Inland Revenue

Build pack: Return service

Date: 13/12/2017
Version: v1.0 FINAL

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 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, endpoints, 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.

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 Return service.

The reader is assumed to have a suitable level of technical knowledge in order 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 Supported onboarding packs

Before using this build pack, ensure the relevant onboarding pack has been consulted to provide business level context.

The following Inland Revenue onboarding packs are supported by this build pack:

- GST via Gateway Services
- Accounting Income Method (AIM) via Gateway Services
- Employment Activities via Gateway Services.

The AIM onboarding pack also contains the relevant policy and supporting legislation.

1.4 Related build packs

The following Gateway Services build packs complement this one.

1.4.1 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 Return service build pack was written using information from version 1.5 of the Identity and Access services build pack.

1.4.2 Employment service build pack

The Employment service build pack describes the operations provided under the Employment web service, which forms part of the Gateway Services suite. The operations offered to employers by this service include the ability to create, update and terminate employment, as well as retrieve a list of employees.

This Return service build pack was written using information from version 0.8 of the Employment service build pack.

1.5 Prerequisites

Party	Requirement	Description
Inland Revenue	Provide the Inland Revenue public certificate for mutual TLS	IR's public X.509 certificate to support TLS will be provided as part of connectivity testing.
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.

2 Solution design

2.1 Architecture

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

The diagram below illustrates the flow of data from the customer to Inland Revenue.
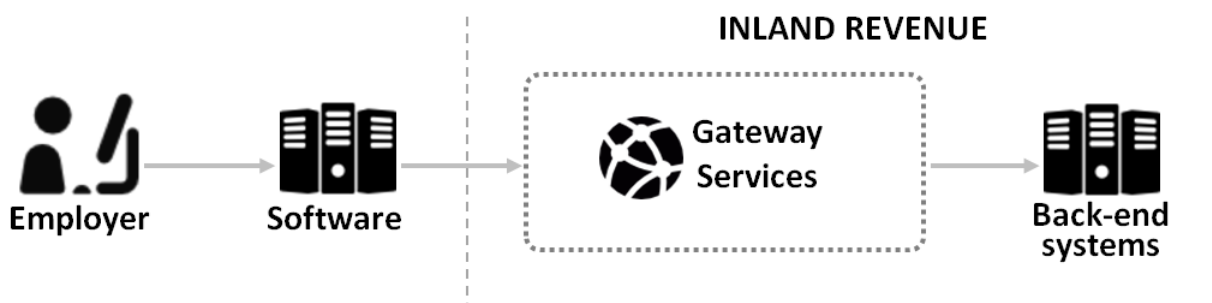
The WSDLs for the Gateway Services define an 'any' XML request and response structure, which then relies on a group of XSDs to define the data structure of those requests and responses. Each request and response type will define a lower, 'wrapper' element.

Any malformed XML will instantly be rejected by the Gateway Services prior to any schema validation.

2.2 Service scope

The 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 endpoints, which are summarised in the bullet points below (the table immediately afterwards provides more detail):

1. There is an endpoint 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 endpoint 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 endpoint that does not use mutual TLS. For this service, certificates do not need to be exchanged during onboarding. On the desktop endpoint Inland Revenue has less ability to shield consumers of the service from heavy usage by others.

IMPORTANT: Please note that only the end points for cloud-based connections are currently available.

	Endpoint for cloud-based connections	Endpoint for desktop connections
Purpose	• Primary preferred endpoint to connect to from service providers for Gateway Services.	• Additional transitory endpoint 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 setup 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 endpoint 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 endpoint 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	• Server side certificates only.

	Endpoint for cloud-based connections	Endpoint for desktop connections
	service identification below.	
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 endpoint.	• Desktop clients will be given different client_id/client_secret credentials to cloud application clients.
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 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

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: returnSpecific.xsd (for example ReturnGST.xsd, ReturnAIM.xsd, ReturnEI.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.

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**.

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>GST</cmn:accountType>
```

Field	Description
softwareProvider	The company that developed the software
softwarePlatform	The software package that is making the request
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.
accountType	The account type being submitted (GST, INC or EMP).

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 returns, regardless of the tax type. Note that the request and response structure is the same for all tax types.

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 across all tax types
fileBody	The standard body structure for File requests across all tax types
standardFields	A group of fields standard across all tax types
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>GST</cmn:accountType>
      <rc:periodEndDate>2017-03-31</rc:periodEndDate>
      <rc:majorFormType>GST</rc:majorFormType>
      <rc:minorFormType>101A</rc:minorFormType>
    </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 (ie GST, SOA etc)
minorFormType	Optional	The form number to the major form type, for example 101A vs 103G. NOTE: This is REQUIRED for major form types that have more than one minorFormType such as GST.

Proper uses:

- The major and minor form types will be used together to determine the submission form.

Example scenario:

- 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>
  ```

<**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:isFinalReturn>false</rc:isFinalReturn>
```

```
            <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
isFinalReturn	Optional	This field notes that the account is ready to be closed after this filing period. NOTE: This is <u>REQUIRED</u> for all tax types other than AIM.
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*, isFinalReturn to be *false*, and isAmended to be *false.*

Example scenario:

- Attempting to amend a GST return due to lack of information from client.
  ```
  <rc:isNilReturn>false</rc:isNilReturn>
  <rc:isFinalReturn>false</rc:isFinalReturn>
  <rc:isAmended>true</rc:isAmended>
  <rc:amendReason>KEY</rc:amendReason>
  <rc:amendDetails>Client withheld receipts of large business costs purchased during this GST
  filing period</rc:amendDetails>
  ```

3.1.1 GST usage

For GST, the formFields consists of three groups: gstSpecificFields, provSpecificFields, and transitionalFields.

