Inland Revenue
Te Tari Taake

Inland Revenue

Build pack: Return Service—Accounting Income Method

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Contents

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 Accounting Income Method (AIM) Return 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 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. The associated onboarding documents describe the end-to-end business level solution, of which this build pack forms part.

Before you continue, please be sure to consult
https://www.ird.govt.nz/software-providers/
for business-level context, relevant policy and legislation, use cases and information on how to engage with IR, including registration.

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 AIM Return Service.

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

1.3 Related build packs

The following Gateway Services build pack complements this one.

1.3.1 Identity and Access Services build pack

The Identity and Access (IAS) Services build pack describes the operations provided under Identity and Access Services, which is another part of the Gateway Services suite. These services are used to authenticate access. This build pack can be found here: https://github.com/InlandRevenue/Gateway-Services/tree/master/Service%20-%20Identity%20and%20Access/Latest

1.4 Prerequisites

Party	Requirement	Description
Service provider	Acquire a X.509 certificate from a competent authority for the Test and Production environments	This is required when using mutual TLS with cloud-based service providers.

1.4.1 Mutual Transport Layer Security and certificates

Mutual Transport Layer Security (TLS) is implemented for the AIM Return Service. This requires the use of a publicly-issued X509 certificate from one of the trusted Certificate Authorities. Inland Revenue does not issue certificates to external vendors for web service security implementations.

Inland Revenue has the following minimum requirements for accepting public X509 keys:

1. Minimum Key Length: 2048
2. Signature Algorithm: SHA256[RSA]
3. Self-signed certificates are not accepted
4. Certificates issued by a private/internal Certificate Authority are not accepted

In general, shorter-lived certificates offer a better security posture since the impact of key compromise is less severe but there is no minimum requirement for certificate expiry periods.

Below is a list for examples of Certificate Authority providers with no recommendations or rankings incorporated. It is recommended that a business researches which Certificate Authority meets their requirements.

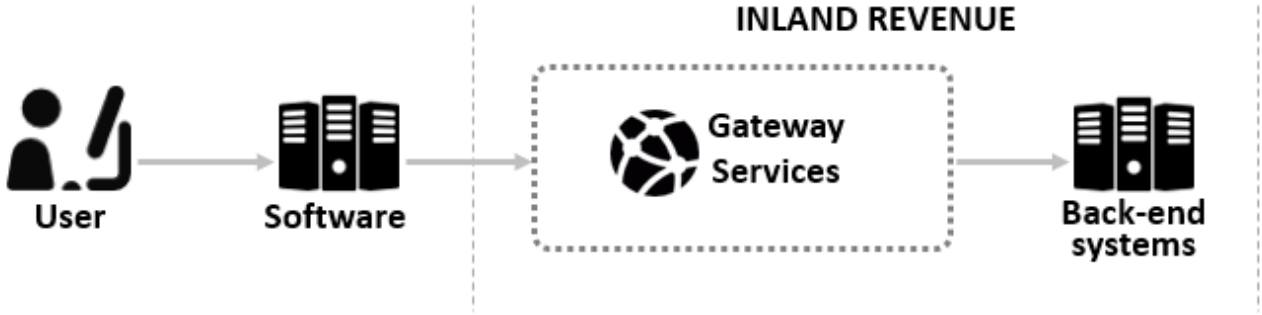
- Comodo
- GeoTrust
- DigiCert
- GlobalSign
- Symantec
- Thawte
- IdenTrust
- Entrust
- Network Solutions
- RapidSSL
- Entrust Datacard
- GoDaddy.

2 Solution design

2.1 Architecture

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

The diagram below illustrates the flow of data from the user 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

The AIM Return Service supports the following operations:

- **File:** This service is used to submit a return to Inland Revenue for a customer.
- **Prepop:** This service is used by software to provide figures to assist in the calculation and display of return information prior to submission.
- **RetrieveStatus:** This service is used by software to return a status for a particular return.
- **RetrieveReturn:** This service retrieves a previously submitted return and the values associated to that return.
- **RetrieveFilingObligation:** This service retrieves the expectations for a customer to file a return.

2.3 Messaging

All SOAP messages require a SOAP header containing **To:** and **Action:** parameters, as well as a SOAP body containing a structured XML payload. Please refer to the WSDL for the correct addresses.

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/Returns/"
        xmlns:prep="https://services.ird.govt.nz/GWS/Returns/:types/PrepopRequest"
        xmlns:a="http://www.w3.org/2005/08/addressing">
    <soap:Header>
        <a:To>https://services.ird.govt.nz/Gateway/GWS/Returns</a:To>
        <a:Action>https://services.ird.govt.nz/GWS/Returns/Return/Operation</a:Action>
    </soap:Header>
    <soap:Body>
        <ret:Prepop>
            <ret:ReturnPrepopRequestMsg>
                <prep:PrepopRequestWrapper>
                    <rc:formInfoRequest xmlns:xsi…
                        <…PrepopFields…>
                    </rc:formInfoRequest>
                </prep:PrepopRequestWrapper>
            </ret:ReturnPrepopRequestMsg>
        </ret:Prepop>
    </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/Returns/Return/FileResponse
        </a:Action>
    </s:Header>
    <s:Body>
        <FileResponse xmlns="https://services.ird.govt.nz/GWS/Returns/">
        <FileResult xmlns:b=https://services.ird.govt.nz/GWS/Returns/:types/FileResponse
        xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
            <b:FileResponseWrapper>
                <fileResponse xmlns="urn:www.ird.govt.nz/GWS:types/Common.v1">
                    <statusMessage>
                        <statusCode>0</statusCode>
                        <errorMessage/>
                    </statusMessage>
                </fileResponse>
            </b:FileResponseWrapper>
        </FileResult>
        </FileResponse>
    </s:Body>
</s:Envelope>
```

2.4 Security

Gateway Services requests are access-controlled using an OAuth token that identifies the user making the request. Users will authenticate using their Inland Revenue myIR credentials. For instructions on how to acquire an OAuth token, review the Identity and access build pack. For TDS Real Time web service requests, an OAuth access token is required in the HTTP header.

Authorisation for using the Gateway Services is defined in the permissions set in myIR. Permissions will reflect those granted in myIR. For example, if a 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 Gateway Services use an HTTPS transport layer, with HTTP1.1 transport protocol supported.

The Gateway Services also use the SOAP version 1.2 protocol.

The SOAP Service contract is published using WSDL version 1.1.

Transport layer encryption is mandatory and Gateway Services generally use the TLS version 1.2 specification.

Inland Revenue requires the following ciphers and key strengths to be used:

Encryption:	Advanced Encryption Standard (AES)	FIPS 197	256-bit key
Hashing:	Secure Hash Algorithm (SHA-2)	FIPS 180-3	SHA-256

There will be 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 involve mutual TLS certificates that need to be exchanged during the onboarding phase. 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,** there is a separate end point that does not use mutual TLS. For this service, certificates do not need to be exchanged during onboarding. 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
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 different client_id/client_secret credentials to cloud application clients

	End point for cloud-based connections	End point for desktop connections
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

Delegated permissions: The services will allow one to retrieve all of the data for a customer that the calling user (as represented by the OAuth token) has access to. There may be additional accounts this identity does not have access to, those will not be mentioned. If an account or data in it is targeted by the request parameters but the user does not have permission an error will be returned. This access will depend on delegation permissions set up in myIR. If the token represents a user in a tax agency or other intermediary, then the agent-client linking is also considered.

3 Operations

IMPORTANT
The schemas and WSDLs listed here are subject to change.
For the authoritative definitions, please visit
https://www.ird.govt.nz/software-providers/

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

This section contains schema aliases:

- Cmn: Common.xsd
- Rc: ReturnCommon.xsd
- R: ReturnAIM.xsd

NOTE: Some requests and responses live in ReturnCommon.xsd but can still be generated from an inheriting return-specific XSD. This could mean the schemaLocation could be different, depending on where the payload was generated from. Any method of generating these payloads is accepted. This applies to the fileResponse XML directly below.

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

The response structure for all File requests will have the **gatewayId** field populated. The gatewayId is a unique identifier passed back in the responseBody, assuming the response code for the request is zero (refer to Chapter 5 Responses). The gatewayId should be recorded and can be used by technical teams for troubleshooting. The gatewayId will not appear in search results when searching myIR. The gatewayId is also not available to Inland Revenue front-line staff (such as in the telephone contact centre) to search on.

For example:

```
<fileResponse xmlns="urn:www.ird.govt.nz/GWS:types/ReturnCommon.v1">
        <StatusMessage xmlns="urn:www.ird.govt.nz/GWS:types/Common.v1">
            <statusCode>0</statusCode>
            <errorMessage></errorMessage>
        </StatusMessage>
        <responseBody>
            <gatewayId>0000 002J ZJ5N 6</gatewayId>
        </responseBody>
</fileResponse>
```

All operations for the Return 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>v1</cmn:softwareRelease>
</cmn:softwareProviderData>
<cmn:identifier IdentifierValueType="ACCIRD">012345678</cmn:identifier>
<cmn:accountType>INC</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. This can be ACCIRD, NZBN or ACCID. 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.
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 (INC, IIT, ITN).

Proper use:

- The only softwareProviderData fields users will be able to input are the ones that were provided to Inland Revenue at the time of on-boarding.
- The identifier is that of the tax payer on whose behalf the operations are being performed.

Example scenario:

- Third party with IRD 898989898 submits for client IRD 121212121
    - Third party calls /Returns/File/ with
      <cmn:identifier IdentifierValueType="ACCIRD">121212121</cmn:identifier>

3.1 File

The File operation will be used to submit all AIM returns.

Base structure:

```
<r:fileRequest namespaces...>
    <rc:fileHeader>...</rc:fileHeader>
    <rc:fileBody>
      <rc:standardFields>
      <rc:formFields xsi:type="r:FormFieldsType">
            <...tax specific fields...>
      </rc:formFields>
    </rc:fileBody>
</r:fileRequest>
```

Field	Description
fileHeader	The standard header for File requests
fileBody	The standard body structure for File requests
standardFields	A group of standard fields
formFields	A wrapper that will contain tax form-specific fields

<**FileHeader**> structure:

```
<r:fileRequest namespaces...>
    <rc:fileHeader>
        <cmn:softwareProviderData>
            <cmn:softwareProvider>Software1</cmn:softwareProvider>
            <cmn:softwarePlatform>Software1Package</cmn:softwarePlatform>
            <cmn:softwareRelease>v1</cmn:softwareRelease>
        </cmn:softwareProviderData>
        <cmn:identifier IdentifierValueType="ACCIRD">012345678</cmn:identifier>
        <cmn:accountType>INC</cmn:accountType>
        <rc:periodEndDate>2018-04-30</rc:periodEndDate>
        <rc:majorFormType>SOA</rc:majorFormType>
    </rc:fileHeader>
    <rc:fileBody>
        <rc:standardFields>
        <rc:formFields xsi:type="r:FormFieldsType">
            <...tax specific fields...>
        </rc:formFields>
    </rc:fileBody>
</r:fileRequest>
```

Field	Requirement	Description
periodEndDate	Required	The period in which a return exists or the period for which it is being submitted. An AIM Statement of Activity will cover a one or two-month period. The period end date for the Statement of Activity refers to the last day of the period covered by that statement. For example, for a Statement of Activity covering the two-month period of April and May 2019, the period end date is 31/05/19.
majorFormType	Required	The form type (SOA)

Example scenario:

- Attempting to submit a AIM SOA for the 2018-April period.

```
<cmn:accountType>INC</cmn:accountType>
<rc:periodEndDate>2018-04-30</rc:periodEndDate>
<rc:majorFormType>SOA</rc:majorFormType>
```

<**FileBody**> structure:

```
<r:fileRequest namespaces...>
    <rc:fileHeader>...</rc:fileHeader>
    <rc:fileBody>
        <rc:standardFields>
        <rc:formFields xsi:type="r:FormFieldsType">
            <...tax specific fields...>
        </rc:formFields>
    </rc:fileBody>
</r:fileRequest>
```

FileBody is simply the wrapper of standardFields and formFields. The standard fields will be constant in every fileBody, but the formFields will be overridden by each tax type.

<**StandardFields**> structure:

```
<r:fileRequest namespaces...>
    <rc:fileHeader>...</rc:fileHeader>
    <rc:fileBody>
        <rc:standardFields>
            <rc:isNilReturn>false</rc:isNilReturn>
            <rc:amendmentRequest>
                <rc:isAmended>false</rc:isAmended>
                <rc:amendReason></rc:amendReason>
                <rc:amendDetails></rc:amendReason>
            </rc:amendmentRequest>
            <rc:creditTransferRequest>
                <rc:transferIRD></rc:transferIRD>
                <rc:transferAccountType></rc:transferAccountType>
                <rc:transferFilingPeriod></rc:transferFilingPeriod>
                <rc:associatedCustomer></rc:associatedCustomer>
                <rc:transferAmount></rc:transferAmount>
            </rc:creditTransferRequest>
        </rc:standardFields>
        <rc:formFields xsi:type="r:FormFieldsType">
            <...tax specific fields...>
```

```
            </rc:formFields>
        </rc:fileBody>
    </r:fileRequest>
```

Field	Requirement	Description
isNilReturn	Required	This allows for a nil return to be submitted
isAmended	Required	This allows for a return to be filed as an amendment. NOTE: If isAmended=true then amendReason and amendDetails are required.
amendReason	Optional	This is attached to the amendmentRequest as the reason for the amendment. This can be either KEY (incorrect amount), MATH (calculation error), OTHER, or TRNSPO (transposition error).
amendDetails	Optional	This allows for any further details on the amendmentRequest.
creditTransferRequest	Optional	These fields can be added to transfer the refund to another START account. Any number of credit transfers from 0 to 10 can be submitted for every file operation.

Proper uses:

- Most standard submissions will require isNilReturn to be *false* and isAmended to be *false.*

Example scenario:

- Attempting to amend an AIM return due to lack of information from client.
  <rc:isNilReturn>false</rc:isNilReturn>
  <rc:isAmended>true</rc:isAmended>
  <rc:amendReason>KEY</rc:amendReason>
  <rc:amendDetails>Client's previous months' income changed after initial filing</rc:amendDetails>

<**FormFields**> structure (for AIM):

```
<r:fileRequest xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
        xmlns:cmn="urn:www.ird.govt.nz/GWS:types/Common.v1"
        xmlns:r="urn:www.ird.govt.nz/GWS:types/ReturnAIM.v1"
        xmlns:rc="urn:www.ird.govt.nz/GWS:types/ReturnCommon.v1"
        xsi:schemaLocation="urn:www.ird.govt.nz/GWS:types/ReturnAIM.v1">
        <rc:fileHeader>…</rc:fileHeader>
        <rc:fileBody>
                <rc:standardFields/>
                <rc:formFields xsi:type="r:FormFieldsType">
                        <r:aimInstalmentDate/>
                        <r:grossSalesAndServiceIncome/>
                        <r:openingStock/>
                        <r:purchases/>
                        <r:closingStock systemAdjustedValue="" userAdjustedValue=""/>
                        <r:grossProfit/>
                        <r:interestReceived/>
                        <r:dividendsReceived/>
```

