

Inland Revenue

Build Pack: Employment Service

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V2 SERVICE UPDATES

The following key changes have been made to the Employment Service between V1 and V2.

Document section	Description
3 Operations	<ul style="list-style-type: none"> Updated schema references from 'Employment.xsd' to 'Employment.v2.xsd'
3.1 Create	<ul style="list-style-type: none"> Updated 'KiwiSaverStatus', changed valid options to: AK, OK, NK, CT, AE (Removed: OT, NM, CH) Added new field EmployeeExemptIncome Updated employeeNameOnEILine to allow 255 characters, previously this was 20 Added tax codes table to show valid tax codes. ESS, SLCIR, and SLBOR are no longer valid tax codes Updated employeeKiwiSaverEligibility to use codes NE, EE, and EA. Add table of codes below fields
3.2 Update	<ul style="list-style-type: none"> Removed 'KiwiSaverStatus' field as it is no longer used for the Update operation Added new optional field 'lateOptOutReason' Added new optional field 'otherLateOptOutReason' field Updated employeeNameOnEILine in updateBody and in employeeIdentifier to allow 255 characters, previously this was 20 Updated employeeKiwiSaverEligibility to use codes NE, EE, and EA. Add table of codes below fields
3.4 RetrieveList	<ul style="list-style-type: none"> Updated employeeNameOnEILine to allow 255 characters, previously this was 20
3.5 Events	<ul style="list-style-type: none"> Added 'Events' operation Added 'Event type fields and examples' appendix

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.

Before continuing, please consult
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.

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.

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.

1.3.2 Employment Information Service

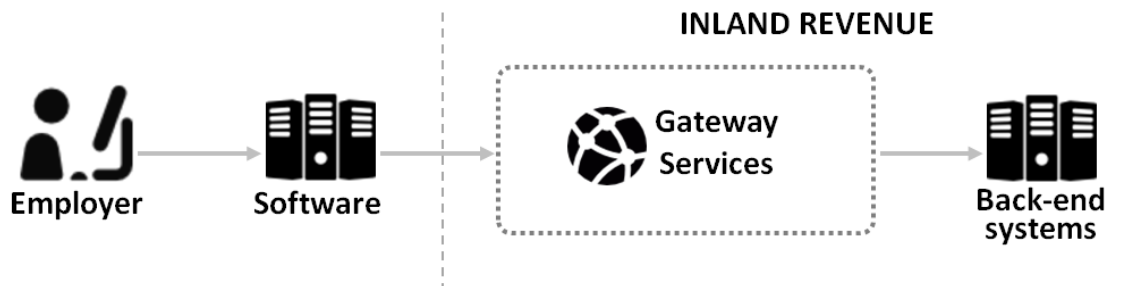
The Employment Information Service build pack v2 describes the operations provided under the Employment Information web service (v2), which forms part of the Gateway Services suite. The operations offered by this Service include the ability to submit a return to Inland Revenue for a customer, provide 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

2 Solution design

2.1 Architecture

Inland Revenue's Gateway Services suite is used by approved service providers to facilitate everything from registration activities, filing returns, making payments and other service offerings 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 this 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 and ceased employees linked to the requesting employer (Note: This operation is not available to payroll bureaus).
- **Event:** This operation enables employers to retrieve employment events for one or many employees.

2.3 Messaging

All SOAP messages require a SOAP header containing **Action:** parameters, as well as a SOAP body containing a structured XML payload.

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/v2/"
  xmlns:emp="https://services.ird.govt.nz/GWS/Employment/v2:/types/Create
  Request"
  xmlns:a="http://www.w3.org/2005/08/addressing">
  <soap:Header>
    <a:Action>https://services.ird.govt.nz/GWS/Employment/v2/Employment/some
    Operation</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/v2/Employment/CreateResponse
    </a:Action>
  </s:Header>
  <s:Body>
    <CreateResponse
      xmlns="https://services.ird.govt.nz/GWS/Employment/v2/">
      <CreateResult
        xmlns:b="https://services.ird.govt.nz/GWS/Employment/v2/:types/CreateResponse"
        xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
        <b:CreateResponseWrapper>
          <employmentResponse
            xmlns="urn:www.ird.govt.nz/GWS:types/Common.v2">
            <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 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
Supported now and in the future	<ul style="list-style-type: none"> • TLS_AES_128_GCM_SHA256 • TLS_AES_256_GCM_SHA384 • TLS_CHACHA20_POLY1305_SHA256

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

Status	TLS1.2 ciphers
Supported now and in the future	<ul style="list-style-type: none"> • TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384 • TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256
Supported now but will be deprecated on 31 March 2022	<ul style="list-style-type: none"> • TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA • TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA • TLS_RSA_WITH_AES_128_CBC_SHA • TLS_RSA_WITH_AES_256_CBC_SHA • TLS_DHE_RSA_WITH_AES_128_CBC_SHA • TLS_DHE_RSA_WITH_AES_128_CBC_SHA256 • TLS_DHE_RSA_WITH_AES_256_CBC_SHA • TLS_DHE_RSA_WITH_AES_256_CBC_SHA256 • TLS_DHE_RSA_WITH_AES_128_GCM_SHA256 • TLS_DHE_RSA_WITH_AES_256_GCM_SHA384

