output file as an RC011.



Appendix F – VLD Batch Processing Return Codes

F.1 Return codes

Code	Description
WSVRC001	Verify Learner Details - Successful Match
WSVRC002	Verify Learner Details - Successful Linked Match
WSVRC003	Verify Learner Details - Similar Match
WSVRC004	Verify Learner Details - Similar Linked Match
WSVRC005	Verify Learner Details - Learner Does Not Match
WSVRC006	Verify Learner Details – ULN Not Found

As part of the improvements being applied to the matching algorithm used in the Verify Learner transaction in Release 8, the LRS is introducing the term “Successful Match” to replace the term “Exact Match” where a learner is successfully identified using the verify Learner transaction. This change in terminology is being introduced as it more accurately represents the results being returned to users of the service; for example instances where the details supplied to the service have resulted in the same learner being successfully identified on the LRS system. This change does not require any changes to the Interface Specification being used by organisations using the Verify Learner transaction, as it has been handled in the Specification by the addition of explanatory notes to this effect, nor have the Response Codes changed

The actual wording of the response codes WSVRC001 and WSVRC002 have been updated with the words ‘Successful’ as the preferred terminology for these outcomes. However, the original text ‘Exact’ will still be returned in the message to avoid impacting existing consumers of the web service.

F.2 Failure flags

In the case of VRF 1 to VRF 6, Name Matching is used to compare the name provided with that held within LRS. This utilises a variety of different techniques which aim to measure whether the two values are sufficiently similar to be confident of a match.

Code	Description
VRF1	IN.Given Name <> LRS.Given Name If incoming GivenName does not satisfy the name matching criteria against LRS GivenName
VRF2	IN.Given Name <> LRS.Family Name If incoming GivenName does not satisfy the name matching criteria against LRS FamilyName



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VRF3	IN.Given Name <> LRS.Previous Family Name If incoming GivenName does not satisfy the name matching criteria against LRS PreviousFamilyName
VRF4	IN.Family Name <> LRS.Given Name If incoming FamilyName does not satisfy the name matching criteria against LRS GivenName
VRF5	IN.Family Name <> LRS.Family Name If incoming FamilyName does not satisfy the name matching criteria against LRS FamilyName
VRF6	IN.Family Name <> LRS.Previous Family Name If incoming FamilyName does not satisfy the name matching criteria against LRS PreviousFamilyName
VRF7	IN.Date of Birth <> LRS.Date of Birth If incoming DateOfBirth does not match LRS DateOfBirth
VRF8	IN.Gender <> LRS.Gender If incoming Gender does not match LRS Gender



Appendix G – Restrictions on Learner Data

The following restrictions apply during the registration and updating of Learners and must be used in conjunction with the Data Quality Guidance documentation:

G.1 Valid date of birth

The age of the Learner as derived from the Date of Birth provided must fall within parameters defined within the LRS Portal. These are currently as follows:

- Minimum age = 11 (In line with ICO recommendations, ULNs are generated for rising 13s, but to allow for learners who take general qualification examinations at an earlier age (gifted and talented learners) the parameter is set to 11)
- Maximum age = 110

If the age of the Learner falls outside these parameters, then RC011 - Incorrect Format will be returned.

G.2 Valid names

Valid names must always contain at least one upper case character (A-Z) or one lower case character (a-z). The following characters are permissible in a Valid Name:

- space
- the upper case characters A-Z
- the lower case characters a-z
- ' (normal apostrophe)
- ` (backwards apostrophe)
- - (hyphen)
- . (dot)

The name must not contain (in upper or lower case):

- '<space>KNOWN<space>'
- '<space>KNOWNAS<space>'
- '<space>KNOWN<space>AS<space>'
- '<space>AKA<space>'
- '<space>KA<space>'
- '<space>K<space>AS<space>'
- '<space>KWN AS<space>'
- '<space>A<space>K<space>A<space>'
- '<space>K<space>A<space>'
- '<space>KN<space>AS<space>'
- '<space>WAS<space>'
- '<space>USED<space>'
- '<space>PREVIOUSLY<space>'
- '<space>PREV<space>'
- '<space>PRE<space>'
- '<space>THEN<space>'
- '<space>FORMERLEY<space>'
- '<space>FORMERLY<space>'
- '<space>PREFERRED<space>'



