Inland Revenue
Te Tari Taake

Inland Revenue

Build pack: Intermediation Service

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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 supports efficient, electronic business interactions with Inland Revenue. The Intermediation Service described in this build pack document forms part of a suite of Gateway Services.

Intermediation is the process of linking a business intermediary (such as a tax agent, bookkeeper, payroll bureau, payroll intermediary etc) to an individual or organisation so the intermediary can act on their behalf for tax purposes. This Intermediation Gateway Service provides the ability for intermediaries to manage links to clients as well as provides the ability for business intermediaries to retrieve client lists already established in myIR.

This build pack document is intended to provide the technical information required to support the end-to-end onboarding of the Intermediation Service. 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 teams and development staff. It describes the technical interactions, including responses, provided by the Intermediation 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 of this document.

1.3 Related services

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

1.3.1 Identity and Access Services (required)

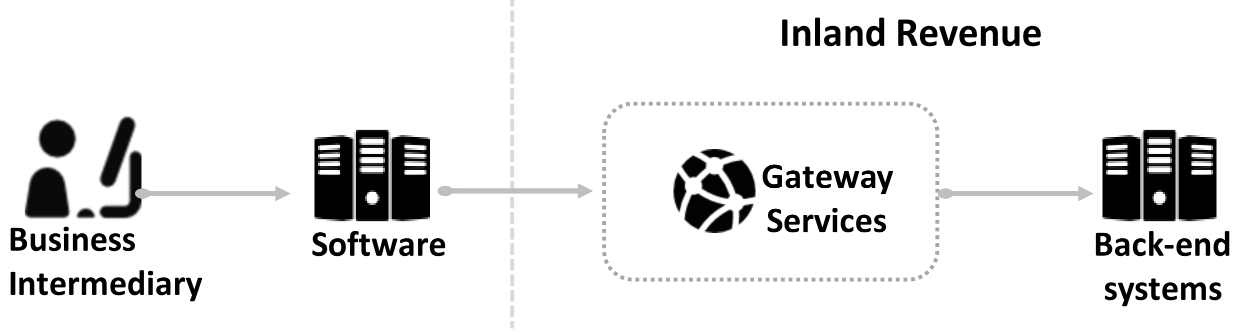
The Identity and Access Services (IAS) are used to authenticate access. Authentication tokens will need to be retrieved via IAS prior to making calls to the Intermediation Service. This Intermediation Service build pack was written using information from version 1.5 of the IAS build pack.

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 from the business intermediary 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 instantly be rejected by the Gateway Services prior to any schema validation.

2.2 Service scope

This service supports the following operations:

- **RetrieveClientList:** This operation is used to retrieve client lists belonging to a business intermediary as well as the clients in each list.
- **Link:** This operation is used to link an intermediary to a client or a business intermediary's client list to a client account.
- **Delink:** This operation is used to delink a client from a business intermediary or a client account from an business intermediary's client list.
- **RetrieveClient:** This operation is used to retrieve the link attributes between a business intermediary and client or client accounts.
- **Update:** This operation is used to update an existing business intermediary to client relationship. This can also be used to switch clients between client lists.

2.3 Messaging

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 schema that define the requests.

Any XML submissions in the SOAP body that do not meet the provided schema will not be accepted by the Gateway Services. Incorrect namespaces will also fail validation against the published schema.

Note that the Gateway Services use the SOAP version 1.2 protocol, and the SOAP service contract is published using WSDL version 1.1.

Example SOAP request structure

```
<soap:Envelope xmlns:soap="http://www.w3.org/2003/05/soap-envelope"
        xmlns:int="https://services.ird.govt.nz/GWS/Intermediation/"
        xmlns:ret=https://services.ird.govt.nz/GWS/Intermediation/:types/RetrieveClientListRequest
        xmlns:a="http://www.w3.org/2005/08/addressing">
    <soap:Header/>
    <soap:Header>
        <a:Action>https://services.ird.govt.nz/GWS/Intermediation/Intermediation/RetrieveClientList</a:Action>
    </soap:Header>
    <soap:Body>
        <int:RetrieveClientList>
            <int:RetrieveClientListRequestMsg>
                <ret:RetrieveClientListRequestWrapper>
                    <!-- Intermediation Fields -->
                </ret:RetrieveClientListRequestWrapper>
            </int:RetrieveClientListRequestMsg>
        </int:RetrieveClientList>
    </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
        xmlns:int1="https://services.ird.govt.nz/GWS/Intermediation/"
        xmlns:int2="urn:www.ird.govt.nz/GWS:types/Intermediation.v1"
        xmlns:b=https://services.ird.govt.nz/GWS/Intermediation/:types/RetrieveClientListResponse
        xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
    <s:Header>
        <a:Actions:mustUnderstand="1">
            https://services.ird.govt.nz/GWS/Intermediation/Intermediation/RetrieveClientList
        </a:Action>
    </s:Header>
    <s:Body>
        <int1:RetrieveClientListResponse>
            <int1:RetrieveClientListResult>
                <b:RetrieveClientListResponseWrapper>
                    <int:retrieveClientListResponse >
                        <!-- Response fields -->
                    </int:retrieveClientListResponse>
                </b:RetrieveClientListResponseWrapper>
            </int1:RetrieveClientListResult>
        </int1:RetrieveClientListResponse>
    </s:Body>
</s:Envelope>
```

2.4 Security

2.4.1 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.

2.4.2 Ciphers

While Inland Revenue currently supports TSL1.2, 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	• 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 future	• 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	• 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
Supported now but will be deprecated on 31 December 2022	• 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

2.4.3 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	• Primary preferred end point to connect to from service providers for Gateway Services	• 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	• Cloud applications	• Desktop/native applications • For connecting from multiple decentralised clients
Constraints	• 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	• 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 • OAuth2 refresh tokens will not be offered to desktop clients
Mutual TLS	• 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	• Server-side certificates only

	End point for cloud-based connections	End point for desktop connections
Minimum TLS version	• 1.2	• 1.2
URL	• Contains …/gateway/..	• Contains …/gateway2/..
Port	• 4046	• 443 (Default https port)
Web service consumer identification	• 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	• 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	• No IP address restrictions • Access limited by certificate enrolment	• No IP address restrictions
Firewalling in non-production environments	• No IP address restrictions • Access limited by certificate enrolment	• Firewalled—IP whitelisting needed

2.4.4 Authentication and authorisation

Authentication and authorisation are the mechanisms by which the consumer of the service is identified, and their access rights enforced. This 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 is 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.