Status	TLS1.2 ciphers
Supported now but will be deprecated on 31 December 2022	<ul style="list-style-type: none"> • TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA256 • TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA384 • TLS_RSA_WITH_AES_128_CBC_SHA256 • TLS_RSA_WITH_AES_256_CBC_SHA256 • TLS_RSA_WITH_AES_128_GCM_SHA256 • TLS_RSA_WITH_AES_256_GCM_SHA384

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
Purpose	<ul style="list-style-type: none"> • Primary preferred end point to connect to from service providers for Gateway Services 	<ul style="list-style-type: none"> • 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
Client application type	<ul style="list-style-type: none"> • Cloud applications 	<ul style="list-style-type: none"> • Desktop/native applications • For connecting from multiple decentralised clients
Constraints	<ul style="list-style-type: none"> • Only for source locations with client-side TLS certificates • On the cloud end point Inland Revenue has controls to shield service providers from issues caused by heavy usage from other providers 	<ul style="list-style-type: none"> • Less scalable • Subject to tighter security controls • 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
		<ul style="list-style-type: none"> OAuth2 refresh tokens will not be offered to desktop clients
Mutual TLS	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Server-side certificates only
Minimum TLS version	<ul style="list-style-type: none"> 1.2 	<ul style="list-style-type: none"> 1.2
URL	<ul style="list-style-type: none"> Contains ../gateway/.. 	<ul style="list-style-type: none"> Contains ../gateway2/..
Port	<ul style="list-style-type: none"> 4046 	<ul style="list-style-type: none"> 443 (Default https port)
Web service consumer identification	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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.
Firewalling in production	<ul style="list-style-type: none"> No IP address restrictions Access limited by certificate enrolment 	<ul style="list-style-type: none"> No IP address restrictions
Firewalling in non-production environments	<ul style="list-style-type: none"> No IP address restrictions Access limited by certificate enrolment 	<ul style="list-style-type: none"> Firewalled—IP whitelisting needed

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

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

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.v2.xsd
- emp: Employment.v2.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.v2">
  <statusMessage xmlns="urn:www.ird.govt.nz/GWS:types/Common.v2">
    <statusCode>0</statusCode>
    <errorMessage>Success</errorMessage>
  </statusMessage>
</employmentResponse>
```

All operations for the Employment Service will contain three standard header fields:

- softwareProviderData
- identifier
- 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
softwareProvider	The company that developed the software
softwarePlatform	The field value will be provided by Inland Revenue during the onboarding process
softwareRelease	The version of the software package
IdentifierValueType	The ID type being submitted. For the Employment Service this value will be ACCIRD.
Identifier	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.
AccountType	The account type being submitted can only be 'PSO' or 'EMP'.

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>
```

After October 2021, Inland Revenue will no longer issue new IRD numbers for bankrupt clients. When a client's bankruptcy is finalised, the existing employer account will be closed (pre-adjudicated), and a new account will be opened (post-adjudicated) if the customer re-registers as an employer again. This will result in multiple employer accounts for a single IRD number. When specifying IRD or ACCIRD as the **IdentifierTypeValue**, the gateway will route the call to the active employer account. If the call needs to be routed to the ceased employer account, ACC needs to be used as the **IdentifierTypeValue**.

In order to reference the pre-adjudicated account, the IdentifierTypeValue will need to reference a more specific "ACC" identifier instead of "IRD" or "ACCIRD".

IRD	Type	ACC	Status	Identifier Type	Default
131-065-914	EMP	131-065-914-EMP003	Active	IRD, ACCIRD	Yes
131-065-914	EMP	131-065-914-EMP002	Closed	ACC	No

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 the following must be done:

- 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:employeeExemptIncome></emp1:employeeExemptIncome>
</emp1:createRequest>
  
```

Field	Required	Description
identifier	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.
accountType	Required	This value will need to be 'PSO' or 'EMP' to represent the Employment account
employeeIRD	Required	If the employee doesn't have an IRD number, enter all zeros
employeeName	Required	Full employee name Title (optional), First Name (mandatory), Middle Name (optional), Surname (mandatory for individuals).
employeeNameOnEILine	Required	This is the name (up to 255 characters) provided on the EI return
taxCode	Required	Multiple tax codes can be added in one submission (see table below for list of acceptable values)
employmentStartDate	Required	Format: YYYY-MM-DD
employmentFinishDate	Optional	If future Finish Date is known, place here and future termination will not be needed

Field	Required	Description
employeeDateOfBirth	Optional	Format: YYYY-MM-DD
employeeAddress	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 opting into KiwiSaver (as for a KS1 form).</p>
employeeEmailAddress	Optional	Employee email address
employeeMobilePhoneNumber	Optional	Standard mobile field
employeeDayPhoneNumber	Optional	Standard phone field
kiwiSaverStatus	Conditional	<p>Employee KiwiSaver status (see table below for list of acceptable values).</p> <p>A kiwiSaverStatus is required when KiwiSaver Eligibility 'NE' (New employee) is provided.</p>
employeeKiwiSaverEligibility	Optional	<p>Employee KiwiSaver Eligibility</p> <p>The combination of this field and the kiwiSaverStatus field determines when an employee is opting in (the equivalent of a KS1 form). See table below for list of acceptable values.</p>
employeeExemptIncome	Optional	Employee exempt income reason for KiwiSaver—see table below for list of acceptable values.

KiwiSaver status code	Description
AK	Active KiwiSaver member
OK	Opting into KiwiSaver
NK	Not eligible for KiwiSaver
CT	Casual/temporary employee
AE	Auto-enrol

KiwiSaver eligibility code	Description
NE	New employee

EE	Existing employee
EA	Existing employee auto-enrolled into KiwiSaver

Employee exempt income options	Description
BLH	Provide board-lodging-use of a house or part house or equivalent allowance
HPT	Honoraria payments
OES	Overpayment of an amount of an employer's superannuation cash contribution
RTA	Retiring allowance
TAO	Taxable allowances for accommodation and living costs overseas
VBS	Some payments under a voluntary bonding scheme and living costs overseas

Accepted tax codes:

- CAE
- EDW
- ND
- MESL
- MSL
- SH
- SB
- SBSL
- ST
- WT
- SSL
- ME
- NSW
- M
- SHSL
- STC
- S
- STSL
- SA
- SASL

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>
<!--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:lateOptOutReason>
  <!--Optional:-->
  </emp1:otherLateOptOutReason>
  <!--Optional:-->
  </emp1:updateBody>
</emp1:updateRequest>

```

Field	Requirement	Description
identifier	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.
accountType	Required	This value will need to be 'PSO' or 'EMP' to represent the Employment account
employeeIdentifier	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.
employeeIRD	Required	If the employee does not have an IRD number, enter all zeros
employeeName	Required	Full employee name Title (optional), First Name (mandatory), Middle Name (optional), Surname (mandatory for individuals).
employeeNameOnEILine	Required	This is the name (up to 255 characters) provided on the EI return
employmentStartDate	See note on right	Format: YYYY-MM-DD NOTE:

Field	Requirement	Description
		Required for updateBody Optional for EmployeeIdentifierType
employeeDateOfBirth	Optional	Format: YYYY-MM-DD
taxCode	Optional	Multiple tax codes can be added in one submission (see table below for list of acceptable values)
employeeAddress	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 opting into or out of KiwiSaver (as for a KS1 or KS10 form).
employeeEmailAddress	Optional	Employee email address for KS form
employeeMobilePhoneNumber	Optional	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). 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.
employeeDayPhoneNumber	Optional	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). 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.

Field	Requirement	Description
employeeKiwiSaverEligibility	Optional	Employee KiwiSaver Eligibility <ul style="list-style-type: none"> 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. See table below for list of acceptable values
optedOut	Optional	Setting this to 'true' is the equivalent of submitting a KS10 form
employeeBankAccountNumber	Optional	Only used for KiwiSaver opt-out but not required
accountHolderName	Optional	Standard name field for KS form
optedOutSignatureDate	Optional	Standard date field for KS form
validRelationship	Required	Indicates the validity of this employment relationship. If the record was created on accident, it must be invalidated
lateOptOutReason	Optional	Late opt-out reason for KiwiSaver NOTE: See table below for accepted values
otherLateOptOutReason	Optional	Free text field for other late opt-out reason for KiwiSaver

KiwiSaver eligibility code	Description
NE	New employee
EE	Existing employee
EA	Existing employee auto-enrolled into KiwiSaver

Late opt-out reasons	Description
INFO	Employer did not provide a KiwiSaver information pack within seven days of starting employment
IRIS	Inland Revenue did not send an investment statement upon allocation to a default scheme
ERIS	Employer did not provide an investment statement (for the employer-chosen KiwiSaver scheme)
EVNT	Events outside of control meant the opt-out application was unable to be submitted within the eight-week time limit
CRIT	Did not meet the criteria to join KiwiSaver (see Employee information pack [KS3] for criteria)
INNER	Incorrectly enrolled under the age of 18
OTHR	Other reason (please explain)

Accepted tax codes:

- CAE
- EDW
- ND
- MESL
- MSL
- SH
- SB
- SBSL
- ST
- WT
- SSL
- ME
- NSW
- M
- SHSL
- STC
- S
- STSL
- SA
- SASL

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
identifier	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.
accountType	Required	This value will need to be 'PSO' or 'EMP' to represent the Employment account
employeeIdentifier	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.
employmentFinishDate	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
identifier	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.
accountType	Required	This value will need to be 'PSO' or 'EMP' to represent the Employment account.
employeeIRD	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.v2">
    <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
employeeIRD	Required	If the employee doesn't have an IRD number, enter all zeros
employeeName	Required	Full employee name title (optional), first name (optional), middle name (optional), surname (optional)
employeeNameOnEILine	Required	This is the name (up to 255 characters) provided on the EI return
taxCode	Optional	Multiple tax codes can be added in one response
employeeDateOfBirth	Optional	Format: YYYY-MM-DD
employmentStartDate	Optional	Format: YYYY-MM-DD
employmentFinishDate	Optional	Format: YYYY-MM-DD

3.5 Event

Event enables employers to retrieve employment events for one or many employees. Events are intended to be consumed by software to either display information to end users or make determinations for next actions. Events can be specific to a product including Child Support, Student Loans or KiwiSaver.

3.5.1 Request

```
<emp1:eventRequest>
  <emp1:header>
    <com:softwareProviderData>
      <com:softwareProvider></com:softwareProvider>
      <com:softwarePlatform></com:softwarePlatform>
      <com:softwareRelease></com:softwareRelease>
    </com:softwareProviderData>
    <com:identifier IdentifierValueType="ACCIRD">012345678</com:identifier>
    <com:accountType>EMP</com:accountType>
  </emp1:header>
  <emp1:eventBody>
    <emp1:eventFrom></emp1:eventFrom>
    <emp1:eventTo></emp1:eventTo>
    <emp1:employeeIRD></emp1:employeeIRD>
  </emp1:eventBody>
</emp1:eventRequest>
```

Field	Required	Description
identifier	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.
accountType	Required	This value will need to be 'PSO' or 'EMP' to represent the Employment account
employeeIRD	Optional	Enter an employee's IRD number to retrieve only records for that employee. Omitting this field will request events for every employee linked to the employer identified in the header.
eventFrom	Required	The earliest date for events to be retrieved. This cannot be after eventTo.
eventTo	Optional	The latest date for events to be retrieved. If not provided, events will be returned from eventFrom to the present day.
eventType	Optional	Used to filter down which events retrieved by this service. If not provided, all event types will be returned.

3.5.2 Response

```
<eventResponse xmlns="urn:www.ird.govt.nz/GWS:types/Employment.v2">
  <statusMessage xmlns="urn:www.ird.govt.nz/GWS:types/Common.v2">
    <statusCode>0</statusCode>
    <errorMessage/>
  </statusMessage>
  <event>
    <eventID>1516994560</eventID>
    <type>SLCEDAMD</type>
    <employeeIRD>131001177</employeeIRD>
    <employeeName>Employee Name 1</employeeName>
    <expectedDeductionRate>0.05</expectedDeductionRate>
    <expectedAmount>200.00</expectedAmount>
    <currentTaxCode>SLCIR</currentTaxCode>
    <created>2021-02-01T15:15:22</created>
  </event>
  <event>
    <eventID>1449885696</eventID>
    <type>STRTSLCED</type>
    <employeeIRD>131001177</employeeIRD>
    <employeeName>Employee Name 2</employeeName>
    <startDate>9999-12-31</startDate>
    <expectedDeductionRate>0.05</expectedDeductionRate>
    <expectedAmount>200.00</expectedAmount>
    <currentTaxCode>SLCIR</currentTaxCode>
    <created>2021-02-01T15:15:22</created>
  </event>
  <event>
    <eventID>443252736</eventID>
    <type>KSDEDINC</type>
    <payDate>2019-11-30</payDate>
    <employeeIRD>131001177</employeeIRD>
    <employeeName>Employee Name 3</employeeName>
    <currentDeductionRate>0.03</currentDeductionRate>
    <expectedDeductionRate>0.06</expectedDeductionRate>
    <currentAmount>200.00</currentAmount>
    <expectedAmount>500.00</expectedAmount>
    <created>2021-02-01T15:15:22</created>
  </event>
</eventResponse>
```

Field	Required	Description
eventID	Required	A unique identifier for the event
type	Required	The type of event (specified in the following table)
payDate	Optional	The pay date associated with the event
employeeIRD	Required	The IRD of the employee to whom the event relates
employeeName	Required	The name of the employee to whom the event relates.
startDate	Optional	The start date of the event, if applicable. Format: YYYY-MM-DD

Field	Required	Description
stopDate	Optional	The stop date of the event, if applicable. Format: YYYY-MM-DD
reason	Optional	KiwiSaver reason type for the event, if applicable (specified in the table below)
currentDeductionRate	Optional	The employee's current deduction rate, if applicable
expectedDeductionRate	Optional	The expected deduction rate for the employee, if applicable
currentAmount	Optional	The current amount with the event, if applicable
expectedAmount	Optional	The expected amount with the event, if applicable
currentTaxCode	Optional	The current tax code for the employee, if applicable
expectedTaxCode	Optional	The expected tax code for the employee, if applicable
frequency	Optional	The pay frequency with the event, if applicable (specified in the table below)
Created	Required	The date and time of the event

3.5.3 Event types

Details of the following event types (fields and sample input) can be found in the [appendix](#).