```
                <r:rentLeaseLicenceIncome/>
                <r:otherIncome/>
                <r:badDebts/>
                <r:depreciationAndAmortisation/>
                <r:insurance/>
                <r:interestExpense/>
                <r:fees/>
                <r:rates/>
                <r:rentsLeasesLicences/>
                <r:repairsAndMaintenance/>
                <r:researchAndDevelopment/>
                <r:relatedPartyRemuneration/>
                <r:salariesAndWages/>
                <r:contractorPayments/>
                <r:otherExpenses/>
                <r:exceptionalItems/>
                <r:netProfitLossBeforeTax/>
                <r:taxAdjustments/>
                <r:currentYearTaxableProfitLoss/>
                <r:accountsReceivable systemAdjustedValue="" userAdjustedValue=""/>
                <r:cashAndDeposits/>
                <r:otherCurrentAssets/>
                <r:vehicles/>
                <r:plantAndMachinery/>
                <r:furnitureAndFittings/>
                <r:land/>
                <r:buildings/>
                <r:otherFixedAssets/>
                <r:intangibles/>
                <r:sharesAndOwnershipInterests/>
                <r:termDeposits/>
                <r:otherNonCurrent/>
                <r:provisions systemAdjustedValue="" userAdjustedValue=""/>
                <r:provisionsForShareholderSalaries systemAdjustedValue=""
userAdjustedValue=""/>
                <r:accountsPayable systemAdjustedValue userAdjustedValue=""/>
                <r:currentLoans/>
                <r:otherCurrentLiabilities/>
                <r:nonCurrentLiabilities/>
                <r:ownersEquity/>
                <r:taxDepreciation systemAdjustedValue="" userAdjustedValue=""/>
                <r:unTaxedRealisedGainsAndReceipts/>
                <r:additionsToFixedAssets/>
                <r:disposalOfFixedAssets/>
                <r:depreciationRecovered systemAdjustedValue=""
userAdjustedValue=""/>
                <r:losses />
                <r:privateUse systemAdjustedValue="" userAdjustedValue=""/>
                <r:dividendsPaid/>
                <r:drawings/>
                <r:currentAccountYearEndBalances/>
                <r:taxDeductibleLossOnDisposalOfFixedAssets/>
                <r:otherAdjustments>
                    <r:adjustments>
                        <r:amount/>
                        <r:description/>
                    <r:adjustments/>
                 <r:otherAdjustments/>
                <r:yearToDateProvTaxLiability/>
                <r:thisInstalment/>
                <r:shareholderProvTax/>
                <r:refundAmount/>
                <r:refundIndicator/>
```

```
            </rc:formFields>
        </rc:fileBody>
</r:fileRequest>
```

Attribute	Description
systemAdjustedValue	If the system has adjusted the value, the adjustment value should be placed here. The old value will be placed between the field tags.
userAdjustedValue	If the customer has overridden the system calculated adjustment, the adjustment value entered by the customer should be placed here.
shareholderProvTax	This field should be left blank. It is intended that this field will enable companies to communicate the amount of provisional tax (if any) they have paid on behalf of shareholders based on proposed future enhancements to the AIM method.
refundAmount	This value is how much has been requested to be refunded. This amount should be set as 0 unless refundIndicator is set to true. If refundIndicator is set to true and refundAmount is set to 0, the entire amount in the account will be refunded.
refundIndicator	This field indicates if a balance on the account should be refunded.

The otherAdjustment field is used for any adjustment with no specific field defined. There is a minimum of zero additional adjustments and a maximum of 20 additional adjustments.

For credit transfers, use creditTransferRequest fields in the standardFields portion of the payload.

If the refundIndicator is false and there is no credit transfer request, then the default operation is to hold the entire amount.

At the end of this document there are a number of sample scenarios that illustrate how to manage overpayments.

3.2 Prepop

The Prepop operation will be used to acquire a specific subset of fields for a given return. This operation uses the <retrieveFormInfoRequest> structure for the request which will have a unique response across tax types.

<**retrieveFormInfoRequest**> structure:

```
<rc:formInfoRequest xmlns:cmn="urn:www.ird.govt.nz/GWS:types/Common.v1"
                    xmlns:rc="urn:www.ird.govt.nz/GWS:types/ReturnCommon.v1"
                    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
                    xsi:schemaLocation="urn:www.ird.govt.nz/GWS:types/ReturnCommon.v1">
        <cmn:softwareProviderData>
                <cmn:softwareProvider>SoftwareCompany</cmn:softwareProvider>
                <cmn:softwarePlatform>SoftwarePlatform</cmn:softwarePlatform>
                <cmn:softwareRelease>V1.1</cmn:softwareRelease>
        </cmn:softwareProviderData>
```

```
        <cmn:identifier IdentifierValueType="ACCIRD">123456789</cmn:identifier>
        <cmn:accountType>INC</cmn:accountType>
        <rc:periodEndDate>2018-04-30</rc:periodEndDate>
        <rc:majorFormType>SOA</rc:majorFormType>
</rc:formInfoRequest>
```

When using the pre-population service for AIM, the tax type will be INC and the majorFormType will be SOA (for Statement of Activity). The response body will only be populated if the customer is eligible for AIM.

<**prepopResponse**> structure:

```
<prepopResponse xmlns="urn:www.ird.govt.nz/GWS:types/ReturnCommon.v1">
        <statusMessage xmlns="urn:www.ird.govt.nz/GWS:types/Common.v1">
                <statusCode>0</statusCode>
                <errorMessage>Success</errorMessage>
        </statusMessage>
        <responseBody xmlns:r="urn:www.ird.govt.nz/GWS:types/ReturnAIM.v1"
                        xsi:type="r:PrepopResponseBodyType">
                <r:irdNumber>123456789</r:irdNumber>
                <r:filingFrequency>Two Monthly Odd</r:filingFrequency>
                <r:returnPeriodDate>2019-03-31</r:returnPeriodDate>
                <r:returnType>IR4</r:returnType>
                <r:balanceDate>2019-03-31</r:balanceDate>
                <r:periodBalance>1000.54</r:periodBalance>
                <r:residualIncomeTax>222</r:residualIncomeTax>
                <r:totalLossCarriedForward>555</r:totalLossCarriedForward>
        </responseBody>
</prepopResponse>
```

Field	Requirement	Description
irdNumber	Required	The IRD number for the customer
filingFrequency	Required	The filing frequency of the statement of activity
returnPeriodDate	Required	The period of the statement
returnType	Required	The income tax return type
balanceDate	Required	The income tax balance date
periodBalance	Required	The income tax period balance
residualIncomeTax	Required	The income tax residual income tax
totalLossCarriedForward	Required	The income tax total losses carried forward

3.3 RetrieveStatus

The RetrieveStatus operation will allow the status of a given return to be queried. The request and response structures are the same for all tax types.

<**retrieveFormInfoRequest**> structure:

```
<rc:formInfoRequest xmlns:cmn="urn:www.ird.govt.nz/GWS:types/Common.v1"
                    xmlns:rc="urn:www.ird.govt.nz/GWS:types/ReturnCommon.v1"
                    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
                    xsi:schemaLocation="urn:www.ird.govt.nz/GWS:types/ReturnAIM.v1">
        <cmn:softwareProviderData>
                    <cmn:softwareProvider>SoftwareCompany</cmn:softwareProvider>
                    <cmn:softwarePlatform>SoftwarePlatform</cmn:softwarePlatform>
                    <cmn:softwareRelease>V1.1</cmn:softwareRelease>
        </cmn:softwareProviderData>
        <cmn:identifier IdentifierValueType="ACCIRD">123456789</cmn:identifier>
        <cmn:accountType>INC</cmn:accountType>
        <rc:periodEndDate>2018-04-30</rc:periodEndDate>
        <rc:majorFormType>SOA</rc:majorFormType>
</rc:formInfoRequest>
```

<**retrieveStatusResponse**> structure:

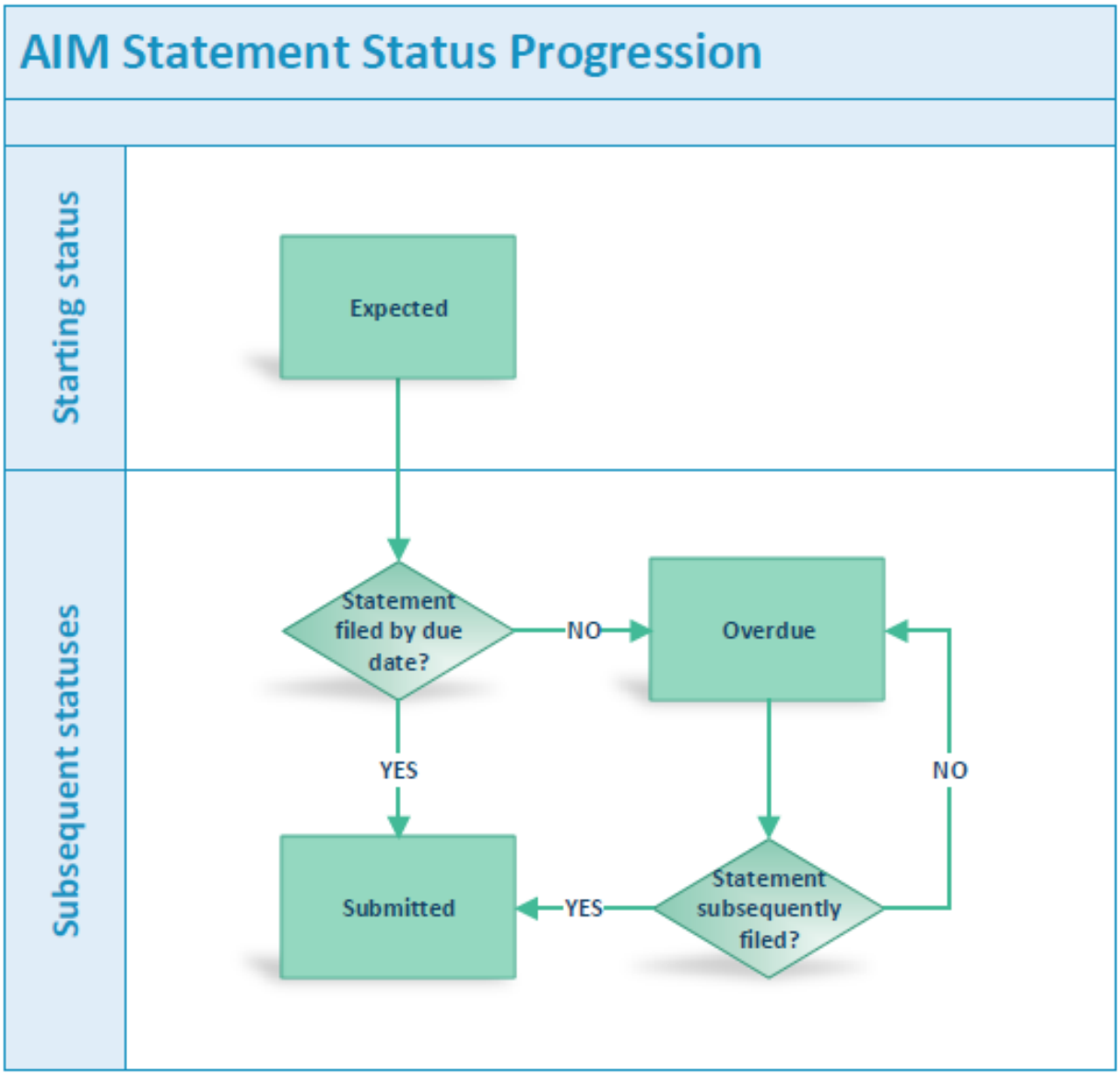
```
<retrieveStatusResponse xmlns="urn:www.ird.govt.nz/GWS:types/ReturnCommon.v1">
        <statusMessage xmlns="urn:www.ird.govt.nz/GWS:types/Common.v1">
                    <statusCode>0</statusCode>
                    <errorMessage>Success</errorMessage>
        </statusMessage>
        <responseBody>
                    <status>Submitted</status>
        </responseBody>
</statusResponse>
```

Although submitted via the Return Service, an AIM Statement is not a return and therefore only a subset of the available statuses apply for an AIM Statement.

The following three statuses apply for checking RetrieveStatus for AIM:

Status	Description
Expected	This status is displayed when the filing period has a generated return expectation
Overdue	This status is displayed when the Statement of Activity is overdue
Submitted	This status is displayed when the Statement of Activity is submitted by the customer.

This diagram outlines the process flow of the statuses listed in the table above.



3.4 RetrieveReturn

The retrieveReturn operation allows for any previously-submitted return to be viewed.

<**retrieveFormInfoRequest**> structure:

```
<rc:formInfoRequest xmlns:cmn="urn:www.ird.govt.nz/GWS:types/Common.v1"
                    xmlns:rc="urn:www.ird.govt.nz/GWS:types/ReturnCommon.v1"
                    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
                    xsi:schemaLocation="urn:www.ird.govt.nz/GWS:types/ReturnAIM.v1">
        <cmn:softwareProviderData>
                    <cmn:softwareProvider>SoftwareCompany</cmn:softwareProvider>
                    <cmn:softwarePlatform>SoftwarePlatform</cmn:softwarePlatform>
                    <cmn:softwareRelease>V1.1</cmn:softwareRelease>
        </cmn:softwareProviderData>
        <cmn:identifier IdentifierValueType="ACCIRD">123456789</cmn:identifier>
        <cmn:accountType>INC</cmn:accountType>
        <rc:periodEndDate>2018-04-30</rc:periodEndDate>
        <rc:majorFormType>SOA</rc:majorFormType>
</rc:formInfoRequest>
```

<**retrieveReturnResponse**> structure:

```
<retrieveReturnResponse xmlns="urn:www.ird.govt.nz/GWS:types/ReturnCommon.v1">
        <statusMessage xmlns="urn:www.ird.govt.nz/GWS:types/Common.v1">
                <statusCode>0</statusCode>
                <errorMessage>Success</errorMessage>
        </statusMessage>
        <responseBody xmlns:r="urn:www.ird.govt.nz/GWS:types/ReturnAIM.v1"
                      xsi:type="r:RetrieveReturnResponseBodyType">
           <r:standardFields>
                 <isNilReturn xmlns="urn:www.ird.govt.nz/GWS:types/ReturnCommon.v1"/>
           </r:standardFields>
           <r:formFields>
                      <r:aimInstalmentDate></r:aimInstalmentDate>
                      <r:grossSalesAndServiceIncome></r:grossSalesAndServiceIncome>
                      <r:openingStock></r:openingStock>
                      <r:purchases></r:purchases>
                      <r:closingStock systemAdjustedValue="" userAdjustedValue=""></r:closingStock>
                      <r:grossProfit></r:grossProfit>
                      <r:interestReceived></r:interestReceived>
                      <r:dividendsReceived></r:dividendsReceived>
                      <r:rentLeaseLicenceIncome></r:rentLeaseLicenceIncome>
                      <r:otherIncome></r:otherIncome>
                      <r:badDebts></r:badDebts>
                      <r:depreciationAndAmortisation></r:depreciationAndAmortisation>
                      <r:insurance></r:insurance>
                      <r:interestExpense></r:interestExpense>
                      <r:fees></r:fees>
                      <r:rates></r:rates>
                      <r:rentsLeasesLicences></r:rentsLeasesLicences>
                      <r:repairsAndMaintenance></r:repairsAndMaintenance>
                      <r:researchAndDevelopment></r:researchAndDevelopment>
                      <r:relatedPartyRemuneration></r:relatedPartyRemuneration>
                      <r:salariesAndWages></r:salariesAndWages>
                      <r:contractorPayments></r:contractorPayments>
                      <r:otherExpenses></r:otherExpenses>
                      <r:exceptionalItems></r:exceptionalItems>
                      <r:netProfitLossBeforeTax></r:netProfitLossBeforeTax>
```

```
                        <r:taxAdjustments></r:taxAdjustments>
                        <r:currentYearTaxableProfitLoss></r:currentYearTaxableProfitLoss>
                        <r:accountsReceivable systemAdjustedValue="" userAdjustedValue=""/>
                        <r:cashAndDeposits></r:cashAndDeposits>
                        <r:otherCurrentAssets></r:otherCurrentAssets>
                        <r:vehicles></r:vehicles>
                        <r:plantAndMachinery></r:plantAndMachinery>
                        <r:furnitureAndFittings></r:furnitureAndFittings>
                        <r:land></r:land>
                        <r:buildings></r:buildings>
                        <r:otherFixedAssets></r:otherFixedAssets>
                        <r:intangibles></r:intangibles>
                        <r:sharesAndOwnershipInterests></r:sharesAndOwnershipInterests>
                        <r:termDeposits></r:termDeposits>
                        <r:otherNonCurrent></r:otherNonCurrent>
                        <r:provisions systemAdjustedValue="" userAdjustedValue=""></r:provisions>
                        <r:provisionsForShareholderSalaries adjustedBy=" unadjustedValue=""/>
                        <r:accountsPayable systemAdjustedValue="" userAdjustedValue=""/>
                        <r:currentLoans></r:currentLoans>
                        <r:otherCurrentLiabilities></r:otherCurrentLiabilities>
                        <r:nonCurrentLiabilities></r:nonCurrentLiabilities>
                        <r:ownersEquity></r:ownersEquity>
                        <r:taxDepreciation systemAdjustedValue="" userAdjustedValue=""/>
                        <r:unTaxedRealisedGainsAndReceipts/>
                        <r:additionsToFixedAssets></r:additionsToFixedAssets>
                        <r:disposalOfFixedAssets></r:disposalOfFixedAssets>
                        <r:depreciationRecovered systemAdjustedValue="" userAdjustedValue=""/>
                        <r:losses></r:losses>
                        <r:privateUse systemAdjustedValue="" userAdjustedValue=""></r:privateUse>
                        <r:dividendsPaid></r:dividendsPaid>
                        <r:drawings></r:drawings>
                        <r:currentAccountYearEndBalances/>
                        <r:taxDeductibleLossOnDisposalOfFixedAssets/>
                        <r:otherAdjustments>
                            <r:adjustments>
                               <r:amount/>
                               <r:description/>
                            <r:adjustments/>
                         <r:otherAdjustments/>
                        <r:yearToDateProvTaxLiability></r:yearToDateProvTaxLiability>
                        <r:thisInstalment></r:thisInstalment>
                        <r:shareholderProvTax></r:shareholderProvTax>
                        <r:refundAmount></r:refundAmount>
                        <r:refundIndicator></r:refundIndicator>
                </r:formFields>
        </r:responseBody>
</r:retrieveReturnResponse>
```

3.5 RetrieveFilingObligation

The retrieveFilingObligation operation is used to retrieve the date on which the next return is due, as well as any overdue returns for a specified account. This operation has the same request and response structure for all tax types.

<**retrieveFilingObligationsRequest**> structure:

```
<rc:retrieveFilingObligationsRequest
                        xmlns:cmn="urn:www.ird.govt.nz/GWS:types/Common.v1"
                        xmlns:rc="urn:www.ird.govt.nz/GWS:types/ReturnCommon.v1"
                        xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
                        xsi:schemaLocation="urn:www.ird.govt.nz/GWS:types/ReturnAIM.v1">
        <cmn:softwareProviderData>
                <cmn:softwareProvider>SoftwareComany</cmn:softwareProvider>
                <cmn:softwarePlatform>SoftwarePlatform</cmn:softwarePlatform>
                <cmn:softwareRelease>V1.1</cmn:softwareRelease>
        </cmn:softwareProviderData>
        <cmn:identifier IdentifierValueType="ACCIRD">123456789</cmn:identifier>
        <cmn:accountType>INC</cmn:accountType>
        <rc:majorFormType>SOA</rc:majorFormType>
</rc:retrieveFilingObligationsRequest>
```

<**retrieveFilingObligationsResponse**> structure:

```
<retrieveFilingObligationsResponse
xmlns="urn:www.ird.govt.nz/GWS:types/ReturnCommon.v1">
        <statusMessage xmlns="urn:www.ird.govt.nz/GWS:types/Common.v1" >
                <statusCode>0</statusCode>
                <errorMessage>Success</errorMessage>
        </statusMessage>
        <responseBody>
            <filingObligation>
                <periodEndDate>2018-05-31</periodEndDate>
                <status>Overdue</status>
                <dueDate>2018-06-28</dueDate>
            </filingObligation>
            <filingObligation>
                <periodEndDate>2018-06-30</periodEndDate>
                <status>Expected</status>
                <dueDate>2018-07-30</dueDate>
            </filingObligation>
        </responseBody>
</retrieveFilingObligationsResponse>
```

4 End points, schemas and WSDLs

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/

4.1 End points

Onboarding instructions are available at https://www.ird.govt.nz/software-providers/.

4.2 Schemas

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

The ReturnCommon.xsd imports the Common.xsd and creates data types to be used across all tax types and return types. ReturnCommon.xsd also includes two request elements and two response elements. These requests are retrieveFormInfoRequest and retrieveFilingObligationsRequest, while the responses are retrieveFilingObligationsResponse and retrieveStatusResponse.

The reason for adding root-level elements in the ReturnCommon.xsd is due to the fact that these request and response structures will never change, regardless of the tax type. This allows Inland Revenue to keep a uniform request and response structure across all current and future tax types.

Importing from ReturnCommon.xsd will be schemas that require more fine-grained detail. These will primarily define the request for the File operation, the response for RetrieveReturn and the response for Prepop.

4.3 WSDLs

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

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

All WSDL messages follow this naming convention:

```
Return_<operation>_InputMessage or Return_<operation>_OutputMessage.

