



# Web Services Australian Immunisation Register (AIR)

## AIR Common Rules

TECH.SIS.AIR.01

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Australian Immunisation Register Web Services	
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## Document Change Control

Date of Issue	Brief Description of Change
10 October 2019	Implementation of Web Services – Version 1.0.0
1 November 2019	Version 1.0.1 Service summary- additional requirements updated Formatting updates
20 April 2020	Version 2.0.0 Major update – <ul style="list-style-type: none"> <li>Updated all email addresses and departmental references to Services Australia (the agency)</li> <li>Section 5.9 Addition of reference to the AIR Vaccine Codes Formats User Guide and the Health Systems Developer Portal (the portal) throughout the document</li> </ul>
17 August 2020	Version 2.0.1 <ul style="list-style-type: none"> <li>Updates to Definitions, Acronyms and Abbreviations</li> <li>OTS Liaison contact details updated</li> <li><b>Section 5</b> – AIR Web Service Common Processing <ul style="list-style-type: none"> <li>5.3 - Inbound service Virtual Request Headers</li> <li>5.13 - Date Format</li> </ul> </li> <li><b>Section 6</b> – Appendix 6 <ul style="list-style-type: none"> <li>6.4 - Ancillary Provider Number Validation</li> </ul> </li> </ul>
11 December 2020	Version 3.0.0 Major update – <ul style="list-style-type: none"> <li>Replaced term ‘ancillary’ provider number with ‘AIR’ provider number’</li> <li>Updates to Definitions, Acronyms and Abbreviations</li> <li>Additional associated documents</li> <li><b>Section 3</b> – Preconditions update</li> <li><b>Section 5</b> – AIR Web Service – Common Processing <ul style="list-style-type: none"> <li>5.7 – Inbound Service Properties updates</li> <li>5.8 – Provider Checks (ProviderIdentifierType)</li> <li>5.9 – Vaccines used for AIR Notifications</li> <li>5.10 – Medical Contraindication Type</li> <li>5.11 – Medical Contraindication Reason</li> <li>5.13 – Individual Identifier Type</li> <li>5.16 – Common Response Type</li> </ul> </li> <li><b>Section 6</b> – Appendix A <ul style="list-style-type: none"> <li>6.2 - Provider Number Validation</li> <li>6.4 – AIR Provider Number Validation</li> </ul> </li> </ul>
29 April 2021	Version 3.0.1 Minor update – 25 February 2021 systems release: <ul style="list-style-type: none"> <li><b>Section 5.8</b> – Provider Checks (ProviderIdentifierType)</li> </ul>

Date of Issue	Brief Description of Change
	<ul style="list-style-type: none"> <li>○ New validation error message AIR-E-1016 for HPI-I and HPI-O.</li> </ul> <p>27 March 2021 systems release:</p> <ul style="list-style-type: none"> <li>• <b>Section 5.15</b> – System Error Handling <ul style="list-style-type: none"> <li>○ Amended message text for AIR-E-1006 to ensure less than 255 character length.</li> <li>○ New error-identifier for AIR-E-1006 in the error 'field' property</li> </ul> </li> <li>• <b>Section 5.20</b> – Business Error Message Validation (ErrorMessageType) <ul style="list-style-type: none"> <li>○ Description for new error-identifier for AIR-E-1006.</li> </ul> </li> </ul> <p>Document updates only to provide clarity/further information:</p> <ul style="list-style-type: none"> <li>• <b>Section 5.3</b> – Inbound Service – Virtual Request Headers <ul style="list-style-type: none"> <li>○ Added reference to new Appendix C for HTTP Headers.</li> </ul> </li> <li>• <b>Section 5.7</b> – Inbound Service Properties <ul style="list-style-type: none"> <li>○ Corrected path (URI endpoint in virtual header) for AIR Update Encounter API</li> </ul> </li> <li>• <b>Section 5.9</b> – Vaccines used for AIR Notifications <ul style="list-style-type: none"> <li>○ Clarified Batch number is optional in a systemic sense but mandatory for users when reporting to the AIR.</li> </ul> </li> <li>• <b>Section 6.2</b> – Provider number validation / Check digit routine <ul style="list-style-type: none"> <li>○ Correction of content for the Practice Location Character.</li> </ul> </li> <li>• <b>Section 6.4</b> – AIR Provider Number Validation <ul style="list-style-type: none"> <li>○ The alpha characters must be in UPPERCASE for State Code and check digit.</li> </ul> </li> <li>• <b>Section 8.1</b> – Inbound Subject Id headers <ul style="list-style-type: none"> <li>○ Added new Appendix C – HTTP Headers to define what differing values are required (per Web Service) for dhs-subjectId and dhs-subjectIdType.</li> </ul> </li> </ul>
25 August 2021	<p>Version 3.0.2</p> <p>Minor update –</p> <ul style="list-style-type: none"> <li>• <b>Section 2</b> – Service Summary <ul style="list-style-type: none"> <li>○ Additional text for clarity when developing integration with the AIR.</li> </ul> </li> </ul>
29 September 2021	<p>Version 3.0.3</p> <p>Major update –</p> <ul style="list-style-type: none"> <li>• <b>Section 5.7</b> - Pre-processing – Inbound service properties <ul style="list-style-type: none"> <li>○ Updates to the table that describes the inbound Web Service properties used in Services Australia processing to clarify the new versions of existing web services.</li> </ul> </li> <li>• <b>Section 8.1</b> – Inbound subject ID headers <ul style="list-style-type: none"> <li>○ To clarify what values (per Web Service) are required within the following two associated HTTP headers (dhs-subjectId and dhs-subjectIdType)</li> </ul> </li> </ul>
4 February 2022	<p>Version 3.0.4</p> <p>Minor update –</p> <ul style="list-style-type: none"> <li>• <b>Section 5.2</b> – Services Australia Processing – YAML Validations <ul style="list-style-type: none"> <li>○ Removal of text for clarity</li> </ul> </li> <li>• <b>Section 5.7</b> – Pre-Processing – Inbound Service Properties <ul style="list-style-type: none"> <li>○ Amendment of text for clarity</li> </ul> </li> </ul>

Date of Issue	Brief Description of Change
	<ul style="list-style-type: none"> <li><b>Section 5.9 – Vaccines used for AIR Notifications</b> <ul style="list-style-type: none"> <li>Updated description for Batch number as it is mandatory for COVID-19 vaccines.</li> </ul> </li> </ul>
11 July 2022	Version 3.0.4 - Minor update <ul style="list-style-type: none"> <li>Updated Developer Support team name and email address to Developer Liaison</li> </ul>
December 2023	Version 3.0.6 – Minor update <ul style="list-style-type: none"> <li>Section 5.7 Inbound Service Properties               <ul style="list-style-type: none"> <li>Added AIR API – Immunisation Encounter v.1.3.0</li> <li>Added AIR API – Immunisation Encounter v.1.3.0</li> </ul> </li> <li>Section 5.9 Vaccines used for AIR notifications               <ul style="list-style-type: none"> <li>Batch number requirements added</li> </ul> </li> <li>Appendix C HTTP Headers               <ul style="list-style-type: none"> <li>AIR Record Encounter API 1.3.0</li> <li>AIR Individual Immunisation History Details API 1.2.0</li> <li>AIR Update Encounter API 1.2.0</li> </ul> </li> </ul>
07 August 2023	Version 3.0.7 - Minor update <ul style="list-style-type: none"> <li>Corrected endpoints in table 5.7 Pre-Processing</li> </ul>
14 October 2023	Version 3.0.8 - Minor update <ul style="list-style-type: none"> <li>Corrected spelling error retuned to returned - Section 5.4 General Errors</li> </ul>
6 November 2024	Version 3.0.9 - Minor update <ul style="list-style-type: none"> <li><b>Section 5.5 – Data Conditionality Details</b> <ul style="list-style-type: none"> <li>Format types updated</li> </ul> </li> </ul>