Event type	Description
CSDEDC	Notification to employer to update the child support deductions for the employee effective from the pay date, pay frequency and amount.
CSDEDE	Notification to employer to cease child support deductions for the employee with the final pay date, pay frequency and amount provided.
CSDEDS	Notification to employer to start child support deductions for the employee effective from the first pay date, pay frequency and amount provided.
ICIDEN	Notification to employer to check the student loan deductions for their employee/s, as they are incorrect
INCTAXCHG	Notification to employer to change the standard income tax deduction for an employee
KSCTRINC	Notification to employer that their KiwiSaver contribution amount is incorrect
RDESTART	Notification to employer to stop making student loan deductions for a certain employee due to them having been granted a repayment deduction exemption
RDRCNL	Student Loan Reduced Deduction Rate cancellation
RDREND	Notification to employer to inform them their employee's reduced student loan deduction rate (RDE, Hardship, URT) is about to end and they will need to start making normal student loan deductions soon.
SDRSTART	Notification to employer to change the standard student loan deduction rate for a certain employee, due to having been granted a hardship or unused repayment threshold special deduction rate.
SLCEDAMD	Notification that the student loan compulsory extra deduction (CED) amount has been amended
STOPALLKS	Notification to employers to stop making both KiwiSaver deductions and compulsory employer contributions
STOPSLCED	Notification to employer to stop making student loan compulsory extra deductions.
STRTALLKS	Notification to an employer to start making KiwiSaver deductions and Compulsory Employer Contributions
STRTKSDED	Notification to employer that they must start making KiwiSaver deductions for a given employee
STRTNNR	Notification to employer to start making deductions at the no-notification rate
STRTSLCED	Notification to employer that they must start making student loan compulsory extra deductions.

Event type	Description
TAXCODECHG	Notification to an employer that the tax code for their employee should be changed
KSECNOTR	Notification to employers that their employer contributions are no longer compulsory (retirement age)
KSECNOTC	Notification to employers that their employer contributions are no longer compulsory
KSDEDINC	Notification to employer that the deduction amount and deduction rate used for an employee were incorrect
KSECRCHG	Notification to an employer that an employee has requested a change to the rate at which KiwiSaver employee deductions are made

3.5.3.1 *KiwiSaver reason types*

Reason	Description
IRINIT	Inland Revenue-initiated request
NOELIG	This employee is not eligible for automatic enrolment into KiwiSaver
STPCLS	KiwiSaver account closed
STPINV	Invalid enrolment
STPOPT	Opt-out approved
STPSSX	Saving suspension
STPXRQ	Not required to enrol
STROPT	New member opt-in
STROPX	Opt-out declined
STRSSE	Saving suspension ending

3.5.3.2 *Pay frequency*

Pay frequency	Description
4W	4 weekly
AH	Irregular/Ad-hoc
DA	Daily
FT	Fortnightly
HM	Half-monthly
MT	Monthly
WK	Weekly

3.5.3.3 *Reduced reduction rate type*

Type	Description
HRDSDR	Hardship Special Deduction Rate
SLSRDE	Repayment Deduction Exemption
URTSDR	Unused Repayment Threshold Special Deduction Rate

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/v2/?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.v2.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 the Common.v2.xsd and Employment.v2.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"> The submitted cmn:identifier has an invalid value The identifier type (IdentifierValueType attribute on cmn:identifier) supplied is invalid The AccountType supplied does not exist for that identifier All the values above are valid but the provided OAuth token does not have delegated access to that customer or account

Standard codes	Standard message	Description
5	Unauthorised vendor	The vendor provided is not authorised to use these suite of services.
7	Account type not supported	Queries on account types not supported in any Gateway Services web services will return this code. 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.
20	Unrecognised XML request	The XML submitted is not recognisable and no schema can be determined.
21	XML request failed validation	The XML structure did not meet the definition laid out by the schemas published by Inland Revenue.
(none)	(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.
(none)	(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 GatewayServices@ird.govt.nz .

