

Inland Revenue

## Build Pack: Employment Service

**Date:** 10/06/2021

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## 1 Overview

### 1.1 This solution

Inland Revenue has a suite of digital services available for consumption by our service providers that support efficient, electronic business interactions with Inland Revenue. The Employment Service described in this build pack document forms part of a suite of Gateway Services.

This is a stand-alone document intended to provide the technical details required to support the end-to-end onboarding of Gateway Services. It describes the architecture of the technical solution, schemas, end points, sample payloads to use in non-production environments, and also its interaction with other build packs that cover different aspects of Gateway Services.

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Before continuing, please consult  
[www.ird.govt.nz/digital-service-providers/services-catalogue](http://www.ird.govt.nz/digital-service-providers/services-catalogue)  
for business-level context, use cases and links to relevant policy.  
The information available here explains how to integrate with  
Inland Revenue's services.

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### 1.2 Intended audience

The solution outlined in this document is intended to be used by technical and development staff. It describes the technical interactions, including responses, provided by the Employment Service.

The reader is assumed to have a suitable level of technical knowledge in order to understand the information provided. A range of technical terms and abbreviations are used throughout this document, and while most of these will be understood by the intended readers, a [glossary](#) is provided at the end.

### 1.3 Related services

The following application programming interfaces (APIs) complement this Gateway Service. Instructions on where to find the build packs for these services can be found in [section 4](#) of this document.

#### 1.3.1 Identity and Access Services

The Identity and Access Services (IAS) are used to authenticate access. Authentication tokens will need to be retrieved via IAS prior to making calls to the Employment Service.

This build pack was written using information from version 1.5 of the IAS build pack.

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### 1.3.2 Employment Information Service

The Employment Information Service build pack describes the operations provided under the Employment Information web service, which forms part of the Gateway Services suite. The operations offered by this Service include the ability to submit a return to Inland Revenue for a customer, provide figures to assist in the calculation and display of return information prior to submission, return a status for a particular return and retrieve a previously-submitted return and the values associated to it.

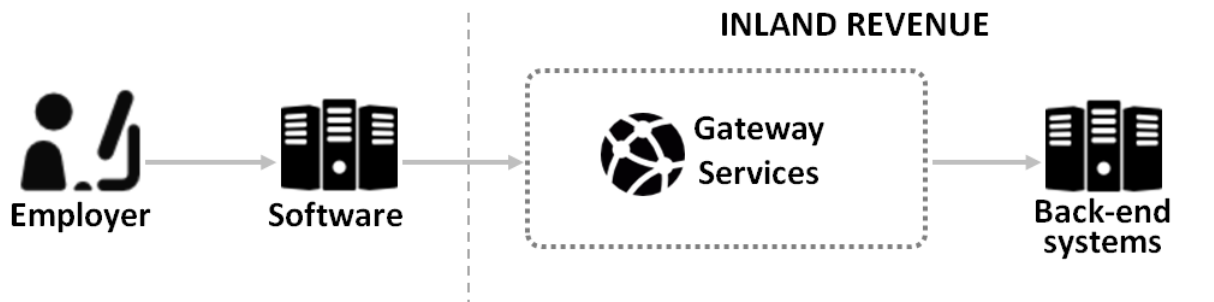
This Employment Service build pack was written using information from version 1 of the Employment Information Service build pack.

## 2 Solution design

### 2.1 Architecture

Inland Revenue is offering a suite of SOAP-based services in order to facilitate interactions with Inland Revenue via software packages. The Gateway Services suite will be used by approved software vendors to facilitate everything from registration activities, filing returns, making payments and other service offerings in order to allow customers to interact with Inland Revenue.

The diagram below illustrates the flow of data to Inland Revenue.



The WSDLs for the Gateway Services define an 'any' XML request and response structure, which then relies on a group of XSDs to define the data structure of those requests and responses. Each request and response type will define a lower, 'wrapper' element. Any malformed XML will be rejected by the Gateway Services prior to any schema validation.

### 2.2 Service scope

The following operations are provided for the Employment Service:

- **Create:** This operation will allow for the creation of an employer/employee relationship, as well as the submission of KS1/KS10 information.
- **Update:** This operation will allow for the updating of an active (unceased) employee/employer relationship, as well as for opting out of KiwiSaver.
- **Terminate:** This operation will be used for the termination (end dating) of an active (unceased) employee/employer relationship.
- **RetrieveList:** This operation can be used to retrieve a list of current employees linked to the requesting employer. (Note: This operation is not available to payroll bureaus.)

### 2.3 Messaging

The Return Service is a SOAP-based web service. All SOAP messages require a SOAP header and a SOAP body containing a structured XML payload. Correct values can be found in the relevant WSDL, the link to which is provided in [section 4](#) of this document.

The Gateway Services allow the consumption of any structured XML payload but will be validated against the Inland Revenue-published XSDs.

This is a late binding validation, performed after authentication has been reviewed. The message structure of these services is a simple request/response. The XML request will be checked for well-formed XML before the schema validation. Responses to these requests will be in XML format as well and will be defined in the same schemas that define the requests. Any XML submissions in the SOAP body that do not meet the provided schemas will not be accepted by the Gateway Services. Incorrect namespaces will also fail validation against the published schemas.

### Example SOAP request structure

```
<soap:Envelope xmlns:soap="http://www.w3.org/2003/05/soap-envelope"
  xmlns:ret="https://services.ird.govt.nz/GWS/Employment/"
  xmlns:emp="https://services.ird.govt.nz/GWS/Employment/:types/CreateRequest"
  xmlns:a="http://www.w3.org/2005/08/addressing">
  <soap:Header>
    <a:Action>https://services.ird.govt.nz/GWS/Employment/Employment/someOperation</a:Action>
  </soap:Header>
  <soap:Body>
    <emp:Create>
      <emp:CreateRequestMsg>
        <cre:CreateRequestWrapper>
          <emp1:createRequest>
            <...request fields...>
          </emp1:createRequest>
        </cre:CreateRequestWrapper>
      </emp:CreateRequestMsg>
    </emp:Create>
  </soap:Body>
</soap:Envelope>
```

### Example SOAP response structure

```
<s:Envelope xmlns:s="http://www.w3.org/2003/05/soap-envelope"
  xmlns:a="http://www.w3.org/2005/08/addressing">
  <s:Header>
    <a:Action s:mustUnderstand="1">
      https://services.ird.govt.nz/GWS/Employment/Employment/CreateResponse
    </a:Action>
  </s:Header>
  <s:Body>
    <CreateResponse xmlns="https://services.ird.govt.nz/GWS/Employment/">
      <CreateResult
        xmlns:b="https://services.ird.govt.nz/GWS/Employment/:types/CreateResponse"
        xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
        <b:CreateResponseWrapper>
          <employmentResponse xmlns="urn:www.ird.govt.nz/GWS:types/Common.v1">
            <statusMessage>
              <statusCode>0</statusCode>
              <errorMessage/>
            </statusMessage>
          </employmentResponse >
        </b:CreateResponseWrapper>
      </CreateResult>
    </CreateResponse>
  </s:Body>
</s:Envelope>
```

## 2.4 Security

### 2.4.1 Information classification

The information exchanged via the Return Service has an information classification of "**IN CONFIDENCE**". The following security standards therefore apply.

### 2.4.2 Transport layer security and certificates

Mutual Transport Layer Security (TLS) is implemented for this service. This requires the use of a publicly-issued X.509 certificate from one of the trusted certificate authorities listed further below in this section. (Note that Inland Revenue does not issue certificates to external vendors for web service security implementations.)

Inland Revenue has the following requirements for accepting public X.509 keys:

- ECDSA (preferred) key length: 384 bits (or RSA key length: 2048 bits)
- Self-signed certificates are not accepted
- Certificates issued by private/internal certificate authorities are not accepted
- The same certificate cannot be used for the Test and Production environments.