2.4.5 Information security obligations

The software provider is responsible for ensuring that the data their system has retrieved from Inland Revenue is used for the intended purpose and is protected from inappropriate access by software users and external parties. This obligation is particularly important for consumers of the Intermediation Service, due to the access granted to sensitive personal and/or commercial information about tax payers.

The Gateway Services enforce the same access controls as Inland Revenue's other channels, but they enable access to large data sets which, when using the other channels, tend to be restricted to one record at a time. Software developers therefore need to be aware of this heightened risk and their responsibility to secure this data from unintended disclosure.

2.4.6 Delegated authority

Software developers will need to include a prompt in their intermediation service for the intermediary to check that the IRD number they have entered is correct and to confirm they hold a signed authority to act for the client before they can submit this to Inland Revenue through their software.

For example:

I declare that I hold a signed authority to act for the tax types and activities I am representing on behalf of this client. I acknowledge that linking or accessing their accounts without a signed authority to act is a breach of my obligations as a registered intermediary.

3 Operations

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 these schema aliases:

- Cmn: Common.v2.xsd
- Int: Intermediation.v1.xsd

All requests and responses live in the Intermediation.xsd.

All operations for the Intermediation Service will contain two standard header fields: **softwareProviderData** and **identifier**.

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. Please refer to individual operations for the nature of the identifier expected in this parameter in any given context.

For example:

```
<cmn:softwareProviderData>
    <cmn:softwareProvider>SoftwareProvider</cmn:softwareProvider>
    <cmn:softwarePlatform>SoftwarePlatform</cmn:softwarePlatform>
    <cmn:softwareRelease>v2</cmn:softwareRelease>
</cmn:softwareProviderData>
<cmn:identifier IdentifierValueType="IRD">012345678</cmn:identifier>
```

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 tax preparer
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	NOT USED. No intermediation links will originate from an intermediary account. This field will be omitted from all below examples.

Proper use:

- The only softwareProviderData fields into which users will be able to enter information are the ones that were provided to Inland Revenue at the time of onboarding.
- The identifier is that of the business intermediary on whose behalf the operations are being performed.
- For most cases in the Intermediation Service the IdentifierValueType field will be IRD. However, if submitting a customer ID the value CST can be used.

Example scenario:

- Tax agency with IRD 021894334 wants to retrieve a client list
  - Tax agent with access to agency calls /Intermediation/RetrieveClientList/ with <cmn:identifier IdentifierValueType="IRD">021894334 </cmn:identifier>

3.1 RetrieveClientList

The RetrieveClientList operation will be used to retrieve all or some of a business intermediary's clients. There is also an option to retrieve all of a business intermediary's clients of a given account type. For those who are not registered as either a tax agent, bookkeeper or payroll intermediary, this operation will also provide a client's status. All links returned by this operation will be active links but the accounts they are linked to may be ceased.

3.1.1 Request

```
<int:retrieveClientListRequest
      xmlns:int="urn:www.ird.govt.nz/GWS:types/Intermediation.v1"
      xmlns:cmn="urn:www.ird.govt.nz/GWS:types/Common.v2">
          <cmn:softwareProviderData>
                    <cmn:softwareProvider>…</cmn:softwareProvider>
                    <cmn:softwarePlatform>…</cmn:softwarePlatform>
                    <cmn:softwareRelease>…</cmn:softwareRelease>
          </cmn:softwareProviderData>
          <cmn:identifier IdentifierValueType="IRD">021894334</cmn:identifier>
          <!--Optional-->
          <int:filterAccountType>FBT</int:filterAccountType>
          <!--Optional-->
          <int:filterClientListID>123154150</int:filterClientListID>
</int:retrieveClientListRequest>
```

Field	Required	Description
filterAccountType	Optional	This is used to limit the resulting accounts to only this specified account type.
filterClientListID	Optional	This filter will be used to only retrieve one client list. This can be used in conjunction with filterAccountType. If all available client lists are filtered out, error code 103 will be returned.

NOTE: The IRD number submitted in the identifier field will **ALWAYS** be that of the business intermediary and NOT that of the client list. If a single client list is desired be sure to use the filterClientListID field.

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3.1.2 Response


```
<!--Tax Agent, Payroll Intermediary, or Bookkeeper Response-->
<agency agencyID="123154150" agencyIDType="IRD">
   <clientList clientListId="123154150" clientListIdType="LSTID" clientListType="TAXCLI"
    hasRefundAccount="false">
      <client>
          <clientID IdentifierValueType="ACCIRD">123154134</clientIRD>
          <clientAccountType>GST</clientAccountType>
      </client>
      <client>
           <clientID IdentifierValueType="IRD">123154126</clientIRD>
      </client>
   </clientList>
   <clientList clientListId="1231544" clientListIdType="CLTID" clientListType="BKPCLI"
    hasRefundAccount="true">
      <client>
          <clientID IdentifierValueType="ACCIRD">123163915</clientIRD>
          <clientAccountType>GST</clientAccountType>
      </client>
   </clientList>
</agency>

<!--Payroll Bureau or Other Rep Response-->
<agency agencyID="123154150" agencyIDType="IRD">
   <clientList clientListId="1231234" clientListIdType="CLTLID" clientListType="PAYCLI"
    hasRefundAccount="false">
         <client status="APPROVED">
          <clientID IdentifierValueType="ACCIRD">123154134</clientID>
          <clientAccountType>EMP</clientAccountType>
      </client>
         <client status="APPROVED">
           <clientID IdentifierValueType="ACCIRD">123154133</clientID>
          <clientAccountType>EMP</clientAccountType>
      </client>
         <client status="PENDING">
           <clientID IdentifierValueType="ACCIRD">123154126</clientID>
          <clientAccountType>EMP</clientAccountType>
      </client>
   </clientList>
   <clientList clientListId="1231544" clientListIdType="CLTID" clientListType="OTHCLI"
    hasRefundAccount="false">
      <client status="PENDING">
          <clientID IdentifierValueType="ACCIRD">123163915</clientID>
          <clientAccountType>GST</clientAccountType>
      </client>
   </clientList>
</agency>
```


Field	Required	Description
agencyID	Required	This attribute of the <agency> tag will display the ID of the agency.
clientListId	Required	This attribute of the <clientList> tag will display the ID of the client list.
clientListIdType	Required	This attribute will show the client list ID type. For expected values see appendix.