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

```
<r:fileRequest namespaces...>
    <rc:fileHeader>...</rc:fileHeader>
    <rc:fileBody>
        <rc:standardFields>
        <rc:formFields xsi:type="r:FormFieldsType">
                <r:gstSpecificFields/>
                <r:provSpecificFields/>
                <r:transitionalFields/>
        </rc:formFields>
        </rc:fileBody>
    </r:fileRequest>
```

Field	Requirement	Description
gstSpecificFields	Required	The fields in the group are standard GST101 fields
provSpecificFields	Optional	The provisional tax fields required for any GST103 form
transitionalFields	Optional	Additional fields used for a transitional period return

<**gstSpecificFields**> structure:

```
<r:fileRequest namespaces...>
    <rc:fileHeader>...</rc:fileHeader>
    <rc:fileBody>
        <rc:standardFields>
        <rc:formFields xsi:type="r:FormFieldsType">
            <r:gstSpecificFields>
                <r:totalSales>61223.50<r/:totalSales>
                <r:zeroRatedSupplies>2210.55</r:zeroRatedSupplies>
                <r:debitAdjustment>
                    <r:privateUsePeriodAdjustment>123.45</r:privateUsePeriodAdjustment>
                    <r:privateUseOneOff>123.45</r:privateUseOneOff>
                    <r:assetsAfterCease>123.45</r:assetsAfterCease>
                    <r:entertainment>123.45</r:entertainment>
                    <r:changeAccountingBasis>123.45</r:changeAccountingBasis>
                    <r:exemptSupplies>123.45</r:exemptSupplies>
                    <r:currentRateGSTAdjustments>123.45</r:currentRateGSTAdjustments>
                    <r:other>123.45</r:other>
                    …OR….
                    <r:totalDebitAdjustment>321.45</r:totalDebitAdjustment>
                <r:totalExpenses>6001.20</r:totalExpenses>
                <r:creditAdjustment>
                    <r:useOfPrivateGoods>123.45</r:useOfPrivateGoods>
                    <r:privateAssetsForBusiness>123.45</r:privateAssetsForBusiness>
                    <r:changeAccountingBasis>123.45</r:changeAccountingBasis>
                    <r:currentRateGSTCredits>123.45</r:currentRateGSTCredits>
                    <r:other>123.45</r:other>
                    …OR…
                    <r:totalCreditAdjustment>321.45</r:totalCreditAdjustment>
```

```
            <r:totalGST>123456.78</r:totalGST>
        </r:gstSpecificFields>
        <r:transitionalFields/>
        <r:provSpecificFields/>
    </rc:formFields>
  </rc:fileBody>
</r:fileRequest>
```

Field	Requirement	Description
totalSales	Required	Total sales and income for the period (GST and zero-rated supplies)
zeroRatedSupplies	Required	Zero-rated supplies included in totalSales
debitAdjustment	Required	Calculation fields for determining debit adjustments OR the debit adjustment total
totalExpenses	Required	Total purchases and expenses (including GST) for which tax invoicing requirements have been met
creditAdjustment	Required	Calculation fields for determining credit adjustments OR the debit adjustment total
totalGST	Required	Total GST collected on sales and income

<transitionalFields> structure:

```
<r:fileRequest namespaces...>
  <rc:fileHeader>...</rc:fileHeader>
  <rc:fileBody>
      <rc:standardFields>
      <rc:formFields xsi:type="r:FormFieldsType">
        <r:gstSpecificFields/>
       <r:transitionalFields>
            <r:totalSales>1324</r:totalSales>
            <r:zeroRatedSupplies>123</r:zeroRatedSupplies>
            <r:debitAdjustments>
                <r:privateUsePeriodAdjustment></r:privateUsePeriodAdjustment>
                <r:privateUseOneOff></r:privateUseOneOff>
                <r:assetsAfterCease></r:assetsAfterCease>
                <r:entertainment></r:entertainment>
                <r:changeAccountingBasis></r:changeAccountingBasis>
                <r:exemptSupplies></r:exemptSupplies>
                <r:currentRateGSTAdjustments></r:currentRateGSTAdjustments>
                <r:other></r:other>
                ...OR....
                <r:totalDebitAdjustment>321.45</r:totalDebitAdjustment>
            </r:debitAdjustments>
            <r:totalExpenses>123</r:totalExpenses>
            <r:creditAdjustments>
                <r:useOfPrivateGoods></r:useOfPrivateGoods>
                <r:privateAssetsForBusiness></r:privateAssetsForBusiness>
                <r:changeAccountingBasis></r:changeAccountingBasis>
                <r:currentRateGSTCredits></r:currentRateGSTCredits>
                <r:other></r:other>
                ...OR...
                <r:totalCreditAdjustment>321.45</r:totalCreditAdjustment>
            </r:creditAdjustments>
```

```
        <r:totalGST>123</r:totalGST>
        <r:totalTransitionalAndStandardGST></r:totalTransitionalAndStandardGST
    </r:transitionalFields>
    <r:provSpecificFields/>
   </rc:formFields>
  </rc:fileBody>
 </r:fileRequest>
```

Field	Description
totalTransitionalAndStandardGST	This field is the sum of the totalGST fields from the standard GST and the transitional GST sections.