Inland Revenue has adopted a trust-based authentication model and will only accept certificates that contain a pre-approved subject common name and have been issued by one of the following root certificate authorities, trusted and approved by Inland Revenue:

- [Amazon](#)
- [Comodo](#)
- [DigiCert](#)
- [Entrust](#)
- [GeoTrust](#)
- [Let's Encrypt](#)
- [Sectigo](#)
- [Thawte](#).

Inland Revenue expects Digital Service Providers to use their Inland Revenue Developer Portal account to create their common name for both Test and Production certificates. Please refer to the [Digital Service Providers](#) pages on the Inland Revenue website or contact your Inland Revenue onboarding representative at [GatewayServices@ird.govt.nz](mailto:GatewayServices@ird.govt.nz) for further details.

### 2.4.3 Ciphers

While Inland Revenue currently supports TLS1.2, it is migrating to TLS1.3 which specifies a much smaller and more prescriptive suite of ciphers. As Inland Revenue's security gateways do not currently support the CCM mode (*counter with cipher block chaining message authentication code*) of operation, only the following ciphers will be supported over TLS1.3:

Status	TLS1.3 ciphers
<b>Supported now and in the future</b>	<ul style="list-style-type: none"><li>• TLS_AES_128_GCM_SHA256</li><li>• TLS_AES_256_GCM_SHA384</li><li>• TLS_CHACHA20_POLY1305_SHA256</li></ul>

The following TLS1.2 ciphers are currently supported but some will be deprecated as below:

Status	TLS1.2 ciphers
<b>Supported now and in future</b>	<ul style="list-style-type: none"> <li>• TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384</li> <li>• TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256</li> </ul>
<b>Supported now but will be deprecated on 31 March 2022</b>	<ul style="list-style-type: none"> <li>• TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA</li> <li>• TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA</li> <li>• TLS_RSA_WITH_AES_128_CBC_SHA</li> <li>• TLS_RSA_WITH_AES_256_CBC_SHA</li> <li>• TLS_DHE_RSA_WITH_AES_128_CBC_SHA</li> <li>• TLS_DHE_RSA_WITH_AES_128_CBC_SHA256</li> <li>• TLS_DHE_RSA_WITH_AES_256_CBC_SHA</li> <li>• TLS_DHE_RSA_WITH_AES_256_CBC_SHA256</li> <li>• TLS_DHE_RSA_WITH_AES_128_GCM_SHA256</li> <li>• TLS_DHE_RSA_WITH_AES_256_GCM_SHA384</li> </ul>
<b>Supported now but will be deprecated on 31 December 2022</b>	<ul style="list-style-type: none"> <li>• TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA256</li> <li>• TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA384</li> <li>• TLS_RSA_WITH_AES_128_CBC_SHA256</li> <li>• TLS_RSA_WITH_AES_256_CBC_SHA256</li> <li>• TLS_RSA_WITH_AES_128_GCM_SHA256</li> <li>• TLS_RSA_WITH_AES_256_GCM_SHA384</li> </ul>

#### 2.4.4 End points

There are two end points, which are summarised in the bullet points below (the table immediately afterwards provides more detail):

1. There is an end point to which service providers' centralised **cloud** locations can connect. This will require X.509 certificates for mutual TLS with an agreed common name, however certificates no longer need to be exchanged with Inland Revenue. On the cloud end point, Inland Revenue has controls to shield service providers from issues caused by heavy usage from other providers.
2. For service providers connecting from **desktops/native apps** that are unable to securely store certificates and access tokens. There is a separate end point that does not use mutual TLS and therefore does not require certificates. On the desktop end point, Inland Revenue has less ability to shield consumers of the service from heavy usage by others.



	End point for cloud-based connections	End point for desktop connections
<b>Purpose</b>	<ul style="list-style-type: none"> <li>Primary preferred end point to connect to from service providers for Gateway Services</li> </ul>	<ul style="list-style-type: none"> <li>Additional transitory end point provided to facilitate connecting from desktops which might be high volumes of sources addresses, transient DHCP addresses, not realistically associated with client-side TLS certificates, not individually onboarded to set up certificate trust</li> </ul>
<b>Client application type</b>	<ul style="list-style-type: none"> <li>Cloud applications</li> </ul>	<ul style="list-style-type: none"> <li>Desktop/native applications</li> <li>For connecting from multiple decentralised clients</li> </ul>
<b>Constraints</b>	<ul style="list-style-type: none"> <li>Only for source locations with client-side TLS certificates</li> <li>On the cloud end point Inland Revenue has controls to shield service providers from issues caused by heavy usage from other providers</li> </ul>	<ul style="list-style-type: none"> <li>Less scalable</li> <li>Subject to tighter security controls</li> <li>On the desktop end point Inland Revenue has less ability to shield consumers of the service from heavy usage by others</li> <li>OAuth2 refresh tokens will not be offered to desktop clients</li> </ul>
<b>Mutual TLS</b>	<ul style="list-style-type: none"> <li>Inland Revenue explicitly trusts the certificate the service provider associates with the TLS connection as client for Mutual TLS connections and uses it to identify the service provider in conjunction with the web service identification below</li> </ul>	<ul style="list-style-type: none"> <li>Server-side certificates only</li> </ul>
<b>Minimum TLS version</b>	<ul style="list-style-type: none"> <li>1.2</li> </ul>	<ul style="list-style-type: none"> <li>1.2</li> </ul>
<b>URL</b>	<ul style="list-style-type: none"> <li>Contains .../gateway/..</li> </ul>	<ul style="list-style-type: none"> <li>Contains .../gateway2/..</li> </ul>
<b>Port</b>	<ul style="list-style-type: none"> <li>4046</li> </ul>	<ul style="list-style-type: none"> <li>443 (Default https port)</li> </ul>
<b>Web service consumer identification</b>	<ul style="list-style-type: none"> <li>To be identified in web service calls—each cloud application will be given client_id/client_secret credentials during onboarding to allow it to call this end point</li> </ul>	<ul style="list-style-type: none"> <li>Desktop clients will be given client_id/client_secret credentials in the same manner as cloud application clients. However, desktop clients will not be able to redeem refresh tokens to obtain a new OAuth token when it expires.</li> </ul>
<b>Firewalling in production</b>	<ul style="list-style-type: none"> <li>No IP address restrictions</li> <li>Access limited by certificate enrolment</li> </ul>	<ul style="list-style-type: none"> <li>No IP address restrictions</li> </ul>

	End point for cloud-based connections	End point for desktop connections
<b>Firewalling in non-production environments</b>	<ul style="list-style-type: none"> <li>No IP address restrictions</li> <li>Access limited by certificate enrolment</li> </ul>	<ul style="list-style-type: none"> <li>Firewalled—IP whitelisting needed</li> </ul>

#### 2.4.5 Authentication and authorisation

Authentication and authorisation are the mechanisms by which the consumer of the service is identified, and their access rights enforced. The Return Service uses the standard OAuth2 authorisation code flow. For instructions on how to acquire an OAuth access token, and the properties of this token (eg its expiry and refresh parameters) please refer to the Identity and Access build pack.

Authentication and authorisation are described in terms of two parties:

- **Consumer**—this is the party under whose identity the interaction is being transacted (the party who has been authenticated)
- **Resource**—this is the data entity/object being accessed (eg created, read, updated or deleted) via the service.

When using OAuth, the consumer is authenticated using their Inland Revenue myIR credentials and their access is authorised using the same access rights as myIR. For example, if a myIR user does not have permission to file a return online, they will not be able to file a return via Gateway Services either. This applies to users who are granted access as staff inside an organisation or as staff in a tax agency.

The following steps are applied by the Gateway Services when authorising access by the consumer to a resource:

1. If the consumer is the resource owner then access to the resource is authorised (ie the consumer is authorised to manage their own affairs).
2. Otherwise, if the consumer's myIR credential has been granted access to the resource, with the appropriate level of access, then access is authorised.
3. Otherwise, if the consumer is an intermediary of an appropriate type who has been delegated access by being linked to the resource, with the appropriate level of access, then access is authorised.
4. Otherwise access is denied.