## Associated Documents

The following table lists all documents that are relevant to this document:

Document Name	TECH.SIS
AIR Developers Guide	User Guide
AIR Vaccine Code Formats	User Guide
AIR Message Code List	User Guide
AIR Web Services Change Guide	Change Guide
AIR Record Encounter	TECH.SIS.AIR.02
AIR Planned Catch Up Date	TECH.SIS.AIR.03

Document Name	TECH.SIS
AIR API Authorisation	TECH.SIS.AIR.04
AIR API Individual Details	TECH.SIS.AIR.05
AIR API Medical Exemptions	TECH.SIS.AIR.06

## Definitions, Acronyms and Abbreviations

The following table provides a list of all terms, acronyms and abbreviations required to properly interpret this document and the System Interface Specifications:

Acronym	Description
AIR	Australian Immunisation Register- A national register that records all vaccinations given to individuals of all ages.
AIR-WS	Australian Immunisation Register Web Service
API	Application Programming Interface
B2B	Business to Business
CA	Client Adaptor - A suite of Application Programming Interfaces (API's) developed for online Medicare claiming (including AIR). The APIs are utilised at Health Care Locations (HCL) to interface between Client Systems (CS) and Medicare's systems using the latest web service channel. Client Adaptors are being replaced by the more modern B2B Web Services technology.
Catch up schedule	Catch up schedules are recorded on the Australian Immunisation Register (AIR) so that children or individuals may have an up-to-date status for family assistance payments purposes for the duration of the catch up schedule. Catch up schedules do not bring children or individuals up-to-date for immunisation purposes.
Claim	Group of one or more encounters. A claim will always have the same information provider but may have one or more different immunisation providers.
CS	Client System is a generic name for the software systems provided by a software developer used at Health Care Locations (HCL). Also known as Practice Management Software (PMS).
Date of service	The date entered on an Encounter Header form to record the immunisation date for all episodes for that encounter.
DVA	The Commonwealth Department of Veterans' Affairs
ECLIPSE	Electronic Claim Lodgment and Information Processing Service Environment
Encounter	A visit to a general practitioner or a vaccination provider where one or more episodes (vaccines) are administered.
Episode	An immunisation given to the individual by the vaccination provider. Each encounter will have at least one episode and may have up to five.
Health Care Location (HCL)	A Health Care Location is where the web services enabled software is located that is used by health professionals and administrators to send transmissions to the agency.
Health Care Organisation (HCO)	A Health Care Organisation is the entity registered in PRODA for B2B Web Service transmissions.
Health Systems Developer Portal	This secure platform (the portal) provides a gateway to access our licenced development material and API's, and to manage your applications and company details when on-boarding with Services Australia.
HPI-O	Healthcare Provider Identifier – Organisation (HPI-O) is allocated to organisations that deliver health services (e.g. hospitals, health centres). This identifier forms part of the national infrastructure needed to support secure electronic communications and in particular the My Health Record system.
HPI-I	Healthcare Provider Identifier - Individual (HPI-I) is allocated to health professionals involved in providing patient/client care.



	This identifier forms part of the national infrastructure needed to support secure electronic communications and in particular the My Health Record system.
HTTP	The Hypertext Transfer Protocol is a stateless application-level protocol for distributed, collaborative, hypertext information systems.
ICT	Information and Communications Technology
IHI	Individual Healthcare Identifier (IHI) is allocated to individuals enrolled in the Medicare program or issued a Department of Veterans' Affairs treatment card and others who seek healthcare in Australia (e.g. tourists, visa card holders). This identifier forms part of the national infrastructure needed to support secure electronic communications and in particular the My Health Record system.
Immunisation date	The date the immunisation was provided.
Immunisation provider	The provider who administered the vaccine to the individual.
Information payment	Eligible vaccination providers can get an information payment for completing a National Immunisation Program Schedule or a planned catch-up schedule for a child under 7 years old and recording it on the AIR. The information payments are up to \$6 per completed National Immunisation Program Schedule and \$6 per completed planned catch-up schedule for children under 7 years old.
Information provider	This is the provider who sent the information to the AIR. An information provider may be the same as an immunisation provider.
IRN	Individual Reference Number. A unique, identifying number for each person listed on a Medicare card. It appears to the left of each name on the Medicare card.
IT	Information Technology
JSON	JavaScript Object Notation (JSON) - an open-standard file format that uses human-readable text to transmit data objects consisting of object-properties pairs and array data types (or any other serializable value).
Medicare	Medicare is Australia's universal health insurance scheme. It guarantees all Australians (and some overseas visitors) access to a wide range of health and hospital services at low or no cost.
Medical contraindication	An individual may have a contraindication recorded on the AIR if they are "... assessed by a general practitioner, a paediatrician, a public health physician, an infectious diseases physician or a clinical immunologist as having a medical contraindication to a vaccine, and as a result should not receive a vaccination".
Message	In ICT terms, a message is a logical unit of information to communicate between ICT systems
Minor Id	The Minor Id is an identifier used by Services Australia. It is the identifier allocated to the location by the software developer (vendor) and is used to identify the transmission origin. The Minor Id is also known as the Customer Id, Location Id or Software Id.
Natural immunity	An individual may have a natural immunity recorded on the AIR if they are "... assessed by a general practitioner, a paediatrician, a public health physician, an infectious diseases physician or a clinical immunologist as not requiring a vaccination because the individual has contracted a disease or diseases, and as a result has developed a natural immunity".
NOI	Notice of Integration. For each Software Product Release a software developer, in conjunction with Online Technical Support (OTS), performs a series of integration tests. If the integration tests are successful, details about the Software Product Release are captured in the Software Developer (Vendor) Registration database and the software developer is issued with a NOI.
OTS	Online Technical Support
PBS	Pharmaceutical Benefits Scheme
PMS	Practice Management Software/System is a generic name for the software systems used at HCL's. Also known as Client System (CS).
PRODA	The Provider Digital Access system that authenticates and manages identity for providers and organisations.
Receipt date	This is the date the information is received on the AIR.

REST	REST (Representational State Transfer) defines a set of architectural principles by which you can design Web Services that focus on a system's resources, including how resource states are addressed and transferred over HTTP by a wide range of clients written in different languages.
RESTful	RESTful APIs enable the developer to develop any kind of web application having all possible CRUD (create, retrieve, update and delete) operations.
Services Australia	Services Australia is an Australian Government agency within the Social Services portfolio. The agency, formerly known as the Department of Human Services, continues to deliver Medicare, Centrelink and Child Support payments and services
Software Instance	A Software Instance (SI) node represents an instance of an off-the-shelf software product or equivalent proprietary item of software.
TECH.SIS	Technical System Interface Specification
the agency	Services Australia (the agency)
the portal	Refer to Health Systems Developer Portal
Vaccination provider	A medical practitioner or a person who is recognised by Services Australia as a provider of vaccinations to individuals as per the <i>Australian Immunisation Register Act 2015</i> .
Vaccine trial	An individual may have a vaccine trial recorded on the AIR if they are participating in a trial that has been approved by a Department of Health and only for the duration of the trial period.
Web Service Request	A Web Service Request is a message sent from a Service Consumer to a Service Provider.
Web Service Response	A Web Service Response is a message returned from a Service Provider to a Service Consumer in response to a Web Service Request.
WS	Web Services are application components which enable the communications between the Client Systems (CS) and the agency's ICT systems using the Web. Web Services is replacing the older Client Adaptor technology.
WS-Client	Web Service Client. An application or software that consumes a Web Service.
YAML	YAML Ain't Markup Language (YAML) - a human-readable data serialization language that is commonly used for configuration files, but could be used in many applications where data is being stored (e.g. debugging output) or transmitted (e.g. document headers). YAML is used to define data requirements within the web service request.
X-IBM-Client Id	X-IBM-Client Id is the unique Client Id generated by the Health Systems Developer Portal for a software product at the time of the registration.