Field	Required	Description
clientListType	Required	This attribute is used to distinguish the type of client list being returned. This is useful for business intermediaries that work in multiple compacities (Tax Agent and Bookkeeper) and have different client lists for the different roles. For expected values see appendix.
hasRefundAccount	Required	This attribute will be used to state whether or not the client list has a refund account on it.
clientID	Required	This field is the client's ID in the format of the IdentifierValueType.
IdentifierValueType	Required	The ID type being returned for the clientID value.
clientAccountType	Optional	This field is the client account. If the link associated to this client list is a customer master link, then this field will not be provided (See second client in the TAXCLI list above).
status	Optional	This field will only be returned for payroll bureaus and other representatives. If a link to a client has been requested but not approved yet, this attribute will be supplied as PENDING. Once approved the status will return APPROVED.

3.2 Link

The Link operation will be used to establish a relationship between a business intermediary and a client. There are two different uses for this operation—linking to an account and declaring as the customer master of the client. To link to a client as the customer master a link to a client account must be made prior to making the customer master link call. For business intermediaries that require client approval, a client correspondence will be created once the link operation is called. This will be delivered via email where the client can approve the link. It is worth noting that any existing EQU or ERA accounts will be automatically linked when linking to a client’s income tax account.

Service behaviour note: The back-end updates for the Link and Delink operations are near-real time. Creating and updating links is resource-intensive and the speed of these actions will depend on the current queue of requests. Synchronous success responses will determine the request has been received but it does not mean that the back-end resource has been updated yet. No update should take longer than three minutes.

3.2.1 Request

```
<int:linkRequest
        xmlns:cmn="urn:www.ird.govt.nz/GWS:types/Common.v2"
        xmlns:int="urn:www.ird.govt.nz/GWS:types/Intermediation.v1">
        <cmn:softwareProviderData>
                <cmn:softwareProvider>…</cmn:softwareProvider>
                <cmn:softwarePlatform>…</cmn:softwarePlatform>
                <cmn:softwareRelease>…</cmn:softwareRelease>
        </cmn:softwareProviderData>
        <cmn:identifier IdentifierValueType="IRD">111111111</cmn:identifier>
        <int:clientListID IdentifierValueType="LSTID">123321441</int:clientListID>
        <int:target>
                <int:clientID IdentifierValueType="IRD">123123123</int:clientID>
                <int:clientAccountType>GST</int:clientAccountType>
        </int:target>
        <int:redirectMail>true</int:redirectMail>
        <int:redirectDisbursements>false</int:redirectDisbursements>
        <int:updateCustomerMaster>false</int:updateCustomerMaster>
</int:linkRequest>
```

Field	Required	Description
clientListID	Required	This is the identifier for the client list. The identifier value types expected here can be found in the appendix.
clientID	Required	This is the identifier for the client. The expected value for the identifier value type here is either ACCIRD or IRD unless the link request is for a customer master, then the expected value is IRD.
clientAccountType	Optional	This field is the client account. If the link request is for a customer master link, then this field should not be provided.
redirectMail	Optional	This field is used to set the redirect mail flag. If this field is not supplied the default value will be false.

Field	Required	Description
redirectDisbursements	Optional	This field is used to set the redirect disbursements flag on a link. This can only be done on account links and not for customer master links. Redirect disbursements can **only** be used if a refund account has been setup on the source client list.
updateCustomerMaster	Required	This field is to designate whether the requested link is to establish customer master or not. This action is only accessible to tax agents and should always be false for all other intermediaries.

NOTE: The IRD number submitted in the identifier field will **ALWAYS** be that of the business intermediary and NOT that of the client list.

3.2.2 Response


```
<int:linkResponse
          xmlns:cmn="urn:www.ird.govt.nz/GWS:types/Common.v2"
          xmlns:int="urn:www.ird.govt.nz/GWS:types/Intermediation.v1">
          <cmn:statusMessage>
                    <cmn:statusCode>0</cmn:statusCode>
                    <cmn:errorMessage> </cmn:errorMessage>
                    <cmn:errorDescription> </cmn:errorDescription>
          </cmn:statusMessage>
          <int:clientListID IdentifierValueType="CLTLID">1234567</int:clientListID>
          <int:client status="PENDING">
                    <int:clientID IdentifierValueType="ACCIRD">123123123</int:clientID>
                    <int:clientAccountType>GST</int:clientAccountType>
          </int:client>
</int:linkResponse>
```


Field	Required	Description
clientListID	Required	This field is the identifier for the client list. The identifier value types expected here can be found in the appendix
clientID	Required	This field is the identifier for the client that was linked to.
clientAccountType	Optional	This field is the account that was linked. This field will not be provided if the link request was to establish a customer master.
status	Optional	This field will only be returned for payroll bureaus and other representatives. If a link to a client has been requested but not approved yet, this attribute will be supplied as PENDING. Once approved the status will return APPROVED.

3.3 Delink

The Delink operation will be used to cease a relationship between a business intermediary and a client. There are two different uses for this operation—delinking from an account and removing the business intermediary as the customer master for the client.