### 3 Operations

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**IMPORTANT**

The schemas and WSDLs listed here are subject to change.

For the authoritative definitions, please visit

[www.ird.govt.nz/digital-service-providers/services-catalogue](http://www.ird.govt.nz/digital-service-providers/services-catalogue)

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The structures of all Gateway Service operations are intended to produce the most efficient requests and responses. Any common structures and fields will be used across many schemas and tax types through an intentional inheritance method. The section below describes the structure of each operation and the scenarios in which certain fields will be used in XML requests and responses.

This section contains schema aliases:

- Cmn: Common.xsd
- Emp: Employment.xsd

The response structure for all employment requests will use the two default service response fields: **statusCode** and **errorMessage**. The identifier for this XML is **employmentResponse** in the Employment namespace.

For example:

```
<employmentResponse xmlns="urn:www.ird.govt.nz/GWS:types/Employment">
  <statusMessage xmlns="urn:www.ird.govt.nz/GWS:types/Common.v1">
    <statusCode>0</statusCode>
    <errorMessage>Success</errorMessage>
  </statusMessage>
</employmentResponse>
```

All operations for the Employment Service will contain three standard header fields: **softwareProviderData** and **identifier** and **accountType**.

The **identifier** field is common across all Gateway Services but refers to different parties in different services. In all cases it is the party with delegated permissions to whom an OAuth token is provided. If the value cannot be resolved to a known context, or if it can but the provided OAuth token does not have the necessary delegated permissions then the error code 4 "unauthorised delegation" is returned. For this Employment Service this will always be the account IRD number of the employer's EMP account.

For example:

```
<cmn:softwareProviderData>
  <cmn:softwareProvider>SoftwareProvider</cmn:softwareProvider>
  <cmn:softwarePlatform>SoftwarePlatform</cmn:softwarePlatform>
  <cmn:softwareRelease>v1</cmn:softwareRelease>
</cmn:softwareProviderData>

<cmn:identifier IdentifierValueType="ACCIRD">012345678</cmn:identifier>
<cmn:accountType>PSO</cmn:accountType>
```

Field	Description
<b>softwareProvider</b>	The company that developed the software
<b>softwarePlatform</b>	The field value will be provided by Inland Revenue during the onboarding process
<b>softwareRelease</b>	The version of the software package
<b>IdentifierValueType</b>	The ID type being submitted. For the Employment Service this value will be ACCIRD.
<b>Identifier</b>	The value submitted for this field should contain only digits, with no dashes. IRD Numbers that are eight digits must be padded with a leading zero.
<b>AccountType</b>	The account type being submitted is PSO

Proper use:

- All softwareProviderData fields will need to be the same as that which is provided to Inland Revenue at the time of onboarding
- The identifier is that of the taxpayer on whose behalf the operations are being performed.

Example scenario:

- Employer with IRD 898989898 submits for employee IRD 121212121
  - Third party calls /Employment/Create/ with  
 <cmn:identifier IdentifierValueType="ACCIRD">898989898 </cmn:identifier>  
 <cmn:**accountType**>PSO</cmn:accountType>

### 3.1 Create

*Create* enables an employer to submit information to Inland Revenue in regard to a new employee; employee IRD number, employee name, EMS name, tax code, employment start date, employment finish date, employee date of birth, employee contact details, KS1 KiwiSaver enrolment information.

NOTE: If an employee meets the legislative requirements to opt out of KiwiSaver and wishes to do so and the employer has not yet notified Inland Revenue of this new employee, then:

- A *Create* request must be submitted AND
- An *Update* request must also be submitted, including the following fields:
  - optedOut
  - employeeBankAccountNumber
  - accountHolderName
  - OptedOutSignatureDate

In this scenario, it is possible that the *Create* request would not have had time to process and become effective before the *Update* request is sent. In this case, the *Update* request would receive an error response code indicating the *Create* request has not yet processed.

```

<emp1:createRequest>
  <emp1:header>
    <com:softwareProviderData>
      <com:softwareProvider></com:softwareProvider>
      <com:softwarePlatform></com:softwarePlatform>
      <com:softwareRelease></com:softwareRelease>
    </com:softwareProviderData>
    <com:identifier IdentifierValueType=""></com:identifier>
    <com:accountType></com:accountType>
  </emp1:header>
  <emp1:createBody>
    <emp1:employeeIRD></emp1:employeeIRD>
    <emp1:employeeName>
      <com:nameTitle></com:nameTitle>
      <com:nameFirst></com:nameFirst>
      <com:nameSurname></com:nameSurname>
      <com:nameMiddle></com:nameMiddle>
    </emp1:employeeName>
    <emp1:employeeNameOnEILine></emp1:employeeNameOnEILine>
    <!--1 to 4 repetitions-->
    <emp1:taxCode></emp1:taxCode>
    <emp1:employmentStartDate></emp1:employmentStartDate>
    <emp1:employmentFinishDate></emp1:employmentFinishDate>
    <emp1:employeeDateOfBirth></emp1:employeeDateOfBirth>
    <emp1:employeeAddress>
      <com:streetAddress>
        <com:streetNumber></com:streetNumber>
        <com:streetName></com:streetName>
      </com:streetAddress>
      <!--Optional:-->
      <com:unit>
        <com:type></com:type>
        <com:number></com:number>
      </com:unit>
      <com:townCity></com:townCity>
      <com:postCode></com:postCode>
      <com:country>NZ</com:country>
    </emp1:employeeAddress>
    <emp1:employeeEmailAddress></emp1:employeeEmailAddress>
    <emp1:employeeMobilePhoneNumber>
      <com:phoneType></com:phoneType>
      <com:country></com:country>
      <com:areaCode></com:areaCode>
      <com:number></com:number>
      <!--Optional:-->
      <com:extension></com:extension>
    </emp1:employeeMobilePhoneNumber>
    <!--Optional:-->
    <emp1:employeeDayPhoneNumber>
      <com:phoneType></com:phoneType>
      <com:country></com:country>
      <com:areaCode></com:areaCode>
      <com:number></com:number>
      <!--Optional:-->
      <com:extension>?</com:extension>
    </emp1:employeeDayPhoneNumber>
    <emp1:kiwiSaverStatus></emp1:kiwiSaverStatus>
    <emp1:employeeKiwiSaverEligibility></emp1:employeeKiwiSaverEligibility>
  </emp1:createBody>
</emp1:createRequest>
  
```

Field	Required	Description
<b>identifier</b>	Required	The value submitted for this field should contain only digits, with no dashes. IRD Numbers that are eight digits must be padded with a leading zero.
<b>accountType</b>	Required	This value will need to be 'PSO' to represent the Employment account
<b>employeeIRD</b>	Required	If the employee doesn't have an IRD number, enter all zeros
<b>employeeName</b>	Required	Full employee name Title (optional), First Name (mandatory), Middle Name (optional), Surname (mandatory for individuals).
<b>employeeNameOnEILine</b>	Required	This is the name (up to 20 characters) provided on the EI return
<b>taxCode</b>	Required	Multiple tax codes can be added in one submission
<b>employmentStartDate</b>	Required	Format: YYYY-MM-DD
<b>employmentFinishDate</b>	Optional	If future Finish Date is known, place here and future termination will not be needed
<b>employeeDateOfBirth</b>	Optional	Format: YYYY-MM-DD
<b>employeeAddress</b>	Optional	Open address to allow for foreign addresses. The FreeFormAddress choice in the OpenAddressType is now supported for a limited time. This should only be used as a temporary solution for single field address data. Required when submitting a KS1 by including the employeeKiwisaverEligibility field (below).
<b>employeeEmailAddress</b>	Optional	Employee email address
<b>employeeMobilePhoneNumber</b>	Optional	Standard mobile field
<b>employeeDayPhoneNumber</b>	Optional	Standard phone field
<b>kiwiSaverStatus</b>	Required	Employee KiwiSaver status: <ul style="list-style-type: none"> <li>• AK for KiwiSaver Member</li> <li>• CH for contribution holiday</li> <li>• OT for opted out</li> <li>• NM for Not currently a KiwiSaver Members</li> <li>• NK for not eligible for KiwiSaver</li> </ul>
<b>employeeKiwiSaverEligibility</b>	Optional	Either NE for New Employee or EE for Existing Employee. Note that including this field is the equivalent of submitting a KS1 form.