# 1 Introduction

This document forms part of the Web Services Licenced Material as referenced in the Interface Agreement. The Web Services Licenced Material includes guides, documents and other material.

For a complete list of other Web Services Licence Material associated with Web Services, *refer to the document "AIR Developers Guide"*.

## 1.1 Document Purpose

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The purpose of this document is to provide software developers with the information to develop software products to interface with Services Australia (the agency) and to integrate with the AIR Web Services.

This document provides technical information to assist software developers with the application of Web Services for retrieval of immunisation information for an individual and to record immunisation notifications using AIR Web Services.

## 1.2 Scope

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The scope of this document is to describe the Common Rules for AIR Web Services functions within the AIR programme.

## 1.3 Target Audience

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The intended audience for this document includes software developers with an interest in integrating AIR Web Services into their product, including:

- IT Managers
- IT Architects and System Designers
- Business/Systems Analysts
- Software Developers (Medicare Online, PBS and AIR only)

## 1.4 Legal, Privacy & Policy Requirements

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When building your software product/s you should consider that end users, e.g. health professionals, have legal, privacy and policy requirements when dealing with their patients /individuals' information. Below are some requirements.

Participating health professionals may utilise the services and information provided including personal information only in accordance with National (*Privacy Act 1988, Health Insurance Act 1973, Australian Immunisation Register Act 2015* and other relevant legislation), State or Territory legislation, Policy and Guidelines.

Participating health professionals are advised to verify that their intended use of services and information does not contravene any applicable legislation or regulations or is inconsistent with any applicable policy or guidance.

All transactions with AIR Web Services are recorded in the System Log by the Service Operator, Services Australia (the agency).

## 1.5 Pre-Requisites

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The pre-requisites for the reader to understand this document are:

- A basic knowledge or familiarity of Web Services concepts and terms.
- A basic knowledge or familiarity of web based business applications.

## 1.6 Terminology

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Refer to Definitions, Acronyms and Abbreviations for a list of Acronyms and Terms used in this document.

## ***1.7 Changes***

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Please contact the Developer Liaison team at [DeveloperLiaison@servicesaustralia.gov.au](mailto:DeveloperLiaison@servicesaustralia.gov.au) or on 1300 550 115 if you have any feedback or recommendations for this documentation.

## 2 Service Summary

The AIR system has capacity to receive immunisation data electronically from Health Care Locations (HCLs) and software developers. The users of these systems currently send transmissions to Services Australia using the Client/Server Adaptor.

To align with current industry ICT standards, the agency is replacing the current Adaptors with RESTful Web Services, which will require a shift in the way transmissions are sent to the agency from Client System (CS) software.

Software changes will be required by all software developers to allow all health professionals and HCLs who wish to continue to transmit data to the agency.

With the cessation of all PKI (SHA-1) certificates effective March 2022, Services Australia has adopted the PRODA organisational authentication model to send and receive Web Service requests/responses to and from the agency.

This document aims to outline the AIR inbound/outbound common framework for a 'Web Service Request' from a Client System (CS) to the agency system for the various functions and detail the associated Web Service Response.

The CS will be required to use the PRODA organisational model rather than PKI (SHA-1) certificates to send and receive Web Service requests/responses to and from the agency.

This framework is used for the transmission of data as well as 'Verification Requests' from HCLs such as:

- Practices/Hospitals
- State Health Departments
- Health Networks and Health Services
- Pharmacies
- Councils
- Software developers

### Additional requirements

Whilst some fields are optional for health professionals to select when submitting to the AIR, it is **mandatory** for software developers to develop for all fields and their corresponding values.

## 3 Preconditions

In order to send a request the following conditions must be met:

- The organisation must have a valid **PRODA** organisation account with the associated permissions to transmit to AIR; and
- The CS Software must have a **Notice of Integration** (NOI) in place. This means that the CS is authorised to transmit a Web Service Request for the B2B channel and function governed under the approved NOI for the transmitting location;
- The location's PRODA organisation credentials are successfully verified for the Web Service Request by the agency;
- The transmitting location (Minor Id) and the organisation's associated PRODA account have been registered (linked) within the *Medicare Online/ECLIPSE/DVA/AIR* channel.
- The information provider is validated and authorised as registered on the AIR to access these Web Services.

**Note:** If a CS has an existing NOI in place for client adaptors, this is not transferrable. Any software developed for Web Services has to go through the full testing process to receive a NOI for Web Services.

## 4 AIR Web Services – Overview

### 4.1 Description

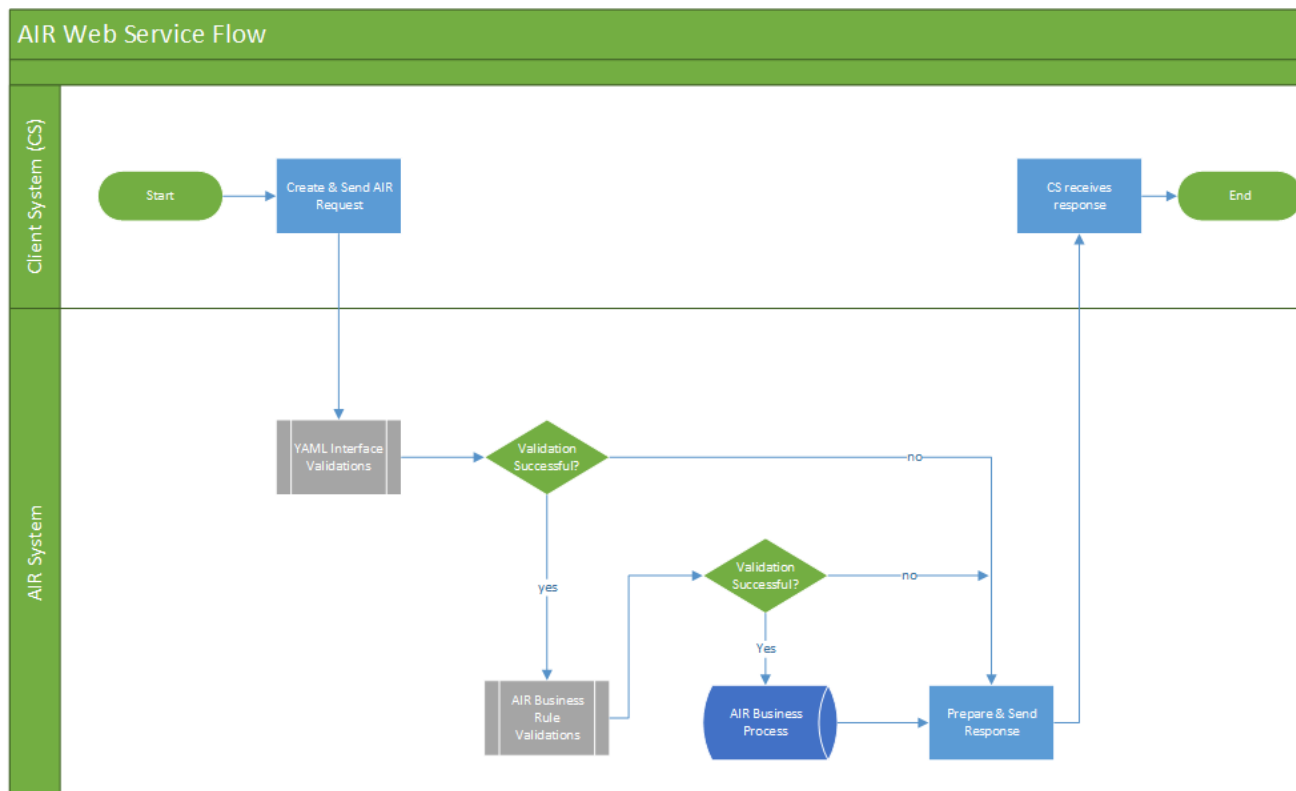
With the shift from Adaptors, revised Common rules will be applied to each business function using the new AIR Web Services.