Service behaviour note: The back-end updates for the Link and Delink operations are near real time. Creating and updating links is resource-intensive and the speed of these actions will depend on the current queue of requests. Synchronous success responses will determine the request has been received but it does not mean that the back-end resource has been updated yet. No update should take longer than three minutes to be made.

3.3.1 Request

```
<n1:delinkRequest
        xmlns:cmn="urn:www.ird.govt.nz/GWS:types/Common.v2"
        xmlns:n1="urn:www.ird.govt.nz/GWS:types/Intermediation.v1">
        <cmn:softwareProviderData>
                <cmn:softwareProvider>…</cmn:softwareProvider>
                <cmn:softwarePlatform>…</cmn:softwarePlatform>
                <cmn:softwareRelease>…</cmn:softwareRelease>
        </cmn:softwareProviderData>
        <cmn:identifier IdentifierValueType="IRD">021894334</cmn:identifier>
        <n1:clientListID IdentifierValueType="LSTID">123445111</n1:clientListID>
        <n1:target>
                <n1:clientID IdentifierValueType="ACCIRD">123321125</n1:clientID>
                <n1:clientAccountType>GST</n1:clientAccountType>
        </n1:target>
        <n1:updateCustomerMaster>false</n1:updateCustomerMaster>
</n1:delinkRequest>
```

Field	Required	Description
clientListID	Required	This is the identifier for the client list. The identifier value types expected here can be found in the appendix.
clientID	Required	This is the identifier for the client. The expected value for the identifier value type here is ACCIRD unless the delink request is for a customer master—then the expected value is IRD.
clientAccountType	Optional	This field is the client account. If the delink request is for a customer master link, then this field should not be provided.
updateCustomerMaster	Required	This field is to designate whether the request is to remove customer master. This action is only accessible to tax agents and should always be false for all other intermediaries.

NOTE: The IRD number submitted in the identifier field will **ALWAYS** be that of the business intermediary and NOT that of the client list.

3.3.2 Response


```
<n1:delinkResponse
        xmlns:cmn="urn:www.ird.govt.nz/GWS:types/Common.v2"
        xmlns:n1="urn:www.ird.govt.nz/GWS:types/Intermediation.v1">
        <cmn:statusMessage>
                <cmn:statusCode>0</cmn:statusCode>
                <cmn:errorMessage> </cmn:errorMessage>
                <cmn:errorDescription> </cmn:errorDescription>
        </cmn:statusMessage>
     <n1:clientListID IdentifierValueType="IRD">123123123</n1:clientListID>
        <n1:client>
                <n1:clientID IdentifierValueType="ACCIRD">123321125</n1:clientID>
                <n1:clientAccountType>GST</n1:clientAccountType>
        </n1:client>
</n1:delinkResponse>
```


Field	Required	Description
clientListID	Required	This field is the identifier for the client list. The identifier value types expected here can be found in the appendix
clientID	Required	This field is the identifier for the client that was linked to.
clientAccountType	Optional	This field is the account that was linked. This field will not be provided if the link request was to establish a customer master.

NOTE: All values returned here should match the values submitted in the request. Pending links can be cancelled with a delink call for payroll bureaus and other representatives.

3.4 RetrieveClient

The RetrieveClient operation will be used to retrieve the attributes of a client relationship. If there are multiple links for the designated client and a client account type is not provided then all links will be retrieved. All links returned by this operation will be active links but the accounts they are linked to may be ceased.

3.4.1 Request

```
<n1:retrieveClientRequest
        xmlns:cmn="urn:www.ird.govt.nz/GWS:types/Common.v2"
        xmlns:n1="urn:www.ird.govt.nz/GWS:types/Intermediation.v1">
        <cmn:statusMessage>
                <cmn:statusCode>0</cmn:statusCode>
                <cmn:errorMessage> </cmn:errorMessage>
                <cmn:errorDescription> </cmn:errorDescription>
        </cmn:statusMessage>
        <cmn:identifier IdentifierValueType="IRD">123123123</cmn:identifier>
        <n1:client>
                <n1:clientID IdentifierValueType="ACCIRD">111111112</n1:clientID>
                <n1:clientAccountType>GST</n1:clientAccountType>
        </n1:client>
</n1:retrieveClientRequest>
```

```
<n1:retrieveClientRequest
        xmlns:cmn="urn:www.ird.govt.nz/GWS:types/Common.v2"
        xmlns:n1="urn:www.ird.govt.nz/GWS:types/Intermediation.v1">
        <cmn:statusMessage>
                <cmn:statusCode>0</cmn:statusCode>
                <cmn:errorMessage> </cmn:errorMessage>
                <cmn:errorDescription> </cmn:errorDescription>
        </cmn:statusMessage>
        <cmn:identifier IdentifierValueType="IRD">123123120</cmn:identifier>
        <n1:client>
                <n1:clientID IdentifierValueType="IRD">111111112</n1:clientID>
        </n1:client>
</n1:retrieveClientRequest>
```

Field	Required	Description
clientID	Required	This field is the identifier for the client that is linked to.
clientAccountType	Optional	This field is to narrow a request down to a particular linked account. If this field is not provided then all links to this client will be returned.

NOTE: The IRD number submitted in the identifier field will **ALWAYS** be that of the business intermediary and NOT that of the client list.