## 3.2 Update

### IMPORTANT NOTE

When the Update operation is carried out, it completely replaces ALL the existing information on the employment relationship.

This means that where data has previously been supplied for a field, a subsequent Update with no data for that same field will result in the data being overwritten (removed).

For example, employee address information previously supplied would be overwritten if a subsequent Update operation updating that employee's tax code did not include address information.

Therefore, any data previously provided to Inland Revenue for a field will need to be included in all subsequent Update operations for it to be retained.

#### For example:

If employee IRD 123-456-789 already has tax code M SL and tax code STC needs to be added. An update will need to include both M SL and STC.

```
<emp1:updateRequest>
  <emp1:header>
    <com:softwareProviderData>
      <com:softwareProvider></com:softwareProvider>
      <com:softwarePlatform></com:softwarePlatform>
      <com:softwareRelease></com:softwareRelease>
    </com:softwareProviderData>
    <com:identifier IdentifierValueType=""></com:identifier>
    <com:accountType></com:accountType>
  </emp1:header>
  <emp1:employeeIdentifier>
    <emp1:employeeIRD></emp1:employeeIRD>
    <emp1:employeeNameOnEILine></emp1:employeeNameOnEILine>
    <!--Optional:-->
    <emp1:employeeDateOfBirth></emp1:employeeDateOfBirth>
    <!--Optional:-->
    <emp1:employmentStartDate></emp1:employmentStartDate>
  </emp1:employeeIdentifier>
  <emp1:updateBody>
    <emp1:employeeIRD></emp1:employeeIRD>
    <emp1:employeeName>
      <com:nameTitle></com:nameTitle>
      <com:nameFirst></com:nameFirst>
      <com:nameSurname></com:nameSurname>
      <com:nameMiddle></com:nameMiddle>
    </emp1:employeeName>
    <emp1:employeeNameOnEILine></emp1:employeeNameOnEILine>
    <emp1:employmentStartDate></emp1:employmentStartDate>
    <!--Optional:-->
    <emp1:employeeDateOfBirth></emp1:employeeDateOfBirth>
    <!--1 to 4 repetitions:-->
    <emp1:taxCode></emp1:taxCode>
    <!--Optional:-->
```

```

<emp1:employeeAddress>
  <com:streetAddress>
    <com:streetNumber></com:streetNumber>
    <com:streetName></com:streetName>
  </com:streetAddress>
  <!--Optional:-->
  <com:unit>
    <com:type></com:type>
    <com:number></com:number>
  </com:unit>
  <com:townCity></com:townCity>
  <com:postCode></com:postCode>
  <com:country>NZL</com:country>
</emp1:employeeAddress>
<!--Optional:-->
<emp1:employeeEmailAddress?></emp1:employeeEmailAddress>
<!--Optional:-->
<emp1:employeeMobilePhoneNumber>
  <com:phoneType></com:phoneType>
  <com:country></com:country>
  <com:areaCode></com:areaCode>
  <com:number></com:number>
  <!--Optional:-->
  <com:extension></com:extension>
</emp1:employeeMobilePhoneNumber>
<!--Optional:-->
<emp1:employeeDayPhoneNumber>
  <com:phoneType></com:phoneType>
  <com:country></com:country>
  <com:areaCode></com:areaCode>
  <com:number></com:number>
  <!--Optional:-->
  <com:extension></com:extension>
</emp1:employeeDayPhoneNumber>
<emp1:kiwiSaverStatus></emp1:kiwiSaverStatus>
<!--Optional:-->
<emp1:employeeKiwiSaverEligibility></emp1:employeeKiwiSaverEligibility>
<!--Optional:-->
<emp1:optedOut></emp1:optedOut>
<!--Optional:-->
<emp1:employeeBankAccountNumber>
  <!--You have a CHOICE of the next 2 items at this level-->
  <com:nzBankStandard>
    <com:bank></com:bank>
    <com:branch></com:branch>
    <com:account></com:account>
    <com:suffix></com:suffix>
  </com:nzBankStandard>
  <com:nzBankCreditUnion>
    <com:bank></com:bank>
    <com:branch></com:branch>
    <com:account></com:account>
    <com:suffix></com:suffix>
  <!--Optional:-->
  <com:referenceNumber></com:referenceNumber>
  </com:nzBankCreditUnion>
</emp1:employeeBankAccountNumber>
<!--Optional:-->

<emp1:accountHolderName>
  <com:nameTitle></com:nameTitle>
  <com:nameFirst></com:nameFirst>
  <com:nameSurname></com:nameSurname>

```



```

    </emp1:accountHolderName>
    <!--Optional:-->
    <emp1:optedOutSignatureDate></emp1:optedOutSignatureDate>
    <emp1:validRelationship></emp1:validRelationship>
  </emp1:updateBody>
</emp1:updateRequest>
  
```

Field	Requirement	Description
<b>identifier</b>	Required	The value submitted for this field should contain only digits, with no dashes. IRD Numbers that are eight digits must be padded with a leading zero.
<b>accountType</b>	Required	This value will need to be 'PSO' to represent the Employment account
<b>employeeIdentifier</b>	Required	<p>Four fields (employeeIRD, employeeNameOnEILine, employeeDateOfBirth, employmentStartDate) used to identify the record which is to be updated.</p> <p>employeeIRD and employeeNameOnEILine are required fields that must match Inland Revenue's records in order to identify the appropriate employee.</p> <p>employeeDateOfBirth and employmentStartDate are optional and will only be used if they are submitted in the payload.</p>
<b>employeeIRD</b>	Required	If the employee doesn't have an IRD number, enter all zeros
<b>employeeName</b>	Required	Full employee name Title (optional), First Name (mandatory), Middle Name (optional), Surname (mandatory for individuals).
<b>employeeNameOnEILine</b>	Required	This is the name (up to 20 characters) provided on the EI return
<b>employmentStartDate</b>	See note on right	Format: YYYY-MM-DD <b>NOTE:</b> Required for updateBody Optional for EmployeeIdentifierType
<b>employeeDateOfBirth</b>	Optional	Format: YYYY-MM-DD
<b>taxCode</b>	Optional	Multiple tax codes can be added in one submission

Field	Requirement	Description
<b>employeeAddress</b>	Optional	<p>Open address to allow for foreign addresses.</p> <p>The FreeFormAddress choice in the OpenAddressType is now supported for a limited time. This should only be used as a temporary solution for single field address data.</p> <p>Required when submitting a KS1 or KS10 by including the employeeKiwisaverEligibility field (below).</p>
<b>employeeEmailAddress</b>	Optional	Employee email address for KS form
<b>employeeMobilePhoneNumber</b>	Optional	<p>Standard mobile field for KS form. Contains phone type, country code (numeric), area code (three-digit numeric, beginning with 0), phone number (numeric) and extension (numeric).</p> <p>Note that if the person is opting out of KiwiSaver, the phone number provided must be a valid NZ number, including area code and phone number.</p>
<b>employeeDayPhoneNumber</b>	Optional	<p>Standard phone field for KS form. Contains phone type, country code (numeric), area code (three-digit numeric, beginning with 0), phone number (numeric) and extension (numeric).</p> <p>Note that if the person is opting out of KiwiSaver, the phone number provided must be a valid NZ number, including area code and phone number.</p>
<b>kiwiSaverStatus</b>	Required	<p>Employee KiwiSaver status:</p> <ul style="list-style-type: none"> <li>• AK for KiwiSaver member</li> <li>• CH for Contribution Holiday</li> <li>• OT for Opted Out</li> <li>• NM for Not currently a KiwiSaver Member</li> <li>• NK for Not Eligible</li> </ul>
<b>employeeKiwisaverEligibility</b>	Optional	<p>Either NE for New Employee or EE for Existing Employee.</p> <p>Note that including this field will trigger the submission of a KS1 form unless the optedOut field (below) is set to true which will trigger the submission of a KS10.</p>

Field	Requirement	Description
<b>optedOut</b>	Optional	Setting this to 'true' is the equivalent of submitting a KS10 form
<b>employeeBankAccountNumber</b>	Optional	Only used for KiwiSaver opt-out but not required
<b>accountHolderName</b>	Optional	Standard Name Field for KS form
<b>optedOutSignatureDate</b>	Optional	Standard Date Field for KS form
<b>validRelationship</b>	Required	Indicates the validity of this employment relationship. If the record was created on accident, it must be invalidated

### 3.3 Terminate

*Terminate* enables an employer to submit information to Inland Revenue in regard to a departing employee—employee IRD number, employee name, employee date of birth, employee end date.