5.2 Response codes specific to Employment Service

Standard codes	Standard message	Description
100	Could not extract data from XML payload	The XML structure passes schema validation, but the data is not valid.
101	The provided information did not match with any employment relationship	The employment relationship that is attempting to be changed does not exist.
103	The provided IRD number was invalid	The provided IRD number was invalid.
104	The specified account has no employees	The specified account has no employees.
105	The specified employer IRD could not be linked to an EMP account	The specified employer IRD could not be linked to an EMP account.
106	A relationship between this account and employee IRD already exists	A relationship between this account and employee IRD already exists.
107	The cease date cannot be before the commence date	The cease date cannot be before the commence date.
108	A provided tax code was invalid	A provided tax code was invalid.
109	Two primary tax codes submitted for one person	Two primary tax codes submitted for one person.
110	KiwiSaver eligibility should be omitted when opting out	KiwiSaver eligibility should be omitted when opting out.
111	A Bank Account is required when a Bank Account Holder Name is provided	A bank account holder name was submitted without a bank account.
112	A Bank Account Holder Name is required when a Bank Account is provided	A bank account was submitted without a bank account holder name.
113	Opting out for KiwiSaver requires an opted out signature date	Opting out for KiwiSaver requires an opted out signature date.
115	Opting in for KiwiSaver expects bank account to be omitted	Opting in for KiwiSaver expects bank account to be omitted.
116	Opting in for KiwiSaver expects bank account holder to be omitted	Opting in for KiwiSaver expects bank account holder to be omitted.
117	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.
121	The provided employee IRD number is not valid	The provided employee IRD number is not valid.

Standard codes	Standard message	Description
122	The provided submission created a request in error, please review payload	The provided submission created a request in error, please review payload.
124	The StartDate and/or FinishDate overlaps with multiple other records	The start date and/or finish date overlap with multiple other records
130	The provided KiwiSaver Status is not valid	The provided KiwiSaver status is not valid.
131	The provided Employee Exempt Income type is not valid	The provided employee exempt income type is not valid.
132	The provided KiwiSaver Late Opt-Out Reason is invalid	The provided KiwiSaver late opt-out reason is invalid.
133	Other Late Opt-Out Reason must be provided	Other late opt-out reason must be provided when 'other-explanation' is selected for 'lateOptOutReason'.
135	Opt-Out must be set to true as lateOptOutReason has been provided	Opt-out must be set to true as lateOptOutReason has been provided.
136	The provided employee KiwiSaver Eligibility status was invalid	The provided employee KiwiSaver eligibility status was invalid.
137	Tax code is unsupported for ES version 2	The provided tax code is not supported in version 2 of ES. Unsupported tax code values include ESS, SLCIR and SLBOR.

Standard codes	Standard message	Description
138	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
139	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
140	employeeDateOfBirth cannot be in the future	When specified, the value of employeeDateOfBirth cannot be in the future
141	Employee must have an 'ND' type tax code when using a zero IRD number	<p>Employees must use a 'ND' type tax code if they are using a zero IRD number.</p> <p>NOTE: A zero IRD number without an ND tax code <i>can</i> be valid for a non-resident entertainer or a non-resident contractor company. An employee details submission is not required in this case.</p>
142	Too many events to be returned	<p>There are too many events with the given parameters, additional filtering must be used on a subsequent query</p> <p>Note: The number of events is subject to change. It is currently 5000 events per call.</p>
143	Invalid event type	The event type provided is not valid
144	eventFrom cannot be after eventTo	The eventFrom date cannot be after eventTo date
145	eventFrom cannot be in the future	When specified, the value of eventFrom cannot be in the future
146	KiwiSaver Status Required	A kiwisaver status is required when KiwiSaver Eligibility 'NE' is provided

6 Appendix: Event type fields and examples

6.1 CSDEDC—Child support deduction change

Field	Example
eventID	1222901760
type	CSDEDC
payDate	2019-11-15
employeeIRD	123123123
employeeName	John Doe
expectedAmount	50.00
frequency	4W
created	2021-02-01T15:15:22

6.2 CSDEDE—Child support deduction end

Field	Example
eventID	2679915257
type	CSDEDE
payDate	2019-11-15
employeeIRD	123123123
employeeName	John Doe
created	2021-02-01T15:15:22

6.3 CSDEDS—Child support deduction start

Field	Example
eventID	2704902778
type	CSDEDS
payDate	2019-11-15
employeeIRD	123123123
employeeName	John Doe
expectedAmount	50.00
frequency	4W
created	2021-02-01T15:15:22

6.4 ICIDEN—Student loan incorrect deductions have been identified for an employee

Field	Example
eventID	2711765495
type	ICIDEN
employeeIRD	123123123
employeeName	John Doe
created	2021-02-01T15:15:22

6.5 INCTAXCHG—Change to income tax deductions for employee

Field	Example
eventID	2712319383
type	INCTAXCHG
employeeIRD	123123123
employeeName	John Doe
startDate	2020-04-01
stopDate	2021-03-29
expectedTaxCode	M
expectedDeductionRate	0.10
created	2021-02-01T15:15:22

6.6 KSCTRINC—Employer KiwiSaver contribution amount incorrect

Field	Example
eventID	2710018384
type	KSCTRINC
payDate	2019-11-15
employeeIRD	123123123
employeeName	John Doe
currentAmount	50.00
expectedAmount	100.00
created	2021-02-01T15:15:22