Proper uses:

- The transitionalFields should only be used in the case of a national GST ratio change. If the ratio changes in the middle of a filing period, the next return submission would include these transitional fields. These fields are a copy of the GST specific fields with the totalTransitionalAndStandardGST field at the end.

<**provSpecificFields**> structure:

```
<r:fileRequest namespaces...>
  <rc:fileHeader>...</rc:fileHeader>
  <rc:fileBody>
     <rc:standardFields>
     <rc:formFields xsi:type="r:FormFieldsType">
        <r:gstSpecificFields/>
        <r:transitionalFields/>
        <r:provSpecificFields>
            <r:ratioTaxPercent></r:ratioTaxPercent>
            <r:ratioLastMonthTotalSales></r:ratioLastMonthTotalSales>
            <r:ratioMultiBranchTotalSales></r:ratioMultiBranchTotalSales>
            <r:ratioAssetAdjustment></r:ratioAssetAdjustment>
            <r:voluntaryPayment></r:voluntaryPayment>
            <r:provTaxInstalmentAmount>123.45</r:provTaxInstalmentAmount>
            <r:refundTransferAmountToProv></r:refundTransferAmountToProv>
            <r:totalGSTandProvToPay>12345.56</r:totalGSTandProvToPay>
        </r:provSpecificFields>
     </rc:formFields>
  </rc:fileBody>
 </r:fileRequest>
```

Fields	Requirement	Description
ratioTaxPercent	Optional	Ratio percentage.
ratioLastMonthTotalSales	Optional	Total sales and income for the previous month's return.
ratioMultiBranchTotalSales	Optional	If user has more than one branch, total sales and income for all other branches/divisions.

Fields	Requirement	Description
ratioAssetAdjustment	Optional	If an asset has been sold in the last two months, an adjustment for the asset's worth can be made in this field.
voluntaryPayment	Optional	If the user makes a voluntary payment, the amount can be specified in this field.
provTaxInstalmentAmount	Required	The ratio percentage multiplied by the difference between the asset's adjustment and total sales and income.
refundTransferAmountToProv	Optional	If the user is expecting a refund, an amount to be transferred to provisional tax can be specified in this field.
totalGSTandProvToPay	Required	The combination of the provisional tax instalment due and either a GST refund or GST to pay.

When submitting the GST 101 form the optional provisional fields should be left blank, unless submitting a GST 103 form.

3.1.2 AIM usage

<**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

Attribute	Description
	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.

Appendix B of this document provides a number of sample scenarios to illustrate how to manage overpayments.

3.1.3 EI usage

Multiple EI returns can be submitted for each payDayDate.

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

```
<r:fileRequest xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
       xmlns:cmn="urn:www.ird.govt.nz/GWS:types/Common.v1"
       xmlns:rc="urn:www.ird.govt.nz/GWS:types/ReturnCommon.v1"
       xmlns:r="urn:www.ird.govt.nz/GWS:types/ReturnEI.v1"
       xsi:schemaLocation="urn:www.ird.govt.nz/GWS:types/ReturnEI.v1">
  <rc:fileHeader>…</rc:fileHeader>
  <rc:fileBody>
      <rc:standardFields>…</rc:standardFields>
          <rc:formFields xsi:type="r:FormFieldsType">
            <r:submissionKey/>
            <r:payDayDate/>
            <r:piIrdNumber/>
            <r:contactName/>
            <r:contactPhoneNumber/>
            <r:contactEmail/>
            <r:employeeFields>
                 <r:employee>
                        <r:lineNumber/>
                        <r:irdNumber/>
                        <r:employeeName/>
                        <r:taxCode/>
                        <r:payPeriodStartDate/>
                        <r:payPeriodEndDate/>
                        <r:employmentStartDate/>
                        <r:employmentFinishDate/>
                        <r:employeeReferenceId/>
                        <r:employeePayFrequency/>
                        <r:grossEarnings/>
                        <r:earningsNotLiableACC/>
                        <r:lumpSumIndicator/>
```

```
                              <r:payeSchedularTaxDeductions/>
                              <r:childSupportCode/>
                              <r:childSupportDeductions/>
                              <r:studentLoansDeductions/>
                              <r:kiwisaverEmployerContributions/>
                              <r:kiwisaverDeductions/>
                              <r:taxCreditPayrollDonations/>
                              <r:esctDeducted/>
                              <r:familyTaxCredits/>
                      </r:employee>
                  </r:employeeFields>
                  <r:totalGrossEarnings/>
                  <r:totalEarningsNotLiableACC/>
                  <r:totalPAYESchedularTaxDeductions/>
                  <r:totalChildSupportDeductions/>
                  <r:totalStudentLoansDeductions/>
                  <r:totalKiwisaverEmployerContributions/>
                  <r:totalKiwisaverDeductions/>
                  <r:totalTaxCreditPayrollDonations/>
                  <r:totalESCTDeducted/>
                  <r:totalFamilyTaxCredits/>
                  <r:totalAmountPayable/>
              </rc:formFields>
          </rc:fileBody>
      </r:fileRequest>
```