Once a termination date is known:

```

<emp1:terminateRequest>
  <emp1:header>
    <com:softwareProviderData>
      <com:softwareProvider></com:softwareProvider>
      <com:softwarePlatform></com:softwarePlatform>
      <com:softwareRelease></com:softwareRelease>
    </com:softwareProviderData>
    <com:identifier IdentifierValueType=""></com:identifier>
    <com:accountType></com:accountType>
  </emp1:header>

  <emp1:employeeIdentifier>
    <emp1:employeeIRD></emp1:employeeIRD>
    <emp1:employeeNameOnEILine></emp1:employeeNameOnEILine>
    <emp1:employeeDateOfBirth></emp1:employeeDateOfBirth>
    <emp1:employmentStartDate></emp1:employmentStartDate>
  </emp1:employeeIdentifier>
  <emp1:terminateBody>
    <emp1:employmentFinishDate></emp1:employmentFinishDate>
  </emp1:terminateBody>
</emp1:terminateRequest>

```

Field	Required	Description
<b>identifier</b>	Required	The value submitted for this field should contain only digits, with no dashes. IRD Numbers that are eight digits must be padded with a leading zero.
<b>accountType</b>	Required	This value will need to be 'PSO' to represent the Employment account

Field	Required	Description
<b>employeeIdentifier</b>	Required	Four fields (employeeIRD, employeeNameOnEILine, employeeDateOfBirth, employmentStartDate) used to identify the record which is to be updated. employeeIRD and employeeNameOnEILine are required fields that must match Inland Revenue's records in order to identify the appropriate employee. employeeDateOfBirth and employmentStartDate are optional and will only be used if they are submitted in the payload.
<b>employmentFinishDate</b>	Required	Format: YYYY-MM-DD

### 3.4 RetrieveList

This can be used to retrieve a full list of current and ceased employees (by not including an employee IRD number in the request) or retrieve one individual employee.

**Note:** This operation is not available to Payroll Bureaus.

#### 3.4.1 Request

```

<emp1:retrieveListRequest>
  <emp1:header>
    <com:softwareProviderData>
      <com:softwareProvider></com:softwareProvider>
      <com:softwarePlatform></com:softwarePlatform>
      <com:softwareRelease></com:softwareRelease>
    </com:softwareProviderData>
    <com:identifier IdentifierValueType=""></com:identifier>
    <com:accountType></com:accountType>
  </emp1:header>
  <emp1:retrieveListBody>
    <emp1:employeeIRD></emp1:employeeIRD>
  </emp1:retrieveListBody>
</emp1:retrieveListRequest>

```

Field	Required	Description
<b>identifier</b>	Required	The value submitted for this field should contain only digits, with no dashes. IRD Numbers that are eight digits must be padded with a leading zero.
<b>accountType</b>	Required	This value will need to be 'PSO' to represent the Employment account
<b>employeeIRD</b>	Optional	Enter an employee's IRD number to retrieve only records for that employee. Omitting this field will request every employee linked to the Employer identified in the header.

### 3.4.2 Response

```
<emp1:retrieveListResponse>
  <statusMessage xmlns="urn:www.ird.govt.nz/GWS:types/Common.v1">
    <statusCode></statusCode>
    <errorMessage></errorMessage>
  </statusMessage>
  <responseBody>
    <emp1:listReponse>
      <emp1:employee>
        <emp1:employeeIRD></emp1:employeeIRD>
        <emp1:employeeName></emp1:employeeName>
        <emp1:employeeNameOnEILine> </emp1:employeeNameOnEILine>
        <emp1:taxCode></emp1:taxCode>
        <emp1:employeeDateOfBirth></emp1:employeeDateOfBirth>
        <emp1:employmentStartDate></emp1:employmentStartDate>
        <emp1:employmentFinishDate></emp1:employmentFinishDate>
      </emp1:employee>
      <emp1:employee>
        <emp1:employeeIRD></emp1:employeeIRD>
        <emp1:employeeName></emp1:employeeName>
        <emp1:employeeNameOnEILine></emp1:employeeNameOnEILine>
        <emp1:taxCode></emp1:taxCode>
        <emp1:employeeDateOfBirth></emp1:employeeDateOfBirth>
        <emp1:employmentStartDate></emp1:employmentStartDate>
        <emp1:employmentFinishDate></emp1:employmentFinishDate>
      </emp1:employee>
      <emp1:employee>
        <emp1:employeeIRD></emp1:employeeIRD>
        <emp1:employeeName></emp1:employeeName>
        <emp1:employeeNameOnEILine></emp1:employeeNameOnEILine>
        <emp1:taxCode></emp1:taxCode>
        <emp1:employeeDateOfBirth></emp1:employeeDateOfBirth>
        <emp1:employmentStartDate></emp1:employmentStartDate>
        <emp1:employmentFinishDate></emp1:employmentFinishDate>
      </emp1:employee>
    </emp1:listResponse>
  </emp1:responseBody>
</emp1:retrieveListResponse>
```

Field	Required	Description
<b>employeeIRD</b>	Required	If the employee doesn't have an IRD number, enter all zeros
<b>employeeName</b>	Required	Full employee name Title (optional), First Name (optional), Middle Name (optional), Surname (optional)
<b>employeeNameOnEILine</b>	Required	This is the name (up to 20 characters) provided on the EI return
<b>taxCode</b>	Optional	Multiple tax codes can be added in one response
<b>employeeDateOfBirth</b>	Optional	Format: YYYY-MM-DD
<b>employmentStartDate</b>	Optional	Format: YYYY-MM-DD
<b>employmentFinishDate</b>	Optional	Format: YYYY-MM-DD

## 4 Additional development resources

Current environment information for this service—including the end points for each environment, schemas and WSDLs—is available within the relevant Software Development Kit (SDK).

To access the SDK, do one of the following:

- Go to <https://github.com/InlandRevenue> and select this service
- Go to <https://developerportal.ird.govt.nz> and click the link to the SDK within the Gateway Service documentation (please register first).

### 4.1 Schemas

The Employment Service imports the Common.v2.xsd which has some data types specific to Inland Revenue. This Common.v2.xsd will be used in other Gateway Services outside of the /Employment/ namespace so it must be kept up-to-date, without numerous redundant versions remaining.

*See instructions at beginning of section 4 for where to find schemas for this service.*

### 4.2 WSDLs

The Employment Gateway Service has one WSDL, which has a target namespace of <https://services.ird.govt.nz/GWS/Employment> and can be found at <https://services.ird.govt.nz:4046/gateway/gws/Employment/?singleWsdI>

**Note:** *The production URL above will not work until you have onboarded with Inland Revenue.*

All WSDL messages follow this naming convention:

Employment\_<operation>\_InputMessage or Employment\_<operation>\_OutputMessage.

```
<wsdl:portType name="Employment">
  <wsdl:operation name="Create">
  <wsdl:operation name="Update">
  <wsdl:operation name="Terminate">
  <wsdl:operation name="RetrieveList">
    <wsdl:service name=" Employment">
```

A development version of the WSDL is provided with this build pack. For easier WSDL consumption, the <xs:any> structure has been replaced with a reference to the corresponding element in the Employment.xsd. This will allow any tools that consume the WSDL to automatically pull in the data structures from the XSD. To use this, ensure the WSDL provided by Inland Revenue is in the same directory as Common.xsd and Employment.xsd. See *beginning of section 4 for instructions on where to find WSDLs for this service.*

## 5 Response codes

The response message from the Gateway Services will always include a status code and status message. These values will describe any successes or failures of a web service call. Following the status message will be the responseBody, which will return the operations response.