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- '<space>NEE<space>'
- '<space>VEL<space>'
- '<space>CHANGE<space>'
- '<space>LEGAL<space>'
- '<space>BIRTH<space>'
- '<space>CONTACT<space>'
- '<space>PRONOUNCE<space>'
- '<space>PRONOUNCED<space>'
- '<space>OR<space>'
- '<space>DUPLICATE<space>'
- '<space>DO NOT<space>'
- 'UNKNOWN'
- 'NOT<space>KNOWN'
- 'NOTKNOWN'
- 'DO<space>NOT<space>USE'
- 'DUPLICATE'

No text other than the Name itself (such as text relating to the status of the Name) should be included as part of the Name

This restriction is applied to the Given Name, Preferred Given Name, Middle Other Name, Family Name, Previous Family Name and Family Name at 16 fields.

WSEC0001 - Invalid Request for Register and Update, RC011 - Incorrect Format for Registration Batch and VRC000 - Invalid Format for Verification Batch are used to indicate that this prohibition has been violated.

G.3 Prohibited postcodes

Postcodes distinctly associated with prisons and offender institutions will be rejected during registration or updating.

This restriction is applied to the Postcode field.

WSEC0001 - Invalid Request for Register and Update, RC011 - Incorrect Format for Registration Batch and VRC000 - Invalid Format for Verification Batch are used to indicate that this prohibition has been violated.

G.4 Prohibited text

The LRS restricts the use of inappropriate words or phrases during registration and updating of Learner details to prevent entry of data which may subsequently cause the Learner to be discriminated against. Active back-end analysis is undertaken and active steps are taken to prevent the entry of and correct inappropriate or discriminatory data.

This restriction is applied to the Grade, Title, Given Name, Preferred Given Name, Middle Other Name, Family Name, Previous Family Name, Family Name at 16, School at Age 16, Last Known Address 1, Last Known Address 2, Last Known Town, Last Known County or City, Place of Birth, Email Address, Scottish Candidate Number, Other Verification Description and Notes fields.

WSEC0001 - Invalid Request for Register and Update, RC011 - Incorrect Format for Registration Batch and VRC000 - Invalid Format for Verification Batch are used to indicate that this prohibition has been violated.



Appendix H – Achievement Batch Processing Error Codes

H.1 Batch rejection reasons

When using the Submit Achievement Batch Job web service (see Section 4.11), a number of checks are applied to the initial Achievement Batch Job submission request. Errors raised at this stage will result in a web service error return code being returned to the caller. See Appendix B - for details.

During later processing of an accepted Achievement Batch Job, a batch may still be rejected by the LRS. The table below provides a comprehensive list of the Rejection Reason codes that may be returned along with an explanation as to the cause:

Code	Cause	
RS001	XML has not validated against the Schema	<p>Check your file contains the XML declaration, for example:</p> <pre>e.g. <?xml version="1.0" encoding="UTF-8" ?></pre> <pre><RegistrationFile xmlns:xsi="http://www.w3.org/2001/XMLSchema- instance" xsi:noNamespaceSchemaLocation="file:///lrb.xsd"></pre> <p>The XML declaration should comply with above format and the version and encoding must also be present. Any deviation from this format will cause the validation to fail.</p> <p>Check that maximum fields lengths have not been exceeded, or invalid dates have been submitted, e.g. 32nd of the month as well as all ULNs being complete and that there are no missing ULNs.</p>
RS003	Invalid NumberOfRecords.	<p>Check the figure in the Number of Records field matches the actual number of records included in your file.</p>
RS005	Too many Achievement Records have been rejected according to the threshold set by LRS	<p>Your file failed the threshold. See Section 4.13.1 for more information.</p>
RS007	An unexpected error occurred while processing this achievement batch.	<p>Unfortunately, an unexpected error occurred whilst processing your file. Check that you have not submitted the same file twice at the same time (this means two files with exactly the same learner and qualification details). If not, please re-submit it.</p>