3.4.2 Response

```
<n1:retrieveClientResponse xmlns:cmn="urn:www.ird.govt.nz/GWS:types/Common.v2"
xmlns:n1="urn:www.ird.govt.nz/GWS:types/Intermediation.v1">
	<cmn:statusMessage>
		<cmn:statusCode>0</cmn:statusCode>
		<cmn:errorMessage> </cmn:errorMessage>
		<cmn:errorDescription> </cmn:errorDescription>
	</cmn:statusMessage>
	<n1:clientID IdentifierValueType="IRD">132123123</n1:clientID>
	<!--Tax Agent client examples-->
	<n1:link customerMaster="true">
		<n1:clientListID IdentifierValueType="LSTID">111111111</n1:clientListID>
		<n1:redirectMail>true</n1:redirectMail>
	</n1:link>
	<n1:link clientAccount="IPS">
		<n1:clientListID IdentifierValueType="LSTID">123133211</n1:clientListID>
		<n1:redirectMail>true</n1:redirectMail>
		<n1:redirectDisbursements>true</n1:redirectDisbursements>
	</n1:link>
	<!--Payroll Intermediary and Bookkeeper client example -->
	<n1:link clientAccount="EMP”>
		<n1:clientListID IdentifierValueType="LSTID">123133211</n1:clientListID>
		<n1:redirectMail>false</n1:redirectMail>
		<n1:redirectDisbursements>false</n1:redirectDisbursements>
	</n1:link>
	<!--Payroll Bureau and Other Rep client example-->
	<n1:link clientAccount="EMP" status=“PENDING”>
		<n1:clientListID IdentifierValueType="CLTLID">1080221</n1:clientListID>
		<n1:redirectMail>false</n1:redirectMail>
		<n1:redirectDisbursements>false</n1:redirectDisbursements>
	</n1:link>
	<n1:link clientAccount="EMP" status=“APPROVED”>
		<n1:clientListID IdentifierValueType="CLTLID">1083061</n1:clientListID>
		<n1:redirectMail>false</n1:redirectMail>
		<n1:redirectDisbursements>false</n1:redirectDisbursements>
	</n1:link>
</n1:retrieveClientResponse>
```

Field	Required	Description
clientID	Required	This field is the identifier for the client that is linked to.
clientAccount	Optional	This attribute will display the account type of the client link. This attribute will only be displayed if it is an account level link.
clientListID	Required	This field is the identifier for the client list. The identifier value types expected here can be found in the appendix.
redirectMail	Required	This field shows the current redirect mail flag set on the given link.
redirectDisbursements	Optional	This field shows the current redirect disbursements flag set on the given link. This will not be returned if it is a customer master link.

Field	Required	Description
customerMaster	Optional	This attribute designates that the link is a customer level link establishing a customer master relationship. This will not be returned if the link is an account level link.
status	Optional	This field is for payroll bureaus and other representatives. If a link to a client has been requested but not approved yet, this attribute will be supplied as PENDING. Once approved the status will return APPROVED.

NOTE: While some restricted users may have view access to particular clients, they do not have the access to run the RetrieveClient operation.

3.5 Update

The Update operation will be used to update an existing relationship between a business intermediary and a client. Most fields in this request are optional and should be supplied if those fields are intended to be updated. If the desired outcome of the update is to change the source of the client link from one client list to another then ALL optional fields need to be provided or else defaults will be assigned, and the existing link attributes will not be preserved.

3.5.1 Request


```
<n1:updateRequest
        xmlns:cmn="urn:www.ird.govt.nz/GWS:types/Common.v2"
        xmlns:n1="urn:www.ird.govt.nz/GWS:types/Intermediation.v1">
                <cmn:statusCode>0</cmn:statusCode>
                <cmn:errorMessage> </cmn:errorMessage>
                <cmn:errorDescription> </cmn:errorDescription>
        </cmn:statusMessage>
        <cmn:identifier IdentifierValueType="IRD">123123120</cmn:identifier>
        <n1:clientListID IdentifierValueType="LSTID">123123123</n1:clientListID>
        <n1:target>
                <n1:clientID IdentifierValueType="ACCIRD">123321125</n1:clientID>
                <n1:clientAccountType>GST</n1:clientAccountType>
        </n1:target>
        <n1:redirectMail>true</n1:redirectMail>
        <n1:redirectDisbursements>true</n1:redirectDisbursements>
        <n1:updateCustomerMaster>true</n1:updateCustomerMaster>
        <n1:newClientListID IdentifierValueType="LSTID">123123456</n1:newClientListID>
</n1:updateRequest>
```


Field	Required	Description
clientListID	Required	This field is the identifier for the client list. The identifier value types expected here can be found in the appendix.
clientID	Required	This field is the identifier for the client that is being updated.
clientAccountType	Optional	This field is the account that is currently linked. This field will not be provided if the link request is to update a customer master.
redirectMail	Optional	This field is used to update the redirect mail flag. If the update request is not intended to change this field then this field should not be submitted.
redirectDisbursements	Optional	This field is used to set the redirect disbursements flag on a link. This can only be done on account links and not for customer master links. Redirect disbursements can **only** be used if a refund account has been setup on the source client list.
updateCustomerMaster	Required	This field is to designate whether the requested update is for a customer master link or not. This action is only accessible to tax agents and should always be false for all other intermediaries.
newClientListID	Optional	This field is used to change the source of the client link from one client list to another. If this action is

Field	Required	Description
		performed then all optional fields above should be supplied. Attributes of the existing link will not be preserved on the move from one list to another. If the new client list does not have proper settings (eg no refund account for redirect disbursements or different list type [see appendix]) then an error message will be returned.

NOTE: The IRD number submitted in the identifier field will **ALWAYS** be that of the business intermediary and NOT that of the client list.

Service behaviour note: The back-end updates for the Update operation is near real time. Updating links is resource-intensive and the speed of these actions will depend on the current queue of requests. Synchronous success responses will determine the request has been received but it does not mean that the back-end resource has been updated yet. No update should take longer than three minutes to be made.

3.5.2 Response

```
<n1:updateResponse
        xmlns:cmn="urn:www.ird.govt.nz/GWS:types/Common.v2"
        xmlns:n1="urn:www.ird.govt.nz/GWS:types/Intermediation.v1">
        <cmn:statusMessage>
                <cmn:statusCode>0</cmn:statusCode>
                <cmn:errorMessage> </cmn:errorMessage>
                <cmn:errorDescription> </cmn:errorDescription>
        </cmn:statusMessage>
        <n1:clientID IdentifierValueType="IRD">132112813</n1:clientID>
        <n1:link clientAccount="GST" status=”APPROVED”>
                <n1:clientListID IdentifierValueType="CLTLID">1082015</n1:clientListID>
                <n1:redirectMail>false</n1:redirectMail>
                <n1:redirectDisbursements>false</n1:redirectDisbursements>
         </n1:link>
</n1:updateResponse>
```

NOTE: It is recommended that the retrieveClient operation is used before the update call to ensure the correct link fields are being updated. All fields returned in the updateResponse are identical to the retrieveClientResponse. See retrieveClientResponse table for field descriptions. For business intermediaries that require client approval, the update operation will not require the client to approve the link again.