**NOTE:** These response codes are subject to change and additional codes may be added from time to time. Software consuming this service **must** be able to account for additional responses that may not have been specifically coded.

### 5.1 Generic Gateway response status codes

This service applies account-level validation and some of the codes below reflect this.

Standard codes	Standard message	Description
-1	An unknown error has occurred	This error will be logged by the Gateway Services and evaluated the next business day
0	(Success)	This resembles a successful web service call
1	Authentication failure	Authentication failure means the token provided is not a valid token
2	Missing authentication token(s)	No OAuth token in HTTP header
3	Unauthorised access	The logon making the call does not have access to make the request on behalf of the client or agency. Access could not be confirmed due to OAuth token validation failing.
4	Unauthorised delegation	<p>Access is not permitted for the requester to perform this operation for the submitted identifier. This code will be returned in any of these situations:</p> <ul style="list-style-type: none"> <li>The submitted cmn:identifier has an invalid value</li> <li>The identifier type (IdentifierValueType attribute on cmn:identifier) supplied is invalid</li> <li>The AccountType supplied does not exist for that identifier</li> <li>All the values above are valid but the provided OAuth token does not have delegated access to that Customer or Account</li> </ul>
5	Unauthorised vendor	The vendor provided is not authorised to use these suite of services

Standard codes	Standard message	Description
<b>7</b>	Account type not supported	Queries on Account types not supported in any Gateway Services web services will return this code. For April 2018 this will be any account type other than AIL, AIP, BPA, MPO, CRS, DWT, FAT, FBT, GMD, GSD, GST, IPS, NRT, PIE, PRS, PSO, EMP, RLT and RWT.
<b>20</b>	Unrecognised XML request	The XML submitted is not recognisable and no schema can be determined
<b>21</b>	XML request failed validation	The XML structure did not meet the definition laid out by the schemas published by Inland Revenue
<b>(none)</b>	(non xml)	In some scenarios where the request message does not have a well-formed XML structure or is not valid or does not adhere to the SOAP protocol formats, the framework generates a parsing exception that is not wrapped in XML nor has a response status code.
<b>(none)</b>	(SOAP fault) UnAuthorised	An unexpected technical fault has been detected. Depending on the context (eg if an online user is waiting), try the request again after at least five seconds. If the fault recurs then please contact <a href="mailto:GatewayServices@ird.govt.nz">GatewayServices@ird.govt.nz</a> .



## 5.2 Response codes specific to Employment Service

Standard codes	Standard message	Description
<b>100</b>	Could not extract data from XML payload	The XML structure passes schema validation, but the data is not valid
<b>101</b>	The provided information did not match with any employment relationship	The employment relationship that is attempting to be changed does not exist
<b>103</b>	The provided IRD number was invalid	The provided IRD number was invalid
<b>104</b>	The specified account has no employees	The specified account has no employees
<b>105</b>	The specified employer IRD could not be linked to an EMP account	The specified employer IRD could not be linked to a EMP account
<b>106</b>	A relationship between this account and employee IRD already exists	A relationship between this account and employee IRD already exists
<b>107</b>	The cease date cannot be before the commence date	The cease date cannot be before the commence date
<b>108</b>	A provided tax code was invalid	A provided tax code was invalid
<b>109</b>	Two primary tax codes submitted for one person	Two primary tax codes submitted for one person
<b>110</b>	KiwiSaver eligibility should be omitted when opting out	KiwiSaver eligibility should be omitted when opting out
<b>111</b>	A Bank Account is required when a Bank Account Holder Name is provided	A Bank Account Holder Name was submitted without a Bank Account
<b>112</b>	A Bank Account Holder Name is required when a Bank Account is provided	A Bank Account was submitted without a Bank Account Holder Name
<b>113</b>	Opting out for KiwiSaver requires an opted out signature date	Opting out for KiwiSaver requires an opted out signature date
<b>114</b>	Opting out for a KiwiSaver requires employee address information	Street address, city and post code are all required when opting out
<b>115</b>	Opting in for KiwiSaver expects bank account to be omitted	Opting in for KiwiSaver expects bank account to be omitted
<b>116</b>	Opting in for KiwiSaver expects bank account holder to be omitted	Opting In for KiwiSaver expects bank account holder to be omitted
<b>117</b>	Opting in for KiwiSaver expects the opted out signature date to be omitted	Opting In for KiwiSaver expects the opted out signature date to be omitted
<b>118</b>	Employee cannot opt out of KiwiSaver during their first 14 days of employment	Employee cannot opt out of KiwiSaver during their first 14 days of employment
<b>119</b>	This employee has not been	Employee cannot be updated until after

Standard codes	Standard message	Description
	created yet, because the associated create request hasn't been processed	the create request has been processed
<b>120</b>	This employee is locked for processing, because there is a request to update this record, but it hasn't processed yet	Employee cannot be updated until the existing update requests have been processed
<b>121</b>	The provided employee IRD number is not valid	The provided employee IRD number is not valid
<b>122</b>	The provided submission created a request in error, please review payload	The provided submission created a request in error, please review payload
<b>123</b>	There already exists a request to create this employee, but it hasn't processed yet	There already exists a request to create this employee, but it hasn't processed yet
<b>124</b>	The StartDate and/or FinishDate overlaps with multiple other records	The StartDate and/or FinishDate overlaps with multiple other records
<b>138</b>	Employee must not have an 'SL' type tax code, as they have no student loan, or they have a student loan repayment exemption	Employee must not have an 'SL' type tax code, as they have no student loan, or they have a student loan repayment exemption.
<b>139</b>	Employee must have an 'SL' type tax code, as they have a student loan and do not have student loan repayment exemption	Employee must have an 'SL' type tax code, as they have a student loan and do not have student loan repayment exemption.
<b>140</b>	employeeDateOfBirth cannot be in the future	When specified, the value of employeeDateOfBirth cannot be in the future

## 6 Glossary

Acronym/term	Definition
<b>Activity statement</b>	Formally known as the Statement of Activity—the name for the data that is filed for AIM.
<b>AIM</b>	Accounting Income Method—a method that businesses can use for reporting and paying provisional income tax. Participating businesses are required to file a Statement Of Activity.
<b>Authentication</b>	The process that verifies the identity of the party attempting to access Inland Revenue.
<b>Authorisation</b>	The process of determining whether a party is entitled to perform the function or access a resource.
<b>EA</b>	Employment Activities—umbrella term for employment activities performed using the Return Service (submission of Employment Information) and/or Employment Service (submission of Employee Details) operations.
<b>ED</b>	Employee Details—data submitted by an employer to Inland Revenue relating to new, existing, or departing employees that is submitted via the Employment Service.
<b>EI</b>	Employment Information—data submitted by an employer relating to deductions made for their employees for a pay date.
<b>eServices</b>	START's authenticated customer-facing portal.
<b>Gateway</b>	START's web services gateway.
<b>GST</b>	Goods and Services Tax.
<b>GWS</b>	GateWay Services—the brand name for the suite of web services that Inland Revenue is providing. The Employment Service is a Gateway Service.
<b>HTTP(S)</b>	Hyper Text Transmission Protocol (Secure)—the protocol by which web browsers and servers interact with each other. When implemented over TLS1.2 HTTP becomes HTTPS.
<b>IAMS</b>	Identity and Access Management—a logical component that performs authentication and authorisation. Physically it is a set of discrete hardware and software products, plug-ins and protocols. Usually implemented as separate External IAMS (XIAMS) and Internal IAMS.
<b>IP</b>	Internet Protocol—the principal communication protocol in the Internet protocol suite for relaying datagrams across networks.
<b>IRD</b>	Inland Revenue Department (ie IRD number).
<b>NZISM</b>	NZ Information Security Manual—the security standards and best practices for Government agencies. Maintained by the NZ Government Communications Security Bureau (GCSB).
<b>OAuth2</b>	An HTTPS based protocol for authorising access to a resource, currently at version 2.
<b>SOAP</b>	Simple Object Access Protocol—a set of standards for specifying web services. Gateway Services uses SOAP version 1.2.