<wsdl:portType name="Return">
        <wsdl:operation name="File">
        <wsdl:operation name="Prepop">
        <wsdl:operation name="RetrieveStatus">
        <wsdl:operation name="RetrieveFilingObligations">
        <wsdl:operation name="RetrieveReturn">
<wsdl:service name="Return">
```

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 ReturnAIM.xsd. This will allow any tools that consume the WSDL to automatically pull in the data structures from the XSD. To use this, ensure the WSDL provided by Inland Revenue is in the same directory as Common.xsd and ReturnAIM.xsd.

Note: The WSDL hosted at the end point above will not contain these XSD references, only the static WSDL provided at https://www.ird.govt.nz/software-providers/.

5 Responses

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

5.1 Generic gateway response codes

The following response codes are common to all Gateway Service calls. The operations on the Return Service all have framework security validation applied at account level and that is reflected in the descriptions of the codes below:

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		0 indicates a successful web service call. Note: 0 does not display a standard message.
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
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. • 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.
5	Unauthorised vendor	The vendor provided is not authorised to use these suite of services
6	Authentication expired	Token authentication has expired and needs to be refreshed, this will only occur if a token has already been used and expires on the same business day as it is used.

Standard codes	Standard message	Description
7	Account type not supported	This code will be returned for queries on account types not supported in any Gateway Services web services. For April 2018 this will be any account type other than AIL, AIP, BPA, MPO, CRS, DWT, FAT, FBT, GMD, GSD, GST, INC, IIT, ITN, IPS, NRT, PIE, PRS, PSO, EMP, RLT, 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	When maximum concurrency has been exceeded by Service Provider this SOAP Fault will be returned

5.2 Generic returns response codes

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

Standard codes	Standard message	Description
100	Invalid request data	Could not extract data from XML payload
101	Unable to file return	An error has occurred while filing return. This may be due to invalid information in the specific return form fields.
102	ID/Account type not valid	The account type / ID submitted does not exist
103	No return found	No return exists on the selected filing period
104	Invalid filing period	Error may be returned for one of the following reasons: • The periodEndDate did not match a valid filing period for the account • Attempting to file a SOA for a filing period that is before the filing period of the most recently filed SOA (SOAs must be filed sequentially, in correct order).
105	No filing obligations found	No valid filing obligations were found. This could be completely acceptable if they were not expecting to have any filing obligations.
106	Operation not available for major form type	The operation performed does not exist for the major form type submitted

5.3 AIM-specific response codes

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

Standard codes	Standard message	Description
110	Customer not identified	The ID submitted does not exist
111	Customer is ineligible for AIM Statement of Activity	Inland Revenue has indicated this Customer in ineligible for AIM
112	Invalid entity type	Valid Customer Subtypes are: "COMPNY", "INDVDL", "SOCITY", "UNTTST" and Customer must not be part of a Consolidated Group
113	Period not provided	Filing Period does not exist or was not provided
114	Invalid period	Period occurs before Gateway Services go-live
115	Instalment date not provided	Instalment date does not exist or was not provided
116	Invalid instalment date	Invalid Instalment date based on provided Filing Period
117	Missing previous statement	Previous Statement must be provided before subsequent Statement (example: March must be filed before April)
118	Duplicate statement of activity	Statement of Activity already exists for provided Customer and Period
119	Customer not enrolled in AIM	Customer tried to retrieve a return when they are not enrolled in AIM
120	Ratio return has been filed for this tax year	Customer has filed a GST Ratio Return this tax year
122	Transitional year processing error	Customer is in an income tax transitional year
123	Income tax account inactive	Customer currently has an inactive income tax account

6 Example scenarios

6.1 Managing overpayments

Scenario	Example		Statement of Activity
Customer wants the overpaid provisional tax *refunded* in full.	Overpaid provisional tax Refund	$2,000 $2,000	• refundIndicator = true • refundAmount = 0 or 2000 (if refundIndicator is true, and refundAmount is 0, the entire amount will be refunded) • No transfer instructions
Customer wants a portion of the overpaid provisional tax *refunded* and the balance *held* in their income tax account.	Overpaid provisional tax Refund Hold in income tax account	$2,000 $1,500 $ 500	• refundIndicator = true • refundAmount = 1500 • No transfer instructions
Customer wants a portion of the overpaid provisional tax *refunded* and the balance *transferred* to another account(s).	Overpaid provisional tax Refund Transfer to another account	$2,000 $1,200 $ 800	• refundIndicator = true • refundAmount = 1200 • Transfer instructions completed (eg instructions to transfer $800)
Customer wants a portion of the overpaid provisional tax *refunded*, a portion *transferred* to another account(s) and the balance *held* in their income tax account.	Overpaid provisional tax Refund Transfer to another account Hold in income tax account	$2,000 $1,000 $ 200 $ 800	• refundIndicator = true • refundAmount = 1000 • Transfer instructions completed (eg instructions to transfer $200)
Customer wants all of the overpaid provisional tax *held* in their income tax account.	Overpaid provisional tax Hold in income tax account	$2,000 $2,000	• refundIndicator = false • refundAmount = 0 • No transfer instructions
Customer wants a portion of the overpaid provisional tax *held* in their income tax account and a portion *transferred* to another account(s).	Overpaid provisional tax Transfer to another account Hold in income tax account	$2,000 $ 500 $1,500	• refundIndicator = false • refundAmount = 0 • Transfer instructions completed (eg instructions to transfer $500)
Customer wants all of the overpaid provisional tax *transferred* to another account(s).	Overpaid provisional tax Transfer to another account	$2,000 $2,000	• refundIndicator = false • refundAmount = 0 • Transfer instructions completed (eg instructions to transfer $2,000)

6.2 'Year to date' provisional liability and 'This instalment'

Example 1:

Customer's accounting income (and therefore their provisional tax liability) is increasing during the year.

The AIM-capable software calculates the year to date provisional tax liability and the amount due (if any) at each instalment date.

Statement of Activity	Instalment 1	Instalment 2	Instalment 3	Instalment 4	Instalment 5	Instalment 6
Year to date provisional tax liability	$1,000	$1,700	$3,000	$10,000	$16,000	$23,000
This instalment	$1,000	$700	$1,300	$7,000	$6,000	$7,000

The year to date provisional tax liability from the Statement of Activity will be recorded in the customer's income tax account along with payments made.

Customer income tax account	Instalment 1	Instalment 2	Instalment 3	Instalment 4	Instalment 5	Instalment 6
Provisional tax liability	$1,000	$1,700	$3,000	$10,000	$16,000	$23,000
Reversal		$1,000-	$1,700-	$3,000-	$10,000-	$16,000-
Payments	$1,000-	$1,000- $700-	$1,000- $700- $1,300-	$1,000- $700- $1,300- $7,000-	$1,000- $700- $1,300- $7,000- $6,000-	$1,000- $700- $1,300- $7,000- $6,000- $7,000-
Refunds						
Balance	$0	$0	$0	$0	$0	$0

The instalment amount from the Statement of Activity will be recorded as the amount due (if any) to build up a record of all of the instalments for the year.

Customer income tax due dates						
Instalment 1	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000
Instalment 2		$700	$700	$700	$700	$700
Instalment 3			$1,300	$1,300	$1,300	$1,300
Instalment 4				$7,000	$7,000	$7,000
Instalment 5					$6,000	$6,000