Each Web Service Request sent from a CS will receive a Web Service Response message from Services Australia. Where a system error occurs, the agency will send a Web Service Response message back to the CS with identified error information and will stop processing. A Web Service Response message is also sent to the CS where the transmission has had a valid success outcome.

All CS's using Web Services will conform to standardised handling with respect to the header and the sending and receiving of Web Service Request and Response messages.

Specific processing, in relation to an individual business function is related to the specific data attributes and elements contained within the body of the Web Service transmission.

### 4.2 AIR Web Service Process Flow Diagram



## 5 AIR Web Service – Common Processing

Under the new Web Services model, the CS will be required to create and send a Web Service Request to Services Australia for the AIR channel.

The agency will assess the Web Service Request and will send the CS a Web Service Response message advising of the outcome of the Web Service Request sent. The Web Service Response message will advise the CS of the outcome of the transmission (i.e. failure, success and/or any associated payload error/s).

CS's will be required to move to the PRODA organisation model in order to transmit new Web Service Requests in a secure digital environment to the agency. Post the transition period (March 2022) once on Web Services the CS will only transmit using the Web Services B2B channel for new transmissions; the CS cannot revert back to using the Adaptor channel.

### 5.1 CS Processing – Web Service Request

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- CS creates a Web Service Request for a business function;
  - Transmission is signed using PRODA organisational credentials for the transmitting location
  - Web Service Request is initiated and transmitted to Services Australia for processing
- The agency receives the Web Service Request and processes accordingly;
- The agency creates and sends CS a Web Service Response. This is after the transmission has passed basic YAML validations and has been assessed/processing completed; and
- CS receives the Web Service Response sent by the agency, containing the outcome of the Web Service Request (success or error)

### 5.2 Services Australia Processing – YAML Validations

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#### Basic Request Validations

Services Australia will conduct generic YAML validations on the data within the Virtual Web Service Request.

If a Validation fails:

- Report the error in the Web Service Response back to the CS;
- Stop Processing – only one error is returned to the CS.

If successful:

- Send to the agency's system for further processing of the request.

### 5.3 Inbound Service – Virtual Request Headers

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#### Virtual Request Headers

The following information is supplied in the Virtual Request Headers of the Web Service Request message sent from the CS to Services Australia within the JSON web token. These headers are in addition to the associated *payload* information that the CS will transmit as part of the message.

Name	Format/Value	Mandatory	Description of Name	Example of data
Authorisation	String	Yes	The 'Authorisation' value contains PRODA security credential information that the server uses to permit access to the API suite.	Refer to PRODA documentation for details, which is available in the Health Systems Developer Portal

Name	Format/Value	Mandatory	Description of Name	Example of data
Accept	String	No	The Accept request-header field is used to specify certain media types, which are acceptable for the response.	application/json
Content-Type	String	Yes	The Content-Type entity-header field indicates the media type of the entity-body sent to the recipient.	application/json
dhs-messageld	String - urn:uuid: format.	Yes	The 'dhs-messageld' value is a unique identifier through which the message can be later identified.	urn:uuid:ee703doc-844d-4fdf-843f-64c0966f9359w
dhs-correlationId	String - urn:uuid: format:  1-4 = urn: 5-9 = uuid: 10-33 = transaction id	Yes	The 'dhs-correlationId' value is a unique identifier through which the session (a related set of messages) can be grouped. If there is no session, each request should contain a unique correlation ID.	urn:uuid:MAT000991234567812345678
dhs-auditId	String	Yes	The 'dhs-auditId' value is the Minor Id of the HCL (provided by the software developer) which is sending the 'Web Service Request'	MAT00099
dhs-auditIdType	String	Yes	The 'dhs-auditIdType' value represents the class of audit user specified.	Minor Id – known in AIR system as Customer id or Software id
dhs-subjectId	String - 'ddMMyyyy'	Yes	For operations that relate to a single consumer this element holds the identifier (e.g. Date of Birth) for that subject. As an example, if a user makes an API request to retrieve details about an individual on the AIR with DOB 18/10/2005, then 18102005 should be used as the 'dhs-subjectId'. This field can be used by the AIR to search transmission logs.  This value may differ dependant on the API used.  Refer to <i>Appendix C – HTTP Headers</i> for more information.	18102005



Name	Format/Value	Mandatory	Description of Name	Example of data
dhs-subjectIdType	String	Yes	The 'dhs-subjectIdType' value represents the class type of the subject.  This value may differ dependant on the API used.  Refer to <i>Appendix C – HTTP Headers</i> for more information.	Date of Birth
dhs-productId	String	Yes	The 'dhs-productId' value represents the application or software product used to submit the 'Web Service Request'. The format of the header value is Product name and Product version for the ESB to validate.	SoftwareName 4.1
X-IBM-Client-Id	String	Yes	This is the Client Id generated by the portal for a software developer (vendor). It is unique to a software developer (vendor) rather than using a software name, which was generally chosen by the software developer (vendor).	158e5907-a112-4045-a4b9-d9db3ace6fdb

## 5.4 General Errors

### YAML Header Rejections

The following error messages will be returned by Services Australia to the Client System. These errors are based on validations applied to the data contained in the Virtual Request Headers within the Web Service Request message sent to the agency.

Name (Scenario)	Usage (Description)	Status	Message
Response codes will follow the HTTP Rest standard unless otherwise indicated.			
Bad Authentication	Authorisation is not supplied or not valid for that service.	401 Unauthorized	User not authenticated.
Bad Client Id	X-IBM-Client-Id is not supplied.	401 Unauthorized	Invalid client id or secret.
Bad Client Id	X-IBM-Client-Id sent with the request is not valid for that service.	401 Unauthorized	Invalid client id or secret.
Bad Accept	Accept sent with the request is not application/json.	406 Not Acceptable	Not Acceptable
Service Temporarily Unavailable	The service is temporarily unavailable for consumption.	500 Internal Server Error	Service temporarily unavailable.
Content-Type is unknown	Content-Type (aka Media Type) is unknown value.	400 Bad Request	
Content-Type is blank or not set.	Content-Type is blank or not set.	415 Unsupported Media Type	Unsupported Media Type

Name (Scenario)	Usage (Description)	Status	Message
Content-Type starts with 'application/' and unknown.	Content-Type is not 'application/json'.	415 Unsupported Media Type	Unsupported Media Type
Content-Type is 'application/xml'.	Content-Type is 'application/xml'.	400 Bad Request	Invalid XML payload received.
Mandatory header not supplied	The header is marked as Mandatory and was not supplied. This excludes Content-Type and X-IBM-Client-Id.	400 Bad Request	One or more required API parameters are missing in the API request.

## YAML payload rejections

The API returns the following errors where any of the conditions are met:

Scenario	Usage (Description)	Message	Parameter
Invalid	Invalid value type provided	Invalid value type '{1}'	{1} = 'integer' or 'string'
Invalid	Mandatory object or value missing.	Invalid object: the property '{1}' is missing.	{1} = Object or Value (enclosed with ' ' e.g. 'familyName')
Invalid	Less than min length provided.	Invalid string: the minimum length must be at least {1} (got only {2}).	{1} = minimum length {2} = supplied length
Invalid	More than max length provided.	Invalid string: the maximum length must be at most {1} (got {2}).	{1} = maximum length {2} = supplied length
Invalid	Value does not meet pattern.	Invalid string : '{1}' does not match pattern '{2}'.	{1} = supplied details {2} = pattern
Invalid	Character '\ ' within string.	Invalid string syntax	N/A
Invalid	Value set as integer with leading zero.	Invalid number syntax	N/A
Invalid	Syntax error - payload does not start with '{'.	Invalid JSON syntax	N/A
Invalid	Syntax error - payload does not end with '}'.	Invalid JSON format	N/A
Invalid	Syntax error - in JSON body – missing quote (single), commas and brackets in non-array objects.	Invalid object syntax	N/A
Invalid	Syntax error - in JSON body – missing brackets in array objects.	Invalid array syntax	N/A
Invalid	Syntax error - in JSON body – missing both quotes in string value.	Invalid JSON property value	N/A

The agency will return an error code along with the error message text.