Acronym/term	Definition
<b>SSL</b>	Secure Sockets Layer certificates—used to establish an encrypted connection between a browser or user’s computer and a service or website.
<b>START</b>	Simplified Taxation and Revenue Technology—Inland Revenue’s new core tax processing application. It is an implementation of the GenTax product from FAST Enterprises.
<b>Statement of Activity</b>	See Activity Statement
<b>TLS1.2</b>	Transport Layer Security version 1.2—the protocol that is observed between adjacent servers for encrypting the data that they exchange. Prior versions of TLS and all versions of SSL have been compromised and are superseded by TLS1.2.
<b>URL</b>	Universal Resource Locator—also known as a web address.
<b>WSDL</b>	Web Service Definition Language—an XML definition of a web service interface.
<b>X.509 certificate</b>	An international standard for encoding and describing a digital certificate. In isolation a public key is just a very large number, the X509 certificate to which it is bound identifies whose key it is, who issued it, when it expires etc. When a counterparty’s X509 digital certificate is received, the recipient takes their public key out of it and store the key in their own key store. The recipient can then use this key to encrypt and sign the messages that they exchange with this counterparty.
<b>XIAMS</b>	External IAMS—an instance of IAMS that authenticates and authorises access by external parties (such as customers, trading partners etc), as opposed to internal parties (such as staff).
<b>XML</b>	Extensible Markup Language—a language used to define a set of rules used for encoding documents in a format that can be read by humans and machines.
<b>XSD</b>	XML Schema Definition—the current standard schema language for all XML data and documents.

## 7 Change log

This table lists all changes that have been made to this build pack document since the release of v1.0.

Date of change	Document section	Description
10/06/21	2.3	Removed 'To:' parameter from first sentence of section and from example SOAP request structure
	2.2	Description of 'Update' and 'Terminate' operations updated
	5.2	Error code 102 removed (The provided information was not specific enough to match with a single employment relationship)
	2.4	Security section restructured – now contains sub-sections on information classification, transport layer security and certificates, ciphers, end points, and authentication and authorisation
		New information added to provide for Inland Revenue's support for TLS1.3, and deprecation of certain TLS1.2 ciphers
		Updated end point information on web service consumer identification for desktop connections (in table)
		Updated list of recommended certificate authorities
		Updated list of requirements for accepting public X.509 keys – now includes ECDSA
	1	Moved 'Mutual Transport Layer Security and certificates' section into section 2.4
		'Prerequisites' table removed and absorbed into section 2.4.2
	4	Renamed 'End points, schema and WSDLs' section to 'Additional development resources'
		Removed section with redundant reference to end points
	5.1	Updated description of following response code: (none) (soap fault) UnAuthorised
13/10/20	4, 4.1, 4.2	Sections updated with new URLs
	1.1	Updates made to boxed instructions for where to find additional information such as business-level context, use cases and links to relevant policy.
	1.3	Updated instructions on where to find related build packs.
	2.4	Paragraph added at end of section with information on where to find updates to SOAP architecture
	3	Boxed text at start of section updated with new URL
	5.2	Error code 140 added: "employeeDateOfBirth cannot be in the future"

Date of change	Document section	Description
10/03/20	5.2	Added response codes 138 and 139
30/01/20	5.2	Error code 124 modified: "The StartDate and/or FinishDate overlaps with multiple other records"
29/01/20	5.2	Error code 124 added: "The start and/or stop date overlaps with multiple other records"
	1.4	Note added to Prerequisites table: Note that the same certificate cannot be used for the Test and Production environments.
	2.4	Updated TLS information to reflect use of TLS1.3
18/09/2019	3.2	Changed requirement and description for employmentStartDate to: Format: YYYY-MM-DD <b>NOTE:</b> Required for updateBody Optional for EmployeeIdentifierType
09/07/2019	3.4	First sentence changed to include "and ceased" employees: <i>This can be used to retrieve a full list of current and ceased employees (by not including an employee IRD number in the request) or retrieve one individual employee.</i>
30/05/2019	5.1	Change error code 118 description to be 14 days instead of 12 days
30/05/2019	1.3	Updated section
	5	Disclaimer added: <b>NOTE:</b> These response codes are subject to change and additional codes may be added from time to time. Software consuming this service <b>must</b> be able to account for additional responses that may not have been specifically coded.
	4.1	End points section changed to the following: Onboarding instructions are available at <a href="https://www.ird.govt.nz/software-providers/">https://www.ird.govt.nz/software-providers/</a> .
	2.4	Sentence removed: <i>For TDS Real Time web service requests, an OAuth token is required in the HTTP header.</i>
13/03/2019	5 Response codes	Error code 6 removed (authentication expired)
	3.1 Create	Text changed in employeeNameOnEILine description to include "(up to 20 characters)"
26/02/19	3 Operations	Description of softwarePlatform in table removed: <i>"The software package that is making the request".</i>

Date of change	Document section	Description
		Replaced with new description: "The field value will be provided by Inland Revenue during the onboarding process."
21/02/19	3.1 Create	Text added to employeeAddress field description: <i>Required when submitting a KS1 by including the employeeKiwisaverEligibility field (below).</i>
	3.2 Update	Text added to employeeAddress field description: <i>Required when submitting a KS1 or KS10 by including the employeeKiwisaverEligibility field (below).</i>  Text changed in employeeKiwiSaverEligibility field description: <i>Either NE for New Employee or EE for Existing Employee.</i> <i>Note that including this field will trigger the submission of a KS1 form unless the optedOut field (below) is set to true which will trigger the submission of a KS10.</i>
10/01/19	3.1 Create 3.2 Update	employmentStartDate field changed from 'optional' to 'required'
10/01/19 29/11/18	3.1 Create 3.2 Update 3.3 Terminate	Text within employeeIdentifier field description changed as below.  <b>Removed:</b> employeeDateOfBirth and employmentStartDate are optional, and will only be used if they are submitted in the payload.  <b>Replaced with:</b> employeeDateOfBirth is optional and will only be used if it is submitted in the payload.
	1.4	Removed row from prerequisites table on Inland Revenue: <b>INLAND REVENUE:</b> Provide the Inland Revenue public certificate for mutual TLS. Inland Revenue's public X.509 certificate to support TLS will be provided as part of connectivity testing.
29/11/18 05/09/18	3 4	<b>Removed:</b> <b>IMPORTANT:</b> The end points, schemas and WSDLs listed here are subject to change. For the authoritative definitions, please refer to the information provided on the Inland Revenue Gateway Services GitHub site: <a href="https://github.com/InlandRevenue/Gateway-Services">https://github.com/InlandRevenue/Gateway-Services</a>  <b>Replaced with:</b>  <b>IMPORTANT</b> The end points, schemas and WSDLs listed here are subject to change. For the authoritative definitions, please visit