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

All schemas for the Intermediation service import a 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 /Intermediation/ namespace so it must be kept up-to-date, without numerous redundant versions remaining.

4.2 WSDLs

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

Note: The production URL above will not work until after onboarding with Inland Revenue.

All WSDL messages follow this naming convention:

```
Intermediation_<operation>_InputMessage or Intermediation_<operation>_OutputMessage

<wsdl:portType name=”Intermediation”>
            <wsdl:operation name=”RetrieveClientList”>
            <wsdl:operation name=”Link”>
            <wsdl:operation name=”Delink”>
            <wsdl:operation name=”RetrieveClient”>
            <wsdl:operation name=”Update”>
<wsdl:service name=”Intermediation”>
```

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 Intermediation.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, ReturnCommon.xsd and Intermediation.xsd. *See beginning of this section for instructions on where to find WSDLs for this service.*

5 Responses

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 response data for the given operation.

5.1 Generic Gateway response codes

The following response codes are common to all Gateway Service calls. This service applies framework security validation as follows, and the descriptions in the table below reflect that:

Standard codes	Standard message	Description	Customer level validation
-1	An unknown error has occurred	This is generally what will be returned for internal errors that are not due to the service request	Y
0	(Success)	Standard success code is 0	Y
1	Authentication failure	General authentication failure status. Could be the result of inability to validate security token.	Y
2	Missing authentication token(s)	Tokens were not included in the HTTP header as expected	Y
3	Unauthorised access	Access is not permitted for the requester to use the gateway services. Access could not be confirmed due to the failure of OAuth token validation. This could be due to invalid format of the token or infrastructure being unavailable.	Y
4	Unauthorised delegation	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: • The submitted cmn:identifier has an invalid value. • The identifier type (IdentifierValueType attribute on cmn:identifier) supplied is invalid. • All the values above are valid, but the provided OAuth token does not have delegated access to that customer or account. This service operation will NOT return this code if the filterAccountType supplied does not exist for that identifier, or the OAuth token does not have access for that specific account.	Y
5	Unauthorised vendor	The vendor code provided does not permit access—has not been onboarded for this operation	Y

Standard codes	Standard message	Description	Customer level validation
6	Authentication expired	(NOTE: Error code 6 is now deprecated and you will receive error code 1 when the authorisation token has expired.)	N/A
7	Account Type not supported	This code will be returned when an unsupported account types is requested. For retrieveClientList, an invalid or unsupported filterAccountType value might result in a 103 code as per the table below.	N
20	Unrecognised XML request	This could be due to the external sender sending in incorrect XML or it could be due to bad/poor/missing configuration	Y
21	XML request failed validation	The external requestor submitted XML that is not formatted according to our defined schemas.	Y
(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.	Y
(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.	Y

5.2 Generic Intermediation response codes

The following response codes are specific to Intermediation Gateway Service calls:

Standard codes	Standard message	Description
100	Could not extract data from XML payload	Could not extract data from XML payload
101	Tax agency IRD is not valid	The provided IRD number does not belong to a business intermediary
102	No client lists available for agent	The requesting agent has not been delegated access to any client lists
103	No client found for requested parameters	There are no client accounts for the request parameters provided. User and restricted user logons will also receive this if they don't have access.
104	No tax preparer indicator	The intermediary attempting to link does not have the proper preparer indicator
105	Invalid client list	The client list details provided do not resolve to a valid client list. This will only be returned to owner and administrator logons.
106	Client list doesn't allow refunds	The intended client list doesn't have a refund account to redirect disbursements
107	No existing customer master link	There is no customer master link to update
108	Insufficient client list access	The caller doesn't have access to the required client list. This will only be returned to owner and administrator logons.
109	Cannot redirect refunds on customer master	Customer master links do not allow the redirecting of refunds
110	Customer master requests cannot include client accounts	A client account cannot be provided when creating a customer master link
111	Account link must exist before customer master link	A customer master link cannot be created until a link to a client's account exists
112	New client list must be of the same client list type	The new client list must be of the same client list type
113	A customer master link already exists between this tax agent and client	A link already exists to the customer provided
114	Only tax agents can establish customer master links	Only business intermediaries can create a link to the customer master
115	A link to the client account already exists	A link already exists to the client's provided account
116	Tax preparer cannot redirect mail	The business intermediary cannot redirect the client's mail
117	Tax preparer cannot redirect refunds	The business intermediary cannot redirect the client's refunds

Standard codes	Standard message	Description
118	Invalid account type for intermediary link	Intermediaries cannot link to the specified account type
119	No update action provided	One of the redirect fields or a new client list must be provided in an Update call
120	Client account type required	If an account level link is being created then the account type must be provided
121	PAYE intermediary must redirect mail	PAYE Intermediaries are required to redirect mail
122	Redirect disbursements not allowed for account type	Tax agents are only allowed to redirect refunds from particular account types
123	PAYE client account has existing link	PAYE Intermediaries cannot link to an EMP account that already has a link of that type
124	Account link already requested and still awaiting approval	Account link already requested and still awaiting approval