**Note:** The agency is using an off the shelf product called API CONNECT to complete YAML payload validations. We have listed all errors that are likely to be returned, however this is not an exhaustive list.

### JSON error sample:

```
{
  "code": 5,
  "codeType": "DHSEIN",
  "message": "Invalid string: the string maximum length must be at most 1 (got 2)."
}
```

Refer to *Appendix B* for another example.

## 5.5 Data Conditionality Details

The following component conditionality is defined at the Data (YAML) level. The business rules applied to these fields are documented in the related TECH.SIS document for each function.

### Key Types:

Term	Description
<b>O</b>	Object
<b>V</b>	Value
<b>Integer</b>	A whole number (not a fraction); can be positive, negative or zero.
<b>N/A</b>	Not applicable
<b>Property</b>	This could be either an Object or a Value.
<b>Size</b>	Indicates the size of the field. <b>Note:</b> Either a Minimum & Maximum range (3-5) or an exact size (10) will be displayed.
<b>String</b>	A linear sequence of characters, words, or other data.
<b>0..1</b>	Indicates the object/value is optional and can have only one instance.
<b>0..*</b>	Indicates the object/value is optional and can have unlimited instances.
<b>1..1</b>	Indicates the object/value is mandatory and must have only one instance.
<b>1..*</b>	Indicates the object/value is mandatory and can have unlimited instances (but must have at least one instance).

### Format Types:

Term	Description
<b>Conditionality</b>	<b>M</b> - Mandatory, <b>O</b> – Optional, <b>C</b> - Conditional
<b>N/A</b>	Not applicable
<b>A</b>	Alpha (A-Z, a-z)
<b><u>A</u></b>	Alpha (A-Z) upper case only
<b>B</b>	Boolean
<b>N</b>	Numeric (0-9)
<b>AN</b>	Alpha &/or Numeric (A-Z, a-z, 0-9, maintains leading zeros)
<b><u>AN</u></b>	Alpha &/or Numeric (A-Z upper case only, 0-9, maintains leading zeros)
<b>ANS</b>	Alphanumeric Special (A-Z, a-z, 0-9, special chars in the accepted (JSON) standard also list of allowed Special characters need to be described for each property {object/value} it is applied to).
<b><u>ANS</u></b>	Alphanumeric Special (A-Z uppercase only, 0-9, special chars in the accepted (JSON) standard also list of allowed Special characters need to be described for each property {object/value} it is applied to).
<b>CS</b>	Client System is a generic name for the software systems used at Health Care Location to input the data needed to submit a transaction.
<b>date</b>	OpenAPI String Format: date= full-date notation, for example, 2017-07-21
<b>date-time</b>	OpenAPI String Format: date-time = date-time notation, for example, 2017-07-21T17:32:28+10:00
<b>time</b>	String Format: time =full-time notation, for example, 17:32:28+10:00

## **5.6 Further Processing in Services Australia System**

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The request will be forwarded to the Services Australia System for further processing and validations once the Web Service Request has passed the basic YAML validations.

The agency will apply further basic validations (not applied in the basic YAML validations) before logging the Web Service Request message information.

Services Australia will perform the common registration and validation checking, which is applicable to all functions/services. The agency will apply the business specific rules according to the type of function/service being requested.

Upon completion, the agency will log the response message and pass back a response. The logging is conducted regardless of the outcome of the web service request e.g. success or error associated for a web service request.

For further information on Business Rules processing, please refer to the individual TECH.SIS document for the relevant function.

For further information on error messages, please refer to the individual TECH.SIS documents for each function.

## **5.7 Pre-Processing**

---

Pre-processing includes the following:

- Web Service Request Validations – the system performs specific data validations not covered by the validations applied by the YAML validation checks
- The Minor Id (dhs-auditId) will be checked against the Information Provider to ensure they are authorised within AIR to complete the transmission.
- The location is checked against the PRODA organisation credentials within the transmission at the application level.

## Inbound Service Properties

The following table describes the inbound Web Service properties used in Services Australia processing. Where:

- **Service** is the name of the YAML within the Health Systems Developer Portal
- **Version** is the version of the YAML within the Health Systems Developer Portal
- **restOperationName** is the operation name found in the YAML
- **Description** is the service description displayed for the YAML within the Health Systems Developer Portal
- **Path** is the endpoint (URI in virtual header)
- **System** is the application used in Services Australia Values are 'air'

**Note:** Refer to the YAML on the Health Systems Developer Portal for a full description of the service.

API Product	Service	Version	restOperationName	Description	Path	System
AIR API – Immunisation Encounter v.1.3.0	AIR Record Encounter API	1.3.0	air-immunisation-encounter-record@1.3.0-eigw-post	Record Encounter request	/air/immunisation/v1.3/encounters/record	air
	AIR Planned Catch Up Date API	1.1.0	air-immunisation-schedule-catchup@1.1.0-eigw-post	Add Planned Catch Up	/air/immunisation/v1.1/schedule/catchup	air
AIR API – Immunisation Encounter v.1.2.0	AIR Record Encounter API	1.2.0	air-immunisation-encounter-record@1.2.0-eigw-post	Record Encounter request	/air/immunisation/v1.2/encounters/record	air
	AIR Planned Catch Up Date API	1.1.0	air-immunisation-schedule-catchup@1.1.0-eigw-post	Add Planned Catch Up	/air/immunisation/v1.1/schedule/catchup	air
AIR API – Individual Details v1.2.0	AIR Identify Individual API	1.1.0	air-immunisation-individual-details@1.1.0-eigw-post	Identify Individual details request	/air/immunisation/v1.1/individual/details	air

API Product	Service	Version	restOperationName	Description	Path	System
	AIR Individual Immunisation History Details API	1.2.0	air-immunisation-history-details@1.2.0-eigw-post	Get immunisation details request	/air/immunisation/v1.2/individual/immunisation-history/details	air
	AIR Individual Immunisation History Statement API	1.0.0	air-immunisation-history-statement@1-eigw-post	Immunisation history statement request	/air/immunisation/v1/individual/immunisation-history/statement	air
	AIR Individual Medical Contraindication History API	1.0.0	air-immunisation-med-contraindication-history@1-eigw-post	Get Medical Contraindication History	/air/immunisation/v1/individual/medical-contraindication/history	air
	AIR Individual Natural Immunity History API	1.0.0	air-immunisation-natural-immunity-history@1-eigw-post	Get Natural Immunity History	/air/immunisation/v1/individual/natural-immunity/history	air
	AIR Individual Vaccine Trial History API	1.0.0	air-immunisation-vaccine-trial-history@1-eigw-post	Get Vaccine Trial History	/air/immunisation/v1/individual/vaccine-trial/history	air
	AIR Individual Additional Vaccine Indicator Add API	1.0.0	air-immunisation-additional-vaccine-indicator-add@1-eigw-post	Add Additional Vaccine Indicator request	/air/immunisation/v1/individual/additional-vaccine-indicator/add	air
	AIR Individual Additional Vaccine Indicator Remove API	1.0.0	air-immunisation-additional-vaccine-indicator-remove@1-eigw-post	Remove Additional Vaccine Indicator request	/air/immunisation/v1/individual/additional-vaccine-indicator/remove	air
	AIR Individual Indigenous Status Update API	1.0.0	air-immunisation-indigenous-status-update@1-eigw-post	Update Indigenous Status request	/air/immunisation/v1/individual/indigenous-status/update	air