H.2 Achievement record (field level) rejection reasons

Validation at field level occurs in the order specified below:

Error	Description	What to do
R001	Field validation failed on 'Unique Learner Number (ULN)' Achievement Record field.	Check the ULN is 10 digits long.
R002	Field validation failed on 'Provider UKPRN' Achievement Record field.	Check the UKPRN in the filename for errors.
R003	Field validation failed on 'MISIdentifier' Achievement Record field.	Check the field length. It should be no longer than 28 characters.
R004	Field validation failed on 'Unit or Qualification Reference Number (QAN)' Achievement Record field.	Check the unit or qualification code is valid as per the OFQUAL Regulatory IT System (RITS) database or other provider of aims data supplied to the LRS.
R005	Field validation failed on 'AchievementAwardDate' Achievement Record field.	<p>Check the Award date is not before 01/09/2006 and that is the exactly the same date as the Action Date (they must match).</p> <p>Check aim end date has not expired. A valid date must either match or be before the certification end date as shown on the Ofqual database or the database of the supplier of the aim information.</p>
R006	Field validation failed on 'Grade' Achievement Record field.	Check the grade does not contain any prohibited text – see Appendix A
R007	Field validation failed on 'Language for Assessment' Achievement Record field.	Check the code is 3 characters and that it matches the code on the Library of Congress website - http://www.loc.gov/standards/iso639-2/php/code_list.php
R008	Field validation failed on 'Given name' Achievement Record field.	Check it is a valid name and does not contain any prohibited text – see Appendix A.
R009	Field validation failed on 'Family name' Achievement Record field.	Check it is a valid name and does not contain any prohibited text – see Appendix A.
R010	Field validation failed on 'Learner Postcode' Achievement Record field.	Check the postcode conforms to the validation rules – see Appendix A.



		As detailed in the section 4.13.2, we recommend that this field is not submitted.
R011	Field validation failed on 'Date of Birth' Achievement Record field.	Check the Date of birth is correct for this learner and that it conforms to the validation rules – see Appendix A.
R012	Field validation failed on 'Gender' Achievement Record field.	Check the submitted code is valid – see the table in Section 3.
R013	Field validation failed on 'Action' Achievement Record field.	Check the submitted code is valid – see the table in Section 3.
R014	Field validation failed on Action Date' Achievement Record field.	Check the Action date is exactly the same as the Achievement Award Date.
R015	Field validation failed on 'Action Reason' Achievement Record field.	Check the submitted text is valid – see the table in Section 3.
R016	Unable to create achievement as it already exists.	The achievement has already been uploaded to this learner. Check the aim code is correct.
R017	Unable to update achievement as it does not exist.	The achievement does not exist. Check the aim code/ ULN/ award date is correct.
R018	Unable to withdraw achievement as it does not exist.	The achievement does not exist. Check the aim code / ULN / award date is correct.
R019	Unable to reinstate achievement as it does not exist.	The achievement does not exist. Check the unit or qualification code is correct.
R020	Unable to update achievement as it has been previously withdrawn.	The achievement has been withdrawn. Check the learner and qualification/unit details are correct.
R021	Unable to withdraw achievement as it has been previously withdrawn.	The achievement has been withdrawn. Check the learner and qualification/unit details are correct.
R022	Unable to reinstate achievement as it has not been previously withdrawn.	The achievement has not been withdrawn. Check the learner and qualification/unit details are correct.
R026	The learner could not be verified (exact match, exact linked match, possible match nor possible linked match) on the LRS.	Check the ULN, Given name and Family name, Date of Birth and Gender are correct.