Date of change	Document section	Description
		<a href="https://www.ird.govt.nz/software-providers/">https://www.ird.govt.nz/software-providers/</a>
	4.3	<p><b>Removed:</b></p> <p><i>Note: The WSDL hosted at the end point above will not contain these XSD references, only the static WSDL provided on our GitHub page.</i></p> <p><b>Replaced with:</b></p> <p><i>Note: The WSDL hosted at the end point above will not contain these XSD references, only the static WSDL provided at <a href="https://www.ird.govt.nz/software-providers/">https://www.ird.govt.nz/software-providers/</a>.</i></p>
	4.3 <a href="#">2.2</a> <a href="#">3.4</a>	<p><b>Removed:</b></p> <p>The Employment Gateway Service has one WSDL, which has a target namespace of <a href="https://services.ird.govt.nz/GWS&gt;Returns">https://services.ird.govt.nz/GWS&gt;Returns</a> and can be found at <a href="https://services.ird.govt.nz/GWS&gt;Returns?singleWsdI">https://services.ird.govt.nz/GWS&gt;Returns?singleWsdI</a>.</p> <p><b>Replaced with:</b></p> <p>The Employment Gateway Service has one WSDL, which has a target namespace of <a href="https://services.ird.govt.nz/GWS/Employment">https://services.ird.govt.nz/GWS/Employment</a> and can be found at <a href="https://services.ird.govt.nz:4046/gateway/gws/Employment/?singleWsdI">https://services.ird.govt.nz:4046/gateway/gws/Employment/?singleWsdI</a></p> <p><b>Note:</b> The production URL above will not work until you have onboarded with Inland Revenue.</p> <p>Added:</p> <p><b>Note:</b> This operation is not available to Payroll Bureaus.</p>
	1.3.2	<p>REMOVED:</p> <p><i>This Employment service build pack was written using information from version 0.8 of the Return service build pack.</i></p> <p>REPLACED WITH:</p> <p><i>This Employment service build pack was written using information from <b>version 1</b> of the Return service build pack.</i></p>
	1	<p>Removed section on onboarding documents from overview – added this instead:</p> <p><i>Before you continue, please be sure to consult <a href="http://www.ird.govt.nz/software-providers/">http://www.ird.govt.nz/software-providers/</a> for the products that use this service, business-level context and use cases, links to relevant policy, and information on how to integrate with Inland Revenue’s products and services.</i></p>



Date of change	Document section	Description
	1	REMOVED: The associated onboarding documents describe the end-to-end business level solution, of which this build pack forms part.
	(formerly section 6)	REMOVED: Section on Processing flows (including use cases). Readers are instead advised to visit <a href="https://www.ird.govt.nz/software-providers/">https://www.ird.govt.nz/software-providers/</a> for such information
	<a href="#">1.5.1</a>	Section 1.5.1 added to cover Mutual TLS and certificates
	<a href="#">2.4 Security</a>	Disclaimer removed as no longer current:  <b>IMPORTANT:</b> Please note that only the end points for cloud-based connections are currently available.
31/07/2018	<a href="#">3.1 Create</a> <a href="#">3.2 Update</a>	Updated the OpenAddressType to now accept the submission of FreeFormAddresses as a temporary solution for single field address data.
21/05/2018	<a href="#">4.1 End points</a>	<ul style="list-style-type: none"> <li>Removed asterisks from cloud-based end points and the following text:</li> <li><i>*Please note that only the end points for cloud-based connections are currently available.</i></li> </ul>
23/04/2018	<a href="#">3.2 Update</a>	Made Bank Account details optional and reworded the field descriptions.
17/04/2018	<a href="#">5.2 Response codes specific to Employment service</a>	<ul style="list-style-type: none"> <li>Changed codes 111 and 112 as bank information is optional on Opt Out</li> </ul>
06/03/2018	<a href="#">5.2 Response codes specific to Employment service</a>	<ul style="list-style-type: none"> <li>New Employment service-specific response code 114 added:</li> <li><i>Opting out for a KiwiSaver requires employee address information: Street address, city and post code are all required when opting out</i></li> </ul>
05/03/2018	<a href="#">3.1 Create</a> <a href="#">3.2 Update</a>	<ul style="list-style-type: none"> <li>Removed "(up to 20 characters)" from the employeeNameOnEILine field in these two sections, as schemas and WSDLs are where this information belongs. Also changed 'personalTitle' element to 'nameTitle' in example schemas</li> </ul>
22/02/2018	Entire doc	<ul style="list-style-type: none"> <li>Pagination updated</li> </ul>
22/02/2018 26/01/2018	<a href="#">3 Operations</a>	<ul style="list-style-type: none"> <li>Clarified cmn:identifier usage</li> </ul>
	<a href="#">5 Response codes</a>	<ul style="list-style-type: none"> <li>Updated descriptions for status codes 3,4</li> </ul>
	<a href="#">5.1</a>	<ul style="list-style-type: none"> <li>Added code 7, SOAP exception, concurrency limit exceeded,</li> </ul>

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		109
	<a href="#">5.2</a>	<ul style="list-style-type: none"> <li>Separated generic gateway codes from service specific codes.</li> </ul>
	<a href="#">3 Operations</a>	<ul style="list-style-type: none"> <li>Line of code added to example XML: &lt;cmn:accountType&gt;PSO&lt;/cmn:accountType&gt;</li> <li>Line for 'accountType' added to table of fields and descriptions to reflect PSO usage</li> </ul>
26/01/2018 08/12/2017	<a href="#">3.1 Create</a>	<p>Paragraph added:</p> <ul style="list-style-type: none"> <li>In this scenario, it is possible that the <i>Create</i> request would not have had time to process and become effective before the <i>Update</i> request is sent. In this case, the <i>Update</i> request would receive an error response code indicating the <i>Create</i> request has not yet processed.</li> </ul>
	<a href="#">3.2 Update</a>	Specific information added to <b>employeeMobilePhoneNumber</b> and <b>employeeDayPhoneNumber</b> lines in table of fields and descriptions.
	<a href="#">5.1 Response codes</a>	<ul style="list-style-type: none"> <li>Response codes added—numbers 118-123</li> <li>Removed 109 and 114</li> </ul>
	<a href="#">3.1 Create</a> and <a href="#">3.2 Update</a>	<p>Same changes made to both sections:</p> <ul style="list-style-type: none"> <li>Added text to employeeKiwiSaverEligibility entry in table of fields.</li> <li>Amended text in optedOut entry in table of fields.</li> </ul>
08/12/2017 22/11/2017	<a href="#">4 End points, schemas and WSDLs</a> And <a href="#">3 Operations</a>	<p>Changed opening disclaimer statement, including URL:</p> <ul style="list-style-type: none"> <li><b>IMPORTANT:</b> <i>The end points, schemas and WSDLs listed here are subject to change. For the authoritative definitions, please refer to the information provided on the Inland Revenue Gateway Services GitHub site:</i> <a href="https://github.com/InlandRevenue/Gateway-Services">https://github.com/InlandRevenue/Gateway-Services</a></li> </ul>
	<a href="#">6.1.1 Create and Update (new employee/KiwiSaver details)</a>	<p>Scenario 2, bullet point #2—text changed to:</p> <p><i>The user generates an Employee Details form, and fills out the required fields, making sure the 'optedOut' field is set to false.</i></p>
	Appendix – Sample payloads	<p>This appendix was removed from the build pack, as it is available on the IR Gateway Services GitHub site:</p> <p><a href="https://github.com/InlandRevenue/Gateway-Services">https://github.com/InlandRevenue/Gateway-Services</a></p>
	All	Changed all instances of 'IR' to 'Inland Revenue' (spelled out in full)
09/11/2017	<a href="#">5.1 Response codes</a>	Added two new entries to table of response codes: 107 and 108.
	Two sections	Employee surname changed to 'optional, except for...' in table of fields and descriptions
02/11/2017	<a href="#">3.2 Update</a>	Added further explanatory sentences to <b>employeeIdentifier</b> line in

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	and <a href="#">3.3 Terminate</a>	Field/Required/Description tables in sections 3.2 and 3.3: <i>employeeIRD and employeeNameOnEILine are required fields that must match IR's records in order to identify the appropriate employee.</i> <i>employeeDateOfBirth and employmentStartDate are optional, and will only be used if they are submitted in the payload.</i>
17/10/17	<a href="#">3.2 Update</a>	Updated wording to better highlight that previously submitted data will be overwritten if not included in subsequent Update operations.
17/10/17	New section <a href="#">6.1.5</a> added	Use case describing how to reinstate an incorrectly terminated employer/employee relationship