6 Glossary

Acronym/term	Definition
API	Application Programming Interface—set of functions and procedures that allow applications to access the data or features of another application, operating system or other service.
Authentication	The process that verifies the identity of the party attempting to access Inland Revenue.
Authorisation	The process of determining whether a party is entitled to perform the function or access a resource.
Build Pack	Details the technical requirements and specifications, processes and sample payloads for the specified activity.
Client	As used in this build pack client generally refers to the party licensing and using the software intermediary/software provider's software.
Credentials	Information used to authenticate identity, for instance an account username and password.
Customer	A Customer is the party who is a tax payer or a participant in the social policy products that are operated by Inland Revenue. The Customer might be a person (an "individual") or a non-individual entity such as a company, trust, society etc. Practically all of the service interactions with Inland Revenue are about a Customer (eg their returns, accounts, entitlements etc) even though these interactions might be undertaken by an Intermediary such as a tax agent on their behalf.
Encryption	Cryptographic transformation of data (called "plaintext") into a form (called "cipher text") that conceals the data's original meaning to prevent it from being known or used. If the transformation is reversible, the corresponding reversal process is called "decryption", which is a transformation that restores encrypted data to its original state. [RFC 2828]
End points	A term used to describe a web service that has been implemented.
GWS	Gateway Services—the brand name for the suite of web services that Inland Revenue is providing. The Software intermediation service is a Gateway Service.
HTTP, HTTPS	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.
IP	Internet Protocol—the principal communication protocol in the Internet protocol suite for relaying datagrams across networks.
NZISM	NZ Information Security Manual—the security standards and best practices for Government agencies. Maintained by the NZ Government Communications Security Bureau (GCSB).
OAuth 2.0	OAuth 2.0 is an industry-standard protocol for authorisation.
Pattern	A constraint on data type values that require the string literal used in the data type's lexical space to match a specific pattern.

Acronym/term	Definition
Payloads	This refers to the data contained within the messages that are exchanged when a web service is invoked. Messages consist of a header and a payload.
Schemas	An XML schema defines the syntax of an XML document, in particular of a payload. The schema specifies what a valid payload must/can contain, as well as validating the payload.
SHA	Secure Hashing Algorithm. There is a family of these that provide different strengths. SHA-2 is currently favoured over SHA-1, which has been compromised.
Software provider	The organisation developing the software connecting to Inland Revenue gateway services (also known as software intermediary, software developer or service provider).
Software provider software	A client application is an operating instance of software that is deployed in one or more sites. A number of deployment patterns are possible: 1. A single cloud-based instance with multiple tenants and online users 2. An on-premises instance (such as an organisation's payroll system) 3. A desktop application with an online user. This is the computer software that contains interfaces to consume the services that Inland Revenue exposes. Software is developed and maintained by a software developer and subsequently deployed as one or more client applications.
SFTP	Secure File Transport Protocol. SFTP 3.0 is used.
Solution	The technology components, systems and interface specifications constituting the Tax Agent Web Services capability which enables integration and communication across the gateway channel between Inland Revenue and tax agents for the purpose of providing the service.
SOAP	Simple Object Access Protocol—a set of standards for specifying web services. Gateway Services uses SOAP version 1.2.
SSL	Secure Sockets Layer certificates—used to establish an encrypted connection between a browser or user's computer and a service or website.
START	Simplified Taxation and Revenue Technology—Inland Revenue's new core tax processing application. It is an implementation of the GenTax product from FAST Enterprises.
Tax agent	A tax agent who is formally registered as such with Inland Revenue.
TDS	Transaction Data Services.
TLS1.2	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.
URL	Universal Resource Locator—also known as a web address.

Acronym/term	Definition
User	The user referred to in this document is the user of the software provider accounting or tax package. This user needs delegated permissions on customer tax accounts (potentially via a tax agency or other intermediary) in order to use TDS. The web logon used in eServices needs to be used in making Inland Revenue queries. This web logon must be granted permission there to access customer accounts.
WSDL	Web Service Definition Language—an XML definition of a web service interface.
X.509 certificate	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 keystore. The recipient can then use this key to encrypt and sign the messages that they exchange with this counterparty.
XIAMS	External IAMS—an instance of IAMS that authenticates and authorises access by external parties, for example customers, trading partners etc, as opposed to internal parties such as staff.
XML	eXtensible Mark-up 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.
XSD	XML Schema Definition—the current standard schema language for all XML data and documents

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7 Appendix

7.1 Expected values

7.1.1 Client list ID types

List ID type	ID description	Available for tax agents	Available for payroll intermediaries	Available for payroll bureaus	Available for bookkeepers	Available for others
CLTLID	Client List Identifier	No	No	Yes	Yes	Yes
LSTID	List Identifier	Yes	Yes	No	No	No
IRD	IRD Number	Yes	Yes	No	No	No

NOTE: In the past, Inland Revenue has assigned and identified client lists by IRD numbers. This has changed as part of the Business Transformation Programme and the two new client list ID types above will now be used. While older client lists can be referenced by an IRD number, the use of LSTID is encouraged to prepare for a future state in which the IRD client list ID type is no longer supported.

7.1.2 Client list type

List type	List description
TAXCLI	Tax Agent Client List
BKPCLI	Bookkeeper Client List
PRBCLI	Payroll Bureau Client List
PAYCLI	Payroll Intermediary Client List
OTHCLI	Other Representative Client List

7.1.3 Access levels

Access level	Access description
FILE	File access allows the filing of returns on behalf of the client for any linked accounts
NONE	None access restricts all information for any linked clients
VIEW	View access allows the viewing of all tax attributes, statuses and obligations on the linked client accounts
FULL	Full access allows the filing, payment and viewing of all account information and obligations on behalf of the linked client

NOTE: Web logons with the access level of ‘restricted user’ only have access to retrieve client lists through the Intermediation Service.

7.2 Active account types

The following active account types can be both submitted and returned by the Intermediation Service:

- AIL
- AIP
- MPO
- CAD
- CRS
- DWT
- EMP
- EQU
- ERA
- FAM
- FAT
- FBT
- FTR
- GMD
- GSD
- GST
- INC
- IPS
- LOD
- NRT
- PIE
- PRS
- RDI
- REB
- RLT
- RUL
- RSP
- RWT
- SLS
- TOD
- UCM

8 Change log

This table lists all concrete changes that have been made to this build pack document.