Fields	Requirement	Description
submissionKey	Optional	This field only be used when amending EI returns
payDayDate	Required	Pay day date for return submission
piIrdNumber	Optional	PAYE Intermediary IRD Number
contactName	Optional	Name of payroll contact person
contactPhoneNumber	Optional	Payroll contact phone number
contactEmail	Optional	Payroll contact email
lineNumber	Optional	This field should only be used when amending EI returns
irdNumber	Required	IRD number of the employee—it can be zeros if IRD number not known
employeeName	Required	Name of the employee
taxCode	Required	The tax code of the employee (see table below for list of acceptable values)
employmentStartDate	Optional	Employee start date
employmentFinishDate	Optional	Employee end date
payPeriodStartDate	Required	Period start date for this employee's submission
payPeriodEndDate	Required	Period end date for this employee's submission

Fields	Requirement	Description
employeeReferenceId	Optional	Employee reference field that software providers can use to reconcile a line item back to the IR-generated line item number
employeePayFrequency	Optional	Pay frequency/cycle for employee (see table below for list of acceptable values)
grossEarnings	Optional	Gross earnings/scheduler payments
earningsNotLiableACC	Optional	Earnings not liable for ACC earner's levy
lumpSumIndicator	Optional	Boolean for indicating lump sum
payeSchedularTaxDeductions	Optional	PAYE/scheduler tax deductions
childSupportCode	Optional	Child support code (see table below for list of acceptable values)
childSupportDeductions	Optional	Child support deductions (sequenced with child support code)
studentLoansDeductions	Optional	Student loan deductions
kiwisaverEmployerContributions	Optional	Net KiwiSaver employer contributions
kisisaverDeductions	Optional	KiwiSaver employee deductions
taxCreditPayrollDonations	Optional	Tax credits for payroll donations
esctDeducted	Optional	Employer superannuation contribution tax
familyTaxCredits	Optional—to be filled in by MSD ONLY	Family tax credits
totalGrossEarnings	Compulsory	Total gross earnings
totalEarningsNotLiableACC	Compulsory	Total earnings not liable for ACC Earner's Levy
totalPAYESchedularTaxDeductions	Compulsory	Total PAYE (inc. tax on scheduler payments)
totalChildSupportDeductions	Compulsory	Total child support deductions
totalStudentLoanDeductions	Compulsory	Total student loan deductions
totalKiwisaverEmployerContributions	Compulsory	Total net KiwiSaver employer contributions
totalKiwisaverDeductions	Compulsory	Total KiwiSaver deductions
totalTaxCreditPayrollDonations	Compulsory	Tax credit payroll donations total

Fields	Requirement	Description
totalESCTDeductions	Compulsory	Total ESCT deducted
totalFamilyTaxCredits	Compulsory	Total tax credits for payroll donations
totalAmountPayable	Optional	Total amount payable

Tax codes		
CAE	**EDW**	**ESS**
MESL	**MSL**	**ND**
SB	**SBSL**	**SH**
SLCIR	**SSL**	**ST**
WT	**M**	**ME**
NSW	**S**	**SHSL**
SLBOR	**STC**	**STSL**

Child support code	Description
C	Ceased Employment
A	Advanced Payment
P	Protected Earnings
S	Short Term Absence
D	Deducted Previously
O	Other

Employee pay frequency	Description
WK	Weekly
4W	Four-weekly
FT	Fortnightly
MT	Monthly
DA	Daily
AH	Ad hoc/Irregular
HM	Half-monthly (twice a month)

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.

Sample response on successful EI file operations:

```
<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>
            <submissionKey>1829404672</submissionKey>
```

```
                </responseBody>
        </fileResponse>
```

3.2 Prepop

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

<**formInfoRequest**> 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="NZBN">9412345678900</cmn:identifier>
    <cmn:accountType>INC</cmn:accountType>
    <rc:periodEndDate>2018-01-31</rc:periodEndDate>
    <rc:majorFormType>SOA</rc:majorFormType>
</rc:formInfoRequest>
```

3.2.1 GST usage

If the requested customer qualifies for provisional tax, then the XML response will include provisional data—otherwise it will only include standard GST fields.

<**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/ReturnGST.v1"
                xsi:type="r:PrepopResponseBodyType">
        <r:accountId>123456798GST001</r:accountId>
        <r:periodEndDate>2018-01-31</r:periodEndDate>
        <r:filingFrequency>Two monthly – periods ending odd months</r:filingFrequency>
        <r:dueDate>2018-02-28</r:dueDate>
        <r:multiBranch>false</r:multiBranch>
        <r:expectedMinorFormType>101A</r:expectedMinorFormType>
        <r:provFiler>true</r:provFiler>
        <r:provOption>ratio</r:provOption>
        <r:compulsory>true</r:compulsory>
        <r:provTaxInstalmentAmount>123</r:provTaxInstalmentAmount>
        <r:ratioTaxPercent>40.1</r:ratioTaxPercent>
        <r:hospiceFiler>true</r:hospiceFiler>
        <r:hospiceType>HOSPTL</r:hospiceType>
    </responseBody>
</prepopResponse>
```