6.7 KSDEDINC—Employee KiwiSaver deduction amount incorrect

Field	Example
eventID	2673572380
type	KSDEDINC
payDate	2019-11-15
employeeIRD	123123123
employeeName	John Doe
currentDeductionRate	0.10
expectedDeductionRate	0.12
currentAmount	50.00
expectedAmount	100.00
created	2021-02-01T15:15:22

6.8 KSECNOTC—KiwiSaver employer contributions not compulsory

Field	Example
eventID	2679915129
type	KSECNOTC
employeeIRD	123123123
employeeName	John Doe
stopDate	2021-03-29
created	2021-02-01T15:15:22

6.9 KSECNOTR—KiwiSaver employer contributions not compulsory

Field	Example
eventID	2679915257
type	KSECNOTR
employeeIRD	123123123
employeeName	John Doe
stopDate	2021-03-29

6.10 RDESTART—Stop making SL deductions for employee due to having a repayment deduction exemption

Field	Example
eventID	2685590509
type	RDESTART
employeeIRD	123123123
employeeName	John Doe
startDate	2021-03-01
stopDate	2021-03-29
expectedTaxCode	M
created	2021-02-01T15:15:22

6.11 RDRCNL—Reduced deduction rate cancelled

Field	Example
eventID	2687447729
type	RDRCNL
employeeIRD	123123123
employeeName	John Doe
startDate	2021-03-01
expectedTaxCode	MSL
created	2021-02-01T15:15:22

6.12 RDREND—Reduced deduction rate is ending for an employee

Field	Example
eventID	2689255437
type	RDREND
employeeIRD	123123123
employeeName	John Doe
startDate	2021-03-01
expectedTaxCode	SSL
created	2021-02-01T15:15:22

6.13 SDRSTART—Change SL deductions for employee due to having a student loan special deduction rate

Field	Example
eventID	2703505267
type	SDRSTART
employeeIRD	123123123
employeeName	John Doe
startDate	2021-03-01
stopDate	2021-03-29
expectedDeductionRate	0.10
currentTaxCode	M
created	2021-02-01T15:15:22

6.14 SLCEDAMD—Student loan compulsory extra deduction—amount due amended

Field	Example
eventID	2703814430
type	SLCEDAMD
employeeIRD	123123123
employeeName	John Doe
expectedDeductionRate	0.05
expectedAmount	50.00
currentTaxCode	M
created	2021-02-01T15:15:22

6.15 STOPALLKS—Stop KiwiSaver deductions and compulsory employer deductions

Field	Example
eventID	2703814558
type	STOPALLKS
employeeIRD	123123123
employeeName	John Doe
stopDate	2021-03-01
reason	IRINIT
created	2021-02-01T15:15:22

6.16 STOPSLCED—Stop student loan compulsory extra deductions

Field	Example
eventID	2703814638
type	STOPSLCED
employeeIRD	123123123
employeeName	John Doe
currentTaxCode	M
created	2021-02-01T15:15:22

6.17 STRTALLKS—Start making KiwiSaver deductions and compulsory employer contributions

Field	Example
eventID	2704902778
type	STRTALLKS
employeeIRD	123123123
employeeName	John Doe
startDate	2021-03-29
reason	IRINIT
expectedDeductionRate	0.03
created	2021-02-01T15:15:22

6.18 STRTKSDED—Start KiwiSaver deductions

Field	Example
eventID	2707364477
type	STRTKSDED
employeeIRD	123123123
employeeName	John Doe
startDate	2021-03-29
reason	IRINIT
expectedDeductionRate	0.03
created	2021-02-01T15:15:22

6.19 STRTNNR—Start deducting at the no-notification rate

Field	Example
eventID	2709336069
type	STRTNNR
payDate	2019-11-15
employeeIRD	123123123
employeeName	John Doe
ExpectedDeductionRate	0.46
created	2021-02-01T15:15:22

6.20 STRTSLCED—Start student loan compulsory extra deductions

Field	Example
eventID	2709336069
type	STRTSLCED
employeeIRD	123123123
employeeName	John Doe
startDate	2021-03-01
expectedDeductionRate	0.05
expectedAmount	50.00
currentTaxCode	M
created	2021-02-01T15:15:22

6.21 TAXCODECHG—Tax code changes required

Field	Example
eventID	2710018384
type	TAXCODECHG
payDate	2021-03-29
employeeIRD	123123123
employeeName	John Doe
currentTaxCode	M
expectedTaxCode	ME
created	2021-02-01T15:15:22

6.22 KSECRCHG—Change KiwiSaver employee deduction rate

Field	Example
eventID	2673572380
type	KSECRCHG

Field	Example
employeeIRD	123123123
employeeName	John Doe
expectedDeductionRate	0.04
created	2021-02-01T15:15:22

7 Change log

This table lists all changes that have been made to this build pack document since V2 was created.