Date of change	Document section	Description
21/06/21	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
	7.2	'Active account types' moved into appendix
10/05/21	2.7	Added RSP to list of account types
	N/A	Common.v2.xsd updated
17/02/21	2.7	Updated list of applicable account types
27/05/20	3.5.1	Service behaviour note added
15/05/20	3.2, 3.3	Service behaviour note added
	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	Text added at end of section: *For updates to versions of the SOAP architecture including the communication standards, security and service end points please follow the links*

Date of change	Document section	Description
		provided in section 4.
	3	Updated hyperlink in boxed text at start of section
	4	Removed boxed instructions on where to find current end points, schemas and WSDLs and updated with new instructions.
	4.1	Text updated to this: *See instructions above for where to find end points for this service.*
	4.2	Note added: *See instructions at beginning of section 4 for where to find schemas for this service.*
	4.3	Removed redundant note at end of section regarding WSDLs. Added following text: *See beginning of section 4 for instructions on where to find WSDLs for this service.*
06/05/20	Front page	Version number corrected
30/04/20	2.3	Removed paragraph regarding XSD 'any' structure
	4.3	Removed references to development WSDLs
	2.4	Paragraph added regarding updates to SOAP architecture
	3.2	Sentence added: *It is worth noting that any existing EQU or ERA accounts will be automatically linked when linking to a client's income tax account.*
11/03/20	3.1, 3.4	Added "All links returned by this operation will be active links but the account they are linked to may be ceased."
09/03/20	2.7	Active account types RDI and RUL added
06/03/20	2.7	New section added: Active account types
	1.4	Note added to table of TLS requirements: NOTE: The same certificate cannot be used for the Test and Production environments.
	2.4	Information regarding TLS1.3 added
08/08/19	2.6	New section added: 'Delegated authority'
15/04/19	3	Bullet point added to proper use notes: • For most cases in the Intermediation Service the IdentifierValueType field will be IRD. However, if submitting a customer ID the value CST can be used.
12/04/19	Entire document	References to 'tax agent' changed to 'business intermediary'
	1.3	'Related build packs' section renamed to 'Related services' and wording modified.
	2.1	Diagram updated to say 'business intermediary'

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Date of change	Document section	Description
		instead of 'tax agent'
	3.5.2	Updated notes at end for payroll bureau and other rep service behaviour
	3.1.2	Updated sample response payload: • Changed clientIRD to ClientID • Added IdentifierValueType to ClientID • Added IdentifierValueType to response table
	3.2	Updated Link definition for payroll bureau and other reps requiring client link approval
	3.3.2	Updated notes at end for payroll bureau and other rep service behaviour
	3.4	Added note at the end regarding Restricted Users access to RetrieveClient operation
	3.4.2	Expanded responses to include examples for each intermediary type
	5.1	Error code 6 (Authentication expired) description changed
	5.2	Updated descriptions for error codes 103, 105 and 108
	7.1	Note added after client list ID type table
	7.3	Update description for NONE access level
19/03/19	5.2	Added error codes 119-124
	3.5.2	Added fields to updateResponse sample and added note below
	3	Description of IdentifierValueType in table removed: *"The ID type being submitted—most cases will be IRD."* Replaced with new description: *"The ID type being submitted for the tax preparer."*
	2.5	Add section 2.5 Information Security Obligation
	3.4.2, 3.2.2, 3.1.2	Added status field for Payroll Bureaus and Other intermediary types
	3.1.2	Added Payroll Bureau or Other Rep Response
26/02/19	3	Description of softwarePlatform in table removed: *"The software package that is making the request".* Replaced with new description: "The field value will be provided by Inland Revenue during the onboarding process."
18/02/19	5.2	Added error codes 113-118
	7.1	Added 'Available for others' column to table
	7.3	Note added to bottom of table

Date of change	Document section	Description
	3.1	Opening paragraph amended to include reference to client status
	3.1.2, 3.2.2	Payloads changed – 'pendingApproval' changed to 'status'
	All response payloads	References to 'accessLevel' removed from all response payloads
08/02/19	3.2, 3.4, 3.5	Removed all references to access type field
	3.1	Update operation description
	3.2	Update operation description
07/02/19	5.18	Added error codes 105, 107-115
18/01/19	1.3	Section on 'Transaction Data Services Overview and Transition Build Pack' removed from 'Related build packs' section
16/01/19	1.1	• Updated
	2.2	• Updated
	3.1	• Updated
	3.2	• 'Delink' section added
	3.3	• 'RetrieveClient' section added
	3.4	• 'Update' section added
	4.1, 4.2, 4.3	• End points, Schemas, WSDLs sections updated
	5	• Responses updated
	7	• Added "Expected Values" section
03/12/18	(formerly section 6)	• REMOVED: • Section on use cases and scenarios. Readers are instead advised to visit https://www.ird.govt.nz/software-providers/ for such information
	Table of contents	• Removed 'List of tables' and 'List of figures'
	Entire document	• Removed all 'table' and 'figure' captions
	1.1	• Removed *The associated onboarding documents (see sections 1.3 and 1.4, below) describe the end-to-end business-level solution, of which this build pack forms part.*
	1.1	• REMOVED: The associated onboarding and overview documents describe the end-to-end business level solution, of which this build pack forms part. Development versions of schemas, and sample requests and responses are also available with this build pack. • ADDED: Before you continue, please be sure to consult **http://www.ird.govt.nz/software-providers/** for the products that use this Service, business-level context and use cases, links to relevant policy, and information on

Date of change	Document section	Description
		how to integrate with Inland Revenue's products and services.
	(Formerly section 1.3)	• Removed section 1.3 'Supported onboarding packs'
	1.4	• Removed row from prerequisites table on Inland Revenue: ***INLAND REVENUE:*** *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.*
	3 4	• **Removed:** **IMPORTANT:** *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:* https://github.com/InlandRevenue/Gateway-Services **Replaced with:** **IMPORTANT** • The end points, schemas and WSDLs listed here are subject to change. For the authoritative definitions, please visit https://www.ird.govt.nz/software-providers/
19/11/2018	1.5.1	• Added section 1.5.1 to cover mutual TLS security and certificates
	7 Glossary and 8 Change log	• Removed word 'Appendix' from both headings
13/04/2018	2.4 Security	• Reworded delegation note at end of section
	Entire document	• Cosmetic/formatting changes