Field	Requirement	Description
accountId	Required	The account ID for the account
periodEndDate	Required	End date for the filing period
filingFrequency	Required	The filing frequency for this account
dueDate	Required	The due date for the return
multiBranch	Required	If the customer is a multi-branch filer
expectedMinorFormType	Required	The minor form type the customer is expected to file
provFiler	Required	If the customer is a provisional filer
provOption	Optional	The provisional type of the customer
compulsory	Optional	If the customer is a compulsory filer
provTaxInstalmentAmount	Optional	The instalment amount for provisional filers
ratioTaxPercent	Optional	The tax percentage if the customer is a ratio provisional filer
hospiceFiler	Optional	If the customer is a hospice filer
hospiceType	Optional	The hospice type of the customer

The Prepop operation will be used to acquire a specific subset of GST fields for a return. If the requested customer qualifies for provisional tax, then the XML response will include provisional data—otherwise it will only include standard GST fields. If there is no data for a specific field, that field will not be returned in the prepop response (MinOccurs = 0).

3.2.2 AIM usage

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.

<**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>2018-04-30</r:returnPeriodDate>
            <r:returnType>IR4</r:returnType>
            <r:balanceDate>2018-03-31</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

3.2.3 EI usage

All retrieve operations for EI use <retrieveEIRequest> instead of the standard <formInfoRequest>. retrieveEIRequest contains the payDayDate and submissionKey fields that are used to identify a return.
<**retrieveEIRequest**> structure:

```
<r:retrieveEIRequest xmlns:cmn="urn:www.ird.govt.nz/GWS:types/Common.v1"
          xmlns:rc="urn:www.ird.govt.nz/GWS:types/ReturnCommon.v1"
          xmlns:r="urn:www.ird.govt.nz/GWS:types/ReturnEI.v1"
          xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
          xsi:schemaLocation="urn:www.ird.govt.nz/GWS:types/ReturnEI.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>EMP</cmn:accountType>
     <rc:periodEndDate>2018-01-31</rc:periodEndDate>
     <rc:majorFormType>EI</rc:majorFormType>
     <r:payDayDate>2018-01-01</r:payDayDate>
</r:retrieveEIRequest>
```

Field	Requirement	Description
payDayDate	Required	The pay day period of the return
submissionKey	Not used	submissionKey is not used for the prepop operation, and should not be submitted

<**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/ReturnEI.v1"
```

```
                        xsi:type="r:PrepopResponseBodyType">
                <r:accountId>123456798EMP001</r:accountId>
                <r:employee>
                        <r:irdNumber>123456789</r:irdNumber>
                        <r:employeeName>MarkTwain</r:name>
                        <r:taxCode>M</r:taxCode>
                        <r:employmentStartDate></r:employmentStartDate>
                        <r:employmentFinishDate></r:employmentEndDate>
                </r:employee>
                <r:employee>
                        <r:irdNumber>123456789</r:irdNumber>
                        <r:employeeName>SamualClemens</r:name>
                        <r:taxCode>M</r:taxCode>
                </r:employee>
        </r:responseBody>
    </r:prepopResponse>
```

Field	Description
irdNumber	The IRD number of the employee—if no IRD number is available, 000000000 will be returned
employeeName	The name of the employee is known as on the EI (20 characters)
taxCode	The tax code under which the employee falls
employmentStartDate	The start date of the employment (if date is not known, nothing will be returned)
employmentFinishDate	The cease date of the employment (if employment is still on-going, nothing will be returned)

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.

<**formInfoRequest**> 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/ReturnGST.v1">
        <cmn:softwareProviderData>
                <cmn:softwareProvider>SoftwareCompany</cmn:softwareProvider>
                <cmn:softwarePlatform>SoftwarePlatform</cmn:softwarePlatform>
                <cmn:softwareRelease>V1.1</cmn:softwareRelease>
        </cmn:softwareProviderData>
        <cmn:identifier IdentifierValueType="NZBN">9412345678900</cmn:identifier>
        <cmn:accountType>GST</cmn:accountType>
        <rc:periodEndDate>2018-01-31</rc:periodEndDate>
        <rc:majorFormType>GST</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>Processed</status>
        </responseBody>
</statusResponse>
```