Instalment 6						$7,000

Example 2:

Customer's accounting income (and therefore their provisional tax liability) fluctuates during the year.

Statement of Activity	Instalment 1	Instalment 2	Instalment 3	Instalment 4	Instalment 5	Instalment 6
Year to date provisional tax liability	$1,000	$1,700	$3,000	$1,100	$800	$1,500
This instalment	$1,000	$700	$1,300	$0	$0	$700

The year to date provisional tax liability from the Statement of Activity will be recorded in the customer's income tax account along with payments made. Where the payments made up to an instalment date exceed the year to date provisional tax liability, the overpayment will be refunded unless directions have been provided on the Statement of Activity to hold or transfer the overpayment.

Customer income tax account	Instalment 1	Instalment 2	Instalment 3	Instalment 4	Instalment 5	Instalment 6
Provisional tax liability	$1,000	$1,700	$3,000	$1,100	$800	$1,500
Reversal		$1,000-	$1,700-	$3,000-	$1,100-	$800-
Payments	$1,000-	$1,000- $700-	$1,000- $700- $1,300-	$1,000- $700- $1,300-	$1,000- $700- $1,300-	$1,000- $700- $1,300- $700-
Refunds				$1,900	$1,900 $300	$1,900 $300
Balance	$0	$0	$0	$0	$0	$0

The instalment amount from the Statement of Activity will be recorded as the amount due (if any) to build up a record of all of the instalments for the year. Previous due dates may be adjusted to ensure the total of all due dates match the year to date provisional tax liability.

Customer income tax due dates						
Instalment 1	$1,000	$1,000	$1,000	$1,000	$800	$800
Instalment 2		$700	$700	$100	$0	$0
Instalment 3			$1,300	$0	$0	$0
Instalment 4				$0	$0	$0
Instalment 5					$0	$0
Instalment 6						$700

6.3 Ledger, software-generated and user-entered values

Example 1:

Ledger entry	Software generated adjustment	User entered adjustment
Balance (if any) in the ledger for an item.	Adjustment that needs to be made to a ledger amount, calculated by AIM-capable software based on the relevant Determination.	Amount (if any) entered by the customer as a more appropriate adjustment based on individual circumstances.
Example: ***Provisions balance in the ledger is $2,000.*** **Provisions = 2000**	*Software calculated adjustment for provisions is $500 to take it to a AIM suitable amount of $2,500.* systemAdjustedValue = 500	*Customer enters adjustment of $450 as they consider the amount should be $2,450* userAdjustedValue = 450
Example: ***Provisions balance in the ledger is $2,000.*** **Provisions = 2000**	*Software calculated adjustment for provisions is nil.* systemAdjustedValue = 0	*Customer enters adjustment of $450.* userAdjustedValue = 450
Example: ***Provisions balance in the ledger is $2,000.*** **Provisions = 2000**	*Software has insufficient information to calculate an adjustment for provisions.* systemAdjustedValue = blank	*Customer enters adjustment of $450.* userAdjustedValue = 450
Example: ***There is no balance for provisions in the ledger.*** **Provisions = 0**	*No adjustment for provisions is calculated.* systemAdjustedValue = blank	N/A userAdjustedValue = blank

7 Glossary

Acronym/term	Definition
ACC	Accident Compensation Corporation
ACCID	Account ID
ACCIRD	Account IRD
Activity statement	Statement of Activity—the name for the data that is filed for AIM
AIM	Accounting Income Method—a method that businesses can use for calculating and paying provisional income tax. Participating businesses are required to file a Statement of Activity.
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
End points	A term used to describe a web service that has been implemented
FIPS	Federal Information Processing Standard—a suite of IT standards from the US Federal Government
Gateway	Inland Revenue's web services gateway
GWS	Gateway Services—the brand name for the suite of web services that Inland Revenue is providing. The AIM Return 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.
IAMS	Identity and Access Management—a logical component that performs authentication and authorisation. Physically it is a set of discrete hardware and software products, plug-ins and protocols. Usually implemented as separate External IAMS (XIAMS) and Internal IAMS.
IAS	Identity and Access
IIT	Individual Income Tax
INC	Inland Revenue's abbreviation for Income Tax
IP	Internet Protocol—the principal communication protocol in the Internet protocol suite for relaying datagrams across networks
IPS	Interest Pay-as-you-earn
ITN	Non-Individual Income Tax
IRD	Inland Revenue Department
NRT	Non-resident Withholding Tax
OAuth	An HTTPS based protocol for authorising access to a resource, currently at version 2

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 them that provide different strengths. SHA-2 is currently favoured over SHA-1, which has been compromised.
SOAP	Simple Object Access Protocol—a set of standards for specifying web services. GWS 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.
Statement of Activity	See Activity Statement
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
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 X.509 certificate to which it is bound identifies whose key it is, who issued it, when it expires etc. When a counterparty's X.509 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

8 Change log

This table lists all changes that have been made to this build pack document since 06/10/2017 (most recent changes listed first).

Version	Return type	Date of change	Document section	Description
	N/A	14/03/19	5.2	Explanded description of error code 104 Invalid filing period
		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."*
		21/12/18	Entire document	**BUILD PACK MODIFIED TO MAKE IT AIM-SPECIFIC –** **EI and GST tax types removed**
			8 Glossary	Entries added for IIT and ITN.
			1.5.1	New section added to cover mutual TLS and certificates
			(formerly section 6)	Section on use cases and processing flows removed
		5/09/18	2.4 Security	Disclaimer removed as no longer current: ***IMPORTANT:*** *Please note that only the end points for cloud-based connections are currently available.*
	GST	08/06/18	3.1.1 GST usage	• Renamed field in the field in the example payload • Placed provTaxInstalmentAmount before instalmentDueOrVoluntaryPayment • Changed the order in the table below it.
	AIM	08/06/18		• New AIM schema uploaded to GitHub
	GST	30/05/18	3.1 Prov specific fields	• Changed the element voluntaryPayment to instalmentDueOrVoluntaryPayment. • Order change of elements – provTaxInstalmentAmount

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				moved before instalmentDueOrVoluntaryPayment.
		21/05/18	4.1 End points	• Removed asterisks from cloud-based end points and the following text: **Please note that only the end points for cloud-based connections are currently available.*
VERSION NUMBERS REMOVED HENCEFORTH	EI, GST and AIM	17/05/18	3.3 RetrieveStatus 3.3.1 AIM usage	Diagrams added to illustrate process flows for statuses
1.06	EI	26/02/18	6.4.5 Filing a Nil EI	Added use case for filing a Nil EI
	EI	26/02/18	3.1.3 EI usage	Added note to section re employer cannot commence payday filing part way through a month.
	EI	26/02/18	6.4 EI-specific use cases	Added new section 6.4 EI-specific use cases
	All	22/02/18	5.1 Generic gateway response codes	• Updated the row for Standard Code 0 to reflect that a standard message does not display • Updated descriptions for codes 4 and 6 to be more descriptive • Added rows at end for SOAP faults and maximum concurrency exceeded
	All EI	22/02/18	3.2 Prepop 3.2.3 EI usage 3.3 RetreiveStatus 3.3.2 EI usage 3.4 RetrieveReturn 3.4.3 EI usage	All instances of <formInfoRequest> changed to <retrieveFormInfoRequest>
	EI	16/02/18	EI usage	• Corrected Description for field totalFamilyTaxCredits as it was referring to payroll donation credits • Updated the row for employmentFinishDate to reflect field not required if no end date
1.05	AIM and EI	15/02/18	5.1 Generic gateway response codes	**Added:** • Standard response code 6—'Authentication expired'—

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			5.3 AIM-specific response codes and 5.4 EI-specific response codes	added to table of generic gateway response codes • Standard response code 7—'Account type not supported'—added to table of generic gateway response codes • New section (5.4) added with EI-specific response codes • Standard response code 131—'Duplicate line items'—added to table of EI-specific response codes • Standard response code 132—' Reverse/replace can only be used for an amendment'—added to table of EI-specific response codes **Removed:** • Standard response code 131—'Duplicate line items'—removed from table of AIM-specific response codes (and added to table of EI-specific response codes) • Standard response code 121—'No active income year returns'—removed from table of AIM-specific response codes