Date of change	Document section	Description
30/03/22	3.1	<ul style="list-style-type: none"> Changed kiwiSaverStatus requirement from 'Required' to 'Conditional'
	5.1	<ul style="list-style-type: none"> New response code 146 - KiwiSaver Status Required
01/02/22	3.5.3, 6.22	<ul style="list-style-type: none"> New event type added: <ul style="list-style-type: none"> KSECRCHG
17/09/21		<ul style="list-style-type: none"> October 2021 release changes
	3.5	<ul style="list-style-type: none"> New operation added: <ul style="list-style-type: none"> Event NOTE THAT THIS OPERATION WILL NOT GO INTO PRODUCTION UNTIL OCTOBER 2021
	6	<ul style="list-style-type: none"> Appendix added: Event type fields and examples
	5.2	<ul style="list-style-type: none"> Event-specific response codes added to list: <ul style="list-style-type: none"> 142 143 144 145
	5.2	<ul style="list-style-type: none"> Removed following response codes as no longer applicable: <ul style="list-style-type: none"> 114 (Opting out for a KiwiSaver requires employee address information) 118 (Employee cannot opt out of KiwiSaver during their first 14 days of employment) 134 (Opt-Out is late, so other reason must be provided)
	3	<ul style="list-style-type: none"> Added description at end of section to cover bankruptcy after October 2021
		<ul style="list-style-type: none"> Glossary removed
10/06/21	2.4	<ul style="list-style-type: none"> Security section restructured – now contains sub-sections on information classification, transport layer security and certificates, ciphers, end points, and authentication and authorisation
		<ul style="list-style-type: none"> New information added to provide for Inland Revenue's support for TLS1.3, and deprecation of certain TLS1.2 ciphers
		<ul style="list-style-type: none"> Updated end point information on web service consumer identification for desktop connections (in table)

Date of change	Document section	Description
		<ul style="list-style-type: none"> Updated list of recommended certificate authorities Updated list of requirements for accepting public X.509 keys – now includes ECDSA
	1	<ul style="list-style-type: none"> Moved 'Mutual Transport Layer Security and certificates' section into section 2.4 'Prerequisites' table removed and absorbed into section 2.4.2
	4	<ul style="list-style-type: none"> Renamed 'End points, schema and WSDLs' section to 'Additional development resources' Removed section with redundant reference to end points
	5.1	<ul style="list-style-type: none"> Updated description of following response code: (none) (soap fault) UnAuthorised
	2.2	<ul style="list-style-type: none"> Description of 'Update' and 'Terminate' operations updated
	5.2	<ul style="list-style-type: none"> Error code 102 removed (The provided information was not specific enough to match with a single employment relationship)
06/05/21	3.5	<ul style="list-style-type: none"> New operation added: <ul style="list-style-type: none"> Event <p>NOTE THAT THIS OPERATION WILL NOT GO INTO PRODUCTION UNTIL OCTOBER 2021</p>
	6	<ul style="list-style-type: none"> Appendix added: <ul style="list-style-type: none"> Event type fields and examples
	5.2	<ul style="list-style-type: none"> Event-specific response codes added to list: <ul style="list-style-type: none"> 142 143 144 145
03/02/21	3.1, 3.2	<ul style="list-style-type: none"> New codes added to list of approved tax codes as part of 2021 annual changes: <ul style="list-style-type: none"> SA and SASL
25/11/20	5.2	<ul style="list-style-type: none"> Error code 141 description note updated: <ul style="list-style-type: none"> Employees must use a 'ND' type tax code if they are using a zero IRD number. <p>NOTE: A zero IRD number without an ND tax code <i>can</i> be valid for a non-resident entertainer or a non-resident contractor company. An employee details submission is not required in this case.</p>
	3.1	<ul style="list-style-type: none"> Sample XML fragment reformatted to include start of element block: <code><emp1:employeeExemptIncome></emp1:employeeExemptIncome></code>
21/09/20	2.3	<ul style="list-style-type: none"> Resolved namespaces to v2
	4.2, 4.3	<ul style="list-style-type: none"> Corrected schema versions to v2

Date of change	Document section	Description
15/09/20	1.1	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Updated instructions on where to find related build packs.
	2.4	<ul style="list-style-type: none"> Paragraph added at end of section with information on where to find updates to SOAP architecture
	3	<ul style="list-style-type: none"> Boxed text at start of section updated with new URL
	4	<ul style="list-style-type: none"> Entire section updated to reflect new URL for where to find end points, schema and WSDLs
07/09/20	5.2	<ul style="list-style-type: none"> Added error code 141
26/08/20	5.2	<ul style="list-style-type: none"> Added error code 140
16/04/20	2.3	<ul style="list-style-type: none"> Removed "To:" from the first sentence on SOAP headers: <ul style="list-style-type: none"> All SOAP messages require a SOAP header containing To: and Action: parameters, as well as a SOAP body containing a structured XML payload.
03/04/20		<ul style="list-style-type: none"> V2 released
01/04/22	3.5.3 & 6.22	<ul style="list-style-type: none"> Added new event type for KiwiSaver employee deduction rate change requests