Status	Description
Amended	This status is displayed when the return is amended
Under review	This status is displayed when the return is included in audit
Default assessment	This status is displayed when the return is a default assessment
Converted-penalty	This status is displayed when the return was not filed but created in the conversion process to house a late file penalty
Expected	This status is displayed when the return has generated return expectation
Processing	This status is displayed when the return is processing
Late-processing	This status is displayed when the return is received late and processing
Late-processed	This status is displayed when the return is processed late
Late-received	This status is displayed when the return is received late
New	This status is displayed when the return is not processed
Optional	This status is displayed when the return is not required to be filed, but the customer may choose to file anyway
Ontime-processing	This status is displayed when the return is received on time and processing
Ontime-processed	This status is displayed when the return is processed on time
Ontime-received	This status is displayed when the return is received on time
Overdue	This status is displayed when the return is overdue
Submission received	This status is displayed when the EI return has been received and initial processing has completed. During co-existence, the EI return will be held and forwarded for further processing at the end of the period.
Submitted	This status is displayed when the return is submitted by the customer
Posted	This status is displayed when the return is posted
Processed	This status is displayed when the return is processed

NOTE: Once a return has been filed it can take up to 24 hours for the status to change from 'submitted'.

3.3.1 AIM usage

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.

3.3.2 EI usage

All retrieve operations for EI use <retrieveEIRequest> instead of the standard <formInfoRequest>. retrieveEIRequest contains the payDayDate and submissionKey fields that are used to identify a return.

<**retrieveEIRequest**> structure:

```
<r:retrieveEIRequest xmlns:cmn="urn:www.ird.govt.nz/GWS:types/Common.v1"
          xmlns:rc="urn:www.ird.govt.nz/GWS:types/ReturnCommon.v1"
          xmlns:r="urn:www.ird.govt.nz/GWS:types/ReturnEI.v1"
          xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
          xsi:schemaLocation="urn:www.ird.govt.nz/GWS:types/ReturnEI.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>EMP</cmn:accountType>
     <rc:periodEndDate>2018-01-31</rc:periodEndDate>
     <rc:majorFormType>EI</rc:majorFormType>
     <r:payDayDate>2018-01-01</r:payDayDate>
     <r:submissionKey>34534523</submissionKey>
</r:retrieveEIRequest>
```

Field	Requirement	Description
payDayDate	Required	The pay day period of the return
submissionKey	Required	The submssionKey is required for the retrieveStatus operation. Only the status of the return with the corresponding submissionKey will displayed.

3.4 RetrieveReturn

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

<**formInfoRequest**> 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/ReturnGST.v1">
    <cmn:softwareProviderData>
        <cmn:softwareProvider>SoftwareCompany</cmn:softwareProvider>
        <cmn:softwarePlatform>SoftwarePlatform</cmn:softwarePlatform>
        <cmn:softwareRelease>V1.1</cmn:softwareRelease>
    </cmn:softwareProviderData>
    <cmn:identifier IdentifierValueType="NZBN">9412345678900</cmn:identifier>
    <cmn:accountType>GST</cmn:accountType>
    <rc:periodEndDate>2018-01-31</rc:periodEndDate>
    <rc:majorFormType>GST</rc:majorFormType>
</rc:formInfoRequest>
```

3.4.1 GST usage

The RetrieveReturn operation is used to acquire a full GST return. The RetrieveReturn response is delivered in the same format as the File request. For details on the fields returned here, see Section 3.1.1.

<**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/ReturnGST.v1"
                xsi:type="r:RetrieveReturnResponseBodyType">
      <r:standardFields>
          <isNilReturn xmlns="urn:www.ird.govt.nz/GWS:types/ReturnCommon.v1"/>
      </r:standardFields>
      <r:formFields>
          <r:gstSpecificFields>
              <r:totalSales></r:totalSales>
              <r:zeroRatedSupplies></r:zeroRatedSupplies>
              <r:debitAdjustments>
                <r:privateUsePeriodAdjustment></r:privateUsePeriodAdjustment>
                <r:privateUseOneOff></r:privateUseOneOff>
                <r:assetsAfterCease></r:assetsAfterCease>
                <r:entertainment></r:entertainment>
                <r:changeAccountingBasis></r:changeAccountingBasis>
                <r:exemptSupplies></r:exemptSupplies>
                <r:currentRateGSTAdjustments></r:currentRateGSTAdjustments>
                <r:other></r:other>
              </r:debitAdjustments>
              <r:totalExpenses></r:totalExpenses>
              <r:creditAdjustments>
                <r:useOfPrivateGoods></r:useOfPrivateGoods>
                <r:privateAssetsForBusiness></r:privateAssetsForBusiness>
                <r:changeAccountingBasis></r:changeAccountingBasis>
```

```
                        <r:currentRateGSTCredits></r:currentRateGSTCredits>
                        <r:other></r:other>
                    </r:creditAdjustments>
                    <r:totalGST></r:totalGST>
                </r:gstSpecificFields>
                <r:provSpecificFields>
                    <r:ratioTaxPercent></r:ratioTaxPercent>
                    <r:ratioLastMonthTotalSales></r:ratioLastMonthTotalSales>
                    <r:ratioMultiBranchTotalSales></r:ratioMultiBranchTotalSales>
                    <r:ratioAssetAdjustment></r:ratioAssetAdjustment>
                    <r:voluntaryPayment></r:voluntaryPayment>
                    <r:provTaxInstalmentAmount>123.45</r:provTaxInstalmentAmount>
                    <r:refundTransferAmountToProv></r:refundTransferAmountToProv>
                    <r:totalGSTandProvToPay>12345.56</r:totalGSTandProvToPay>
                </   r:provSpecificFields>
            </r:formFields>
        </r:responseBody>
    </r:retrieveReturnResponse>
```

3.4.2 AIM usage

For details on the fields returned here, see Section 3.1.2 of this document.