1.04		12/02/18	Entire document	Cosmetic/formatting changes
1.04	All	02/02/18	3 Operations	Paragraph replaced: **OLD:** All return service file request responses will also include a **gatewayId**. The gatewayId is a unique identifier passed back in the responseBody when a request has been accepted through the gateway. The gatewayId can be provided to customers as a receipt that they have submitted a return and can be used in communications with IR to track the processing of a return. **NEW:** The response structure for all File requests will have the

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				gatewayId field populated. The gatewayId is a unique identifier passed back in the responseBody, assuming the response code for the request is zero (refer to Chapter 5 Responses). The gatewayId should be recorded and can be used by technical teams for troubleshooting. The gatewayId will not appear in search results when searching myIR. The gatewayId is also not available to Inland Revenue front-line staff (such as in the telephone contact centre) to search on.
1.03	EI	31/01/18	3.1.3 EI usage 5 Responses	Amendment information added Response wording changed and Error codes revised (added 4,6,131)
	EI	25/01/18	3.1.3 EI usage	Added isReverseReplace to table of fields. Renamed 'employeeReferenceId' to 'referenceId'.
		13/12/17	4.1 End points	Disclaimer added: **Please note that only the end points for cloud-based connections are currently available.* ALSO, removed reference to sliced and unsliced data.
		13/12/17	2.4 Security	Minimum TLS version for desktop connection end points updated: OLD: 1.0(+) NEW: 1.2 ALSO, disclaimer added: *IMPORTANT: Please note that only the end points for cloud-based connections are currently available.*
	EI	08/12/17	3.1.3 EI usage	Added employeeReferenceId to table of fields.
				Added HM (half-monthly) code to Employee pay frequency table
				Sample response on successful EI file operations
	All	07/12/17	3 Operations	Noted that eight digit IRD Numbers need to be padded with a leading zero.
	AIM	30/11/17	3.3.1 AIM usage	Added the following text: Although submitted via the Return service, an AIM Statement is not a

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				return and therefore only a subset of the available statuses apply for an AIM Statement. The following three statuses apply for checking RetrieveStatus for AIM: Removed the following text: NOTE: The 'submitted' status indicates that the Statement of Activity has been received by Inland Revenue for processing within START. It does not indicate the status of the processing of the customer's financial records within FIRST which will subsequently occur during the initial period of co-existence. Also note that these statuses may change for future rollouts.
	AIM	30/11/17		AIM error codes 121, 122 and 123 added.
	AIM	27/11/17	1.3 Supported onboarding packs	'Appendix—Policy and supporting legislation' was removed—text pasted into 1.3 instead
		27/11/17		'Appendix—Sample payloads' moved from this document and into GitHub as a standalone file.
		27/11/17	3 Operations; 4 End points, schemas and WSDLs	Disclaimer text and hyperlinks changed at start of each section: **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
		27/11/17		End point URLs updated
		27/11/17		Security section updated
		22/11/17	Glossary	FIRST added to glossary
	AIM	22/11/17	AIM (retrieveStatus)	Section added to cover responses
1.0	EI	07/11/17	3.1.3 EI usage	payDayDate information (sentence) modified.

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			3.2.3, 3.3.1 and 3.4.3 (all EI usage)	<retrieveEIRequest> details added, structure added, table containing payDayDate and submissionKey details added.
			3.5.1 EI usage	Sentence added.
1.0	AIM	26/10/17	3.1 File	Text added to periodEndDate line of Field/Requirement/Description table: **NEW:** An AIM Statement of Activity will cover a one or two month period. The period end date for the Statement of Activity refers to the last day of the period covered by that statement. For example, for a Statement of Activity covering the two month period of April and May 2019, the period end date is 31/05/19.
			3.1.2 AIM usage	**Multiple changes to text** in Attribute/Description table in systemAdjustedValue line and userAdjustedValue line. Also, **new row added** for shareholderProvTax.
			3.2.2 AIM usage	First paragraph of section changed: **NEW:** When using the pre-population service for AIM, the tax type will be INC and the majorFormType will be SOA (for Statement of Account). The response body will only be populated if the customer is eligible for AIM.
			5.3 AIM-specific response codes	'Fiscal year' **changed** to 'tax year' in standard code line 120.
1.0	AIM	26/10/17	Appendix C— Glossary	Minor modifications to text in glossary entries for 'Activity Statement' and 'AIM'.
	EI	19/10/17	3.1.3 EI Usage	Ensured section in EI didn't have reference to Total Number of Employee Lines
		19/10/17	Appendix B— Example scenarios	Appendix created and populated with example scenarios.
	AIM	18/10/17	3.1.2 AIM usage	Updated AIM schemas
	AIM	18/10/17	7.1.2 AIM payloads	Updated AIM sample payloads

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	GST	13/10/17	Appendix A— Sample payloads	Changes made to sample payloads in Appendix A to reflect all changes below.
	GST	13/10/17	3.4.1 GST usage	Changes made to <**retrieveReturnResponse**> structure.
	EI	13/10/17	3.1.3 EI usage	Text added at end of section to explain changes in above row: **NEW:** A submissionKey will be provided on file operations of EI returns. This submissionKey will be used to identify the specific EI return on a given filing period for amendment, status and retrieve return requests. On amendment requests, submissionKey and lineNumbers must be provided. lineNumbers are obtained by the retrieveReturn operation, and only lines that require amendments should be provided.
	EI	13/10/17	3.1.3 EI usage	Changes to Attribute/Description table: **NEW:** **submissionKey** and **lineNumber** fields added Attribute/Description table has also changed to reflect this.
	AIM	13/10/17	3.1.2 AIM usage	**NEW:** Table added with Statement of Activity example scenarios
	AIM	13/10/17	3.1.2 AIM usage	Changes to <**FormFields**> structure (for AIM): **OLD:** **adjustedBy** and **unadjustedValue** **NEW:** **systemAdjustedValue** and **userAdjustedValue**

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				Attribute/Description table has also changed to reflect this.
	GST	13/10/17	3.1 File	Change to first line for example scenario: **OLD:** Attempting to submit a GST103H for the 2018-January period. <cmn:accountType>GST</rc:accountType> <rc:periodEndDate>2018-01-31</rc:periodEndDate> <rc:majorFormType>GST</rc:majorFormType> <rc:minorFormType>103H</rc:minorFormType> **NEW:** Attempting to submit a GST103H for the 2018-January period. <cmn:accountType>GST</cmn:accountType> <rc:periodEndDate>2018-01-31</rc:periodEndDate> <rc:majorFormType>GST</rc:majorFormType> <rc:minorFormType>103H</rc:minorFormType>
	All	13/10/17	3 Operations	Line added to standard header fields example: <cmn:**accountType**>GST</cmn:accountType> **accountType** Also added to Attribute/Description table
	All	13/10/17	3 Operations	Lines added to default service response fields example: <responseBody> <gatewayId>0000 002J ZJ5N 6</gatewayId> </responseBody>
0.8		06/10/17	3.5 RetrieveFilingObligation	**OLD:** Please note that this operation does not apply to Employment Information. **NEW:** Please note that for EI the RetrieveFilingObligations will not act the same way that it does for other tax types. For those who have

Version	Return type	Date of change	Document section	Description
				already submitted a payroll for a given filing period, the current period will not be returned by this operation. Even if other payrolls with more employees are required for this account, RetrieveFilingObligations will only look to see if a payroll already exists on the period.