API Product	Service	Version	restOperationName	Description	Path	System
	AIR Update Encounter API	1.2.0	air-immunisation-encounter-update@1.2.0-eigw-post	Update Encounter request	/air/immunisation/v1.2/encounter/update	air
AIR API – Individual Details v1.1.0	AIR Identify Individual API	1.1.0	air-immunisation-individual-details@1.1.0-eigw-post	Identify Individual details request	/air/immunisation/v1.1/individual/details	air
	AIR Individual Immunisation History Details API	1.1.0	air-immunisation-history-details@1.1.0-eigw-post	Get immunisation details request	/air/immunisation/v1.1/individual/immunisation-history/details	air
	AIR Individual Immunisation History Statement API	1.0.0	air-immunisation-history-statement@1-eigw-post	Immunisation history statement request	/air/immunisation/v1/individual/immunisation-history/statement	air
	AIR Individual Medical Contraindication History API	1.0.0	air-immunisation-med-contraindication-history@1-eigw-post	Get Medical Contraindication History	/air/immunisation/v1/individual/medical-contraindication/history	air
	AIR Individual Natural Immunity History API	1.0.0	air-immunisation-natural-immunity-history@1-eigw-post	Get Natural Immunity History	/air/immunisation/v1/individual/natural-immunity/history	air
	AIR Individual Vaccine Trial History API	1.0.0	air-immunisation-vaccine-trial-history@1-eigw-post	Get Vaccine Trial History	/air/immunisation/v1/individual/vaccine-trial/history	air
	AIR Individual Additional Vaccine Indicator Add API	1.0.0	air-immunisation-additional-vaccine-indicator-add@1-eigw-post	Add Additional Vaccine Indicator request	/air/immunisation/v1/individual/additional-vaccine-indicator/add	air



API Product	Service	Version	restOperationName	Description	Path	System
	AIR Individual Additional Vaccine Indicator Remove API	1.0.0	air-immunisation-additional-vaccine-indicator-remove@1-eigw-post	Remove Additional Vaccine Indicator request	/air/immunisation/v1/individual/additional-vaccine-indicator/remove	air
	AIR Individual Indigenous Status Update API	1.0.0	air-immunisation-indigenous-status-update@1-eigw-post	Update Indigenous Status request	/air/immunisation/v1/individual/indigenous-status/update	air
	AIR Update Encounter API	1.1.0	air-immunisation-encounter-update@1.1.0-eigw-post	Update Encounter request	/air/immunisation/v1.1/encounter/update	air
AIR API – Authorisation v1.0.0	AIR Authorisation Access List API	1.0.0	air-authorisation-access-list@1-eigw-post	Get Authorisation Access List	/air/immunisation/v1/authorisation/access/list	air
AIR API – Medical Exemptions v1.0.0	AIR Individual Medical Contraindication Record API	1.0.0	air-immunisation-med-contraindication-record@1-eigw-post	Record Medical Contraindication request	/air/immunisation/v1/individual/medical-contraindication/record	air
	AIR Individual Natural Immunity Record API	1.0.0	air-immunisation-natural-immunity-record@1-eigw-post	Record Natural Immunity request	/air/immunisation/v1/individual/natural-immunity/record	air
AIR API – Immunisation Encounter v.1.1.0	AIR Record Encounter API	1.1.0	air-immunisation-encounter-record@1.1.0-eigw-post	Record Encounter request	/air/immunisation/v1.1/encounters/record	air
	AIR Planned Catch Up Date API	1.1.0	air-immunisation-schedule-catchup@1.1.0-eigw-post	Add Planned Catch Up	/air/immunisation/v1.1/schedule/catchup	air
AIR API – Individual Details v1.0.0	AIR Identify Individual API	1.0.0	air-immunisation-individual-details@1-eigw-post	Identify Individual details request	/air/immunisation/v1/individual/details	air

API Product	Service	Version	restOperationName	Description	Path	System
	AIR Individual Immunisation History Details API	1.0.0	air-immunisation-history-details@1-eigw-post	Get immunisation details request	/air/immunisation/v1/individual/immunisation-history/details	air
	AIR Individual Immunisation History Statement API	1.0.0	air-immunisation-history-statement@1-eigw-post	Immunisation history statement request	/air/immunisation/v1/individual/immunisation-history/statement	air
	AIR Individual Medical Contraindication History API	1.0.0	air-immunisation-med-contraindication-history@1-eigw-post	Get Medical Contraindication History	/air/immunisation/v1/individual/medical-contraindication/history	air
	AIR Individual Natural Immunity History API	1.0.0	air-immunisation-natural-immunity-history@1-eigw-post	Get Natural Immunity History	/air/immunisation/v1/individual/natural-immunity/history	air
	AIR Individual Vaccine Trial History API	1.0.0	air-immunisation-vaccine-trial-history@1-eigw-post	Get Vaccine Trial History	/air/immunisation/v1/individual/vaccine-trial/history	air
	AIR Individual Additional Vaccine Indicator Add API	1.0.0	air-immunisation-additional-vaccine-indicator-add@1-eigw-post	Add Additional Vaccine Indicator request	/air/immunisation/v1/individual/additional-vaccine-indicator/add	air
	AIR Individual Additional Vaccine Indicator Remove API	1.0.0	air-immunisation-additional-vaccine-indicator-remove@1-eigw-post	Remove Additional Vaccine Indicator request	/air/immunisation/v1/individual/additional-vaccine-indicator/remove	air
	AIR Individual Indigenous Status Update API	1.0.0	air-immunisation-indigenous-status-update@1-eigw-post	Update Indigenous Status request	/air/immunisation/v1/individual/indigenous-status/update	air
	AIR Update Encounter API	1.0.0	air-immunisation-encounter-update@1-eigw-post	Update Encounter request	/air/immunisation/v1/encounter/update	air

API Product	Service	Version	restOperationName	Description	Path	System
AIR API – Immunisation Encounter v.1.0.0	AIR Record Encounter API	1.0.0	air-immunisation- encounter- record@1-eigw-post	Record Encounter request	/air/immunisation/v1/encounters/record	air
	AIR Planned Catch Up Date API	1.0.0	air-immunisation- schedule- catchup@1-eigw- post	Add Planned Catch Up	/air/immunisation/v1/schedule/catchup	air

## 5.8 Provider Checks (*ProviderIdentifierType*)

Providers must have registered their details with the agency prior to using AIR Web Services. Provider numbers will be validated to check that they are current in the AIR system at the receipt date of every AIR-WS request and that the information provider number has the authorisation to perform that action.

Value Name	Type	Length	Cardinality	Description	Business Rules and Data Validations	Error messages
providerNumber	string	6..8	1..1	This contains the number of the information provider. This is the provider who is sending the information to the AIR, may not necessarily be the immunisation provider although can be.	Information provider number must have a valid check digit  Refer to <i>Appendix A</i> for valid format.	<b>AIR-E-1017</b>
					Information provider number must exist and be current at the date of submission in the AIR System.	<b>AIR-E-1029</b>
					For other vaccination providers with an AIR provider number, the information provider number must be associated to the correct Minor id that has been linked to the authenticated PRODA organisation	<b>AIR-E-1039</b>
					Information provider number must be authorised in the AIR system to use the applicable service	<b>AIR-E-1063</b>

hpioNumber	string	16..16	0..1	Identifies the healthcare identifier assigned to a healthcare provider organisation reporting or requesting the immunisation data.	Must be 16 numeric characters.	<b>AIR-E-1016</b>
hpiiNumber	string	16..16	0..1	Identifies the healthcare identifier assigned to an individual healthcare provider reporting or requesting the immunisation data.	Must be 16 numeric characters.	<b>AIR-E-1016</b>

## 5.9 Vaccines used for AIR Notifications

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Two (2) mandatory data elements for every AIR Episode are VaccineCode and VaccineDose.