<**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>
```

3.4.3 EI usage

For details on the fields returned here, see section 3.2.3 of this document.

All retrieve operations for EI use <retrieveEIRequest> instead of the standard
<formInfoRequest>. retrieveEIRequest contains the payDayDate and submissionKey fields that
are used to identify a return.

<**retrieveEIRequest**> structure:

```
<r:retrieveEIRequest xmlns:cmn="urn:www.ird.govt.nz/GWS:types/Common.v1"
            xmlns:rc="urn:www.ird.govt.nz/GWS:types/ReturnCommon.v1"
            xmlns:r="urn:www.ird.govt.nz/GWS:types/ReturnEI.v1"
            xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
            xsi:schemaLocation="urn:www.ird.govt.nz/GWS:types/ReturnEI.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>EMP</cmn:accountType>
        <rc:periodEndDate>2018-01-31</rc:periodEndDate>
        <rc:majorFormType>EI</rc:majorFormType>
        <r:payDayDate>2018-01-01</r:payDayDate>
        <r:submissionKey>34534523</submissionKey>
</r:retrieveEIRequest>
```

Field	Requirement	Description
payDayDate	Required	The pay day period of the return
submissionKey	Optional	If submissionKey is provided, only the return with that submission key will be displayed. If only a payDayDate is provided, all returns with the corresponding payDayDate will be provided.

<**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/ReturnEI.v1"
                        xsi:type="r:RetrieveReturnResponseBodyType">
          <r:standardFields>
                <isNilReturn xmlns="urn:www.ird.govt.nz/GWS:types/ReturnCommon.v1"/>
          </r:standardFields>
          <r:formFields>
                <r:employeeFields>
                        <r:employee>
                                <r:irdNumber></r:irdNumber>
                                <r:employeeName></r:employeeName>
                                <r:taxCode></r:taxCode>
                                <r:payPeriodStartDate></r:payPeriodStartDate>
                                <r:payPeriodEndDate></r:payPeriodEndDate>
                        </r:employee>
                        <r:employee>
                                <r:irdNumber></r:irdNumber>
                                <r:employeeName></r:employeeName>
                                <r:taxCode></r:taxCode>
                                <r:payPeriodStartDate></r:payPeriodStartDate>
                                <r:payPeriodEndDate></r:payPeriodEndDate>
                        </r:employee>
                </r:employeeFields>
          </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.

Please note that for EI the RetrieveFilingObligations will not act the same way that it does for other tax types. For those who have 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.

<**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/ReturnGST.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>GST</cmn:accountType>
       <rc:majorFormType>GST</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>2017-01-31</periodEndDate>
               <status>Overdue</status>
               <dueDate>2017-02-15</dueDate>
           </filingObligation>
           <filingObligation>
               <periodEndDate>2018-06-30</periodEndDate>
               <status>Expected</status>
               <dueDate>2018-07-15</dueDate>
           </filingObligation>
       </responseBody>
</retrieveFilingObligationsResponse>
```

3.5.1 EI usage

The retrieveFilingObligations operation is not available for the EI minor form type.

4 End points, schemas and WSDLs

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

4.1 End points

The end points for the Digital Test Environment XZT:

Service	Environment	URL
Authentication	Cloud*	https://q.services.ird.govt.nz
	Desktop/native app	https://q.services.ird.govt.nz
Gateway Services	Cloud*	https://xzt.services.ird.govt.nz:4046/gateway/gws/returns/
	Desktop/native app	https://xzt.services.ird.govt.nz/gateway2/gws/returns/

The end points for the Digital Test Environment XZS:

Service	Environment	URL
Authentication	Cloud/desktop/native apps	https://q.services.ird.govt.nz
Gateway Services	Cloud*	https://xzs.services.ird.govt.nz:4046/gateway/gws/returns/
	Desktop/native app	https://xzs.services.ird.govt.nz/gateway2/gws/returns/

The end points for Production are as follows:

Service	Environment	URL
Authentication	Cloud/desktop/native apps	https://services.ird.govt.nz:443
Gateway Services	Cloud*	https://services.ird.govt.nz:4046/gateway/gws/returns/
	Desktop/native app	https://services.ird.govt.nz/gateway2/gws/returns/

*Please note that only the end points for cloud-based connections are currently available.

4.2 Schemas

All schemas for the Return service import 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/GWS/Returns?singleWsdl.