A table presenting Equivalent and partial equivalent vaccines is displayed in the *AIR Vaccine Code Formats User Guide* on the portal and the Services Australia website.

A combination of these vaccines presented in a single encounter will cause that encounter to be rejected.

## 5.10 Medical Contraindication Type

---

Medical contraindications recorded on the AIR for a vaccine can be:

- Permanent, or
- Temporary

The valid codes for type of medical contraindication are:

Code	Description
P	Permanent
T	Temporary

## 5.11 Medical Contraindication Reason

The valid reasons for a medical contraindication differ depending on the type:

Code	Description	Type
A	Previous anaphylaxis	Permanent
I	Significant immunocompromise	
M	Acute major medical illness	Temporary
S	Significant immunocompromise of short duration	
P	Individual is pregnant	

## 5.12 Business Processing Rules

The Services Australia system will perform processing in accordance with Business Rules in the relevant TECH.SIS document by function e.g. validating provider numbers.

## 5.13 IndividualIdentifierType

This identifier is used following the positive identification of an individual using the *AIR Identify Individual API*. The individual identifier is an encrypted packet unique to the individual.

For example, 4a0c02d9a61189a5dfd63286fae3180824e0bd411f4266f14107948295a04c08.

This is a mandatory field to be re-used for subsequent requests pertaining to that individual using all other AIR Web Services.

**Note:** This field is not applicable for the *AIR Record Encounter API* and *AIR Planned Catch Up Date API*.

The identifier will only be valid for a temporary time period which is limited to 60 minutes.

Name	Type	Length	Cardinality	Description	Business Rules and Data Validations	Error messages
individualIdentifier	string	1..128	1..1	This identifier is unique for an identified individual and is to be re-used for subsequent requests.	Individual identifier must be valid and not expired	<b>AIR-E-1061</b>
					The individual's recorded cannot be updated	<b>AIR-E-1067</b>

## **5.14 Date Format (*dateType*)**

---

Expected Date format for all AIR Web Services will be 'ddMMyyyy'. For example, the 7<sup>th</sup> of August 2021 will be sent as 07082021.



## 5.15 System Error Handling

When a System Error occurs during business processing, a standard error is returned:

- System Error **AIR-E-1006** with the following associated text as follows:  
*An unexpected error has occurred. Please try again shortly. If the problem persists, take a screenshot of the error and email it to AIR.INTERNET.HELPDESK@servicesaustralia.gov.au with a description of what you were doing at the time the error occurred.*
- An error identifier will be appended in the error 'field' property to allow this to be quoted when reporting to Services Australia to investigate further. This will expedite Services Australia's ICT the ability to troubleshoot the occurrence. Refer to *Business Error Message Validation (ErrorMessageType)* section for more information.
- Cease processing – only one error is returned.

Business Rules are located in the Web Services TECH.SIS document for each specific business function.

For further information on error messages, please refer to individual TECH.SIS documents for each function.

## 5.16 Common Response Type

Property	Type	Length	Cardinality	Description
statusCode	string	10..10	1..1	<p>A ten digit code that can be used to determine the outcome of the response.</p> <p>The first 3 characters represent the system 'AIR'.</p> <p>The status code will represent either 'Information', a 'Warning' or an 'Error', indicated by the middle character of 'I', 'W' or 'E'.</p> <p>The last four characters give the statusCode a unique value corresponding to the associated message.</p>
codeType	string	1..6	1..1	<p>The codeType field represents the class of error, and consists of a parseable string in the following format:</p> <p>XXXYYZ</p> <p>where</p> <p>XXX is the 3 character context of the error code, as specified in the API suite. 'DHS' denotes a common error code, with other contexts used for business specific errors.</p> <p>Y is the error indicator – E for error, W for warning, I for informational. Almost always E.</p>

Property	Type	Length	Cardinality	Description
				ZZ is the layer indicator of the error code, which tells the client which layer of processing produced the error message: BU – Business Layer IN – Infrastructure Layer SE – Security Layer
message	string	1..255	1..1	Message associated with the status code describing the outcome of the request and/or any required further action to be taken by the CS.
errors	list	0..*	0..*	List of validation errors that may be returned. @ see ErrorMessageType

## 5.17 Error Format

---

Errors take the following format:

```
{
  "statusCode": "AIR-E-1005",
  "codeType": "AIREBU",
  "message": "The request contains validation errors.",
  "errors": [ {
    "code": "AIR-E-1017",
    "field": "Date of Birth",
    "message": "Invalid value 10132010 for field Date of Birth. The data element does not comply with the values permitted or has failed a check digit check."
  } ]
}
```

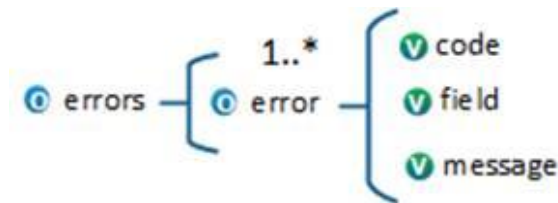
## 5.18 Business Error Message Structure

---

Business validation errors will conform to the following structure.

- errors
  - 1..\* error
    - code
    - field
    - message

## 5.19 Business Error Message Structure diagram



Key: **O** = Object      **V** = Value

## 5.20 Business Error Message Validation (ErrorMessageType)

Name	Type	Length	Cardinality	Description
code	string	10..10	1..1	A unique code associated with the error. The error code will be prefixed with "AIR-" and then 'I', 'W' or 'E' representing 'Information', 'Warning' or 'Error' respectively. For example AIR-E-1027.
field	string	N/A	1..1	Free text field representing which is the associated field to the error. This will be the hierarchy of the message {section.subsection.field} for example {individual.personalDetails.firstName}  <b>Note:</b> if AIR-E-1006 is returned, an error identifier will be appended, as below 'field': 'System Error – {error-identifier}'. The error-identifier will be an 8 character, alphanumeric string, e.g WZTWNZ9T
message	string	1..255	1..1	The message associated with the error code. It provides a descriptive message for the WS client.

## 5.21 Severity Codes

Used to determine the severity of a particular error:

Code (highest to lowest / top to bottom)	Description
Fatal	Fatal errors usually indicates that processing may no longer continue
Error	Error level errors indicate that processing of the transaction has failed and the process may or may not continue

Warning	Warnings generally indicate that something has gone wrong in the transaction but was able to complete regardless and the process may continue
Informational	Provides informational messages, usually for logging purposes

## **5.22 Post Processing**

---

Services Australia will send a Web Service Response for every Web Service Request received from the CS. The Web Service Response may contain either a successful status or the associated service error details.

## **5.23 Transition Rules**

---

### ***Pre-Transition Date < March 2022***

All locations will be able to transmit their requests using either framework (Adaptor or Web Service) for any function that the location has permission to transmit. The system will not apply any restrictions for health professionals and Health Care Locations (HCL)

### ***Post-Transition Date (> March 2022)***

All locations will be able to transmit their requests using Web Service framework only. PKI certificates will expire on this date, resulting in transmissions being rejected.

## **5.24 System Recovery**

---

All CS's will have the ability to resubmit data that has failed.

## **5.25 System Availability**

---

Web Services will use Services Australia digital service level standards for availability of ICT systems. Refer to the agency's Annual 'Corporate Plan'.

Scheduled maintenance outages will be required for application deployments and system housekeeping.

## 6 Appendix A

### 6.1 Medicare Card Number Validation

The following algorithm is the Medicare Check Digit Routine:

- (Digit 1) +
- (Digit 2 \* 3) +
- (Digit 3 \* 7) +
- (Digit 4 \* 9) +
- (Digit 5) +
- (Digit 6 \* 3) +
- (Digit 7 \* 7) +
- (Digit 8 \* 9)
- Divide the total by 10
- The remainder is the Check Digit.

**NOTE:** The check digit becomes the 9th digit in the Medicare Card number. The 10<sup>th</sup> digit is the Medicare Card issue number and must not be zero.

### 6.2 Provider Number Validation / Check Digit Routine

For Medical practitioners, midwives or nurse practitioners with a Medicare provider number, the Provider Number is comprised of:

- Provider Stem - a 6-digit number.
- 1 Practice Location Character - see below
- 1 Check Digit (see algorithm below)

For other vaccination providers, refer to AIR Provider Number Validation section for their valid format type.

### 6.3 Practice Location Character

The Practice Location Character indicates the order of the practices that a provider has been registered at. Each Practice Location Character is allocated a Practice Location Value (PLV) that is used in the Provider Check Digit Routine.

Character	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
Value	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

Character	G	H	J	K	L	M	N	P	Q	R	T	U	V	W	X	Y
Value	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31

### 6.4 AIR Provider Number Validation

For other vaccination providers such as Councils, pharmacies and commercial organisations, the check digit routine used is a different routine to the check digit routine used for Medicare Providers. The AIR Provider Number comprises:

1. State Code - is an alpha character in UPPERCASE (see State codes table below)
  - 5 digits –
  - a check-digit (alpha character in UPPERCASE)

Note:

2. Digit 1 is an alpha character (State code)
3. The size of the providerNumber field relates to 'eight' characters

The algorithm used for the Provider Check Digit is:

- (digit 1 \* 3) + This is the State Code digit - see character conversion table below.
- (digit 2 \* 5) +

- (digit 3 \* 8) +
- (digit 4 \* 4) +
- (digit 5 \* 2) +
- (digit 6)
- Divide the calculated sum by 11.

The remainder is allocated an alpha that is the provider check digit (See table below for details).  
The check digits for the resultant remainder are as follows:

Remainder	0	1	2	3	4	5	6	7	8	9	10
Check-Digit	Y	X	W	T	L	K	J	H	F	B	A

## State Identifier

The State Codes and applicable Values are as follows:

State	Code	Value
ACT	A	1
NSW (inc. Norfolk Island)	N	2
VIC	V	3
QLD	Q	4
SA	S	5
WA	W	6
TAS	T	7
NT	Z	8
Cocos Island	C	9
Christmas Island	E	9

## 6.5 Patient Address Locality Checks

### State checks

"NSW, VIC, QLD, ACT, SA, NT, WA, TAS"

+ "N.S.W., V.I.C., Q.L.D., A.C.T., S.A., N.T., W.A., T.A.S.,"

+ "N.S.W, V.I.C, Q.L.D, A.C.T, S.A, N.T, W.A, T.A.S";

### PO BOX checks

{"POST OFFICE", "BOX"},	{" G P.O "},
{" GPO "},	{" G.P O "},
{" GPO "},	{" PO "},
{" GPO. "},	{" P.O. "},
{" G.P.O"},	{" P O "},
{" G P O"},	{" P.O "},
{" GP O "},	{" P O. "},
{" G PO "},	{" PO. "}
{" G P O. "},	{" G.P O. "},

## 7 Appendix B

### 7.1 Example Errors

This is an example of a mandatory element missing from the request.

```
{
  "code": 5,
  "codeType": "DHSEIN",
  "message": "Invalid object: the property 'dateOfService' is missing."
}
```

## Appendix C – HTTP Headers

### 7.2 Inbound Subject Id headers

The following table provides details and examples what values (per Web Service) are required within the following two associated HTTP headers (dhs-subjectId and dhs-subjectIdType).

**Note:** where a field indicates Blank, as this is a mandatory field, a value is expected. Blank is considered an acceptable value.

Web Service Name		Header 1	Header 2	
service	restOperationName	dhs-subjectId	dhs-subjectId Type	Example
AIR Authorisation Access List API 1.0.0	air-authorisation-access-list@1-eigw-post	Blank	Blank	Blank
AIR Identify Individual API 1.1.0	air-immunisation-individual-details@1.1.0-eigw-post	Date of Birth	Date of Birth	18102005
AIR Identify Individual API 1.0.0	air-immunisation-individual-details@1-eigw-post	Date of Birth	Date of Birth	18102005
AIR Individual Additional Vaccine Indicator Add API 1.0.0	air-immunisation-additional-vaccine-indicator-add@1-eigw-post	Date of Birth	Date of Birth	18102005
AIR Individual Additional Vaccine Indicator Remove API 1.0.0	air-immunisation-additional-vaccine-indicator-remove@1-eigw-post	Date of Birth	Date of Birth	18102005
AIR Individual Immunisation History Details API 1.2.0	air-immunisation-history-details@1.2.0-eigw-post	Date of Birth	Date of Birth	18102005
AIR Individual Immunisation History Details API 1.1.0	air-immunisation-history-details@1.1.0-eigw-post	Date of Birth	Date of Birth	18102005
AIR Individual Immunisation History Details API 1.0.0	air-immunisation-history-details@1-eigw-post	Date of Birth	Date of Birth	18102005
AIR Individual Immunisation History Statement API 1.0.0	air-immunisation-history-statement@1-eigw-post	Date of Birth	Date of Birth	18102005
AIR Individual Indigenous Status Update API 1.0.0	air-immunisation-indigenous-status-update@1-eigw-post	Date of Birth	Date of Birth	18102005
AIR Individual Medical Contraindication History API 1.0.0	air-immunisation-med-contraindication-history@1-eigw-post	Date of Birth	Date of Birth	18102005
AIR Individual Medical Contraindication Record API 1.0.0	air-immunisation-med-contraindication-record@1-eigw-post	Date of Birth	Date of Birth	18102005
AIR Individual Natural Immunity History API 1.0.0	air-immunisation-natural-immunity-history@1-eigw-post	Date of Birth	Date of Birth	18102005
AIR Individual Natural Immunity Record API 1.0.0	air-immunisation-natural-immunity-record@1-eigw-post	Date of Birth	Date of Birth	18102005
AIR Individual Vaccine Trial History API 1.0.0	air-immunisation-vaccine-trial-history@1-eigw-post	Date of Birth	Date of Birth	18102005
AIR Planned Catch Up Date API 1.1.0	air-immunisation-schedule-catchup@1.1.0-eigw-post	Date of Birth	Date of Birth	18102005
AIR Planned Catch Up Date API 1.0.0	air-immunisation-schedule-catchup@1-eigw-post	Date of Birth	Date of Birth	18102005
AIR Record Encounter API 1.3.0	air-immunisation-encounter-record@1.3.0-eigw-post	Date of Birth	Date of Birth	18102005
AIR Record Encounter API 1.2.0	air-immunisation-encounter-record@1.2.0-eigw-post	Date of Birth	Date of Birth	18102005
AIR Record Encounter API 1.1.0	air-immunisation-encounter-record@1.1.0-eigw-post	Date of Birth	Date of Birth	18102005



Web Service Name		Header 1	Header 2	
service	restOperationName	dhs-subjectId	dhs-subjectId Type	Example
AIR Record Encounter API 1.0.0	air-immunisation-encounter-record@1-eigw-post	Date of Birth	Date of Birth	18102005
AIR Update Encounter API 1.2.0	air-immunisation-encounter-update@1.2.0-eigw-post	Date of Birth	Date of Birth	18102005
AIR Update Encounter API 1.1.0	air-immunisation-encounter-update@1.1.0-eigw-post	Date of Birth	Date of Birth	18102005
AIR Update Encounter API 1.0.0	air-immunisation-encounter-update@1-eigw-post	Date of Birth	Date of Birth	18102005