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">
```

5 Responses

The response message from the Gateway Services always includes a status code and status message that describes how successfully the gateway service call was carried out. Following the status message will be the responseBody, which will return the operations response.

5.1 Generic gateway response codes

The following response codes are common to all gateway service calls:

Standard codes	Standard message	Description
-1	An unknown error has occurred	This error will be logged by the Gateway Services and evaluated the next business day.
0	Success	This resembles a successful web service call.
1	Authentication failure	Authentication failure means the token provided

Standard codes	Standard message	Description
		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.
5	Unauthorised vendor	The vendor provided is not authorised to use these suite of services.
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.

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	The periodEndDate did not match a valid filing period for the account
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.
107	Duplicate return	There is already a return for this period/paydate (for EI). An amendment to a return that has already been submitted must be submitted with isAmended as true.

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
121	No active income year returns	Customer has no active income return records under the income tax year provided
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 Processing flows

6.1 Generic use cases

This section will convey how Inland Revenue intends the Gateway Services to be used. These are base cases and Inland Revenue recognises that these services can be used in many different ways to satisfy business needs.

Additional information on use cases is available in the associated on-boarding pack.

6.1.1 Preparing a return

Scenario 1:

1) The user prepares to generate a return for the next filing obligation.
2) The user runs Returns/RetrieveFilingObligations to see the next obligation and the due date.
3) Taking the next filing period due, the software calls Returns/Prepop on that account.
4) The user now has a new return for the next filing period with prepop fields populated.

Scenario 2:

1) The user prepares to generate return for the next filing obligation.
2) The user runs Returns/RetrieveFilingObligations to see the next obligation and the due date.
3) The software prepopulates the return with locally-stored data.
4) Once the return is ready to be filed, Returns/Prepop will be run to ensure local data was up-to-date.

6.1.2 Filing a return

Scenario 1:

1) The user has generated a return, pre-populated data, and filled out the remaining form fields.
2) Once the return is ready to submit, the user attempts to send the request. The software will call Returns/RetrieveStatus.
   a. If the RetrieveStatus response says that there is no return due for the period (or paydate) in question, the software should then prompt the user to see if the return is an amendment.
   b. If the return is not an amendment, the software should not allow the submission of a duplicate return.
3) Once the return is deemed acceptable by the software, Returns/File should be executed.
4) Returns/RetrieveStatus can be called, which will respond with "Submitted", and it will not be processed until the nightly batch runs.
5) Returns/RetrieveFilingObligations can be called to show the recently-submitted filing period no longer is due.

Scenario 2:

1) A tax agent has generated multiple returns, pre-populated all data, and filled out forms for many clients.

2) Once the tax agent is ready to submit the group of returns, the software will run the same checks from Scenario 1 for all returns the agent is attempting to file.
3) When deemed ready, the software will make one call to Returns/File for each return being submitted.
4) Returns/RetrieveStatus can be called, which will respond with "Submitted", and it will not be processed until the nightly batch runs.
5) Returns/RetrieveFilingObligations can be called to show the recently-submitted filing period no longer is due.

6.1.3 Retrieving standard user data

Scenario 1:

1) Once the user is logged in, their account will be shown to them.
2) The software will make a call to Returns/RetrieveStatus for the most recent filing obligation and to Returns/RetrieveFilingObligations.
3) The response from retrieve status will be displayed as the status of the most recent return.
4) The response from retrieving the filing obligations will show any overdue filing obligations, as well as the next filing period due date.

6.1.4 Filing an amended return

Scenario 1:

1) A return was filed and there was a mistake on the return.
2) The user can retrieve the previously-submitted return, calling Returns/RetrieveReturn.
3) Then a new return would be generated either as an amended return or a standard return.
4) The recently-retrieved return would be used to fill out the new form with the necessary changes made.
5) If the return is filled out as an amendment the return can be submitted using Returns/File with an amended reason and amended description.
6) If a standard return submission is submitted then the steps in Scenario 1 of section 6.1.2 will apply.

6.2 GST-specific use cases

6.2.1 Preparing to off-board client (for tax agents)

Scenario 1:

1) The tax agent will select to reconcile a client's account.
2) The software will call Returns/RetrieveFilingObligations.
   a. If there are no overdue returns and the agent is not responsible for the next filing obligation, then the software can show the account is reconciled.
   b. If there are any overdue returns or the tax agent is obligated to file the next due return, then the software should show actions required.
3) For agency records, the tax agent may want to call Returns/RetrieveReturn for the most recently submitted return, in case of any complications with Inland Revenue and the return contents.
4) The tax agent will then be safe to delink the client from their agency via myIR.

6.3 AIM-specific use cases

6.3.1 Retrieve income tax details for AIM customers

Scenario 1:

1) The software will call Returns/Prepop.
    a. If the customer is eligible for AIM, an status code of 0 and a response will be returned with the income tax details.
    b. If the customer is ineligible for AIM, a status code and error message will be returned.
2) After successfully receiving a response from Returns/Prepop, Returns/File can be safely called for the customer and the SOA major form type.

7 Appendix A—Example scenarios

7.1 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)

Scenario	Example		Statement of Activity
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)

7.2 '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

7.3   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

8 Appendix B—Glossary

Acronym/term	Definition
ACC, ACCID	Accident Compensation Corporation (and ID number)
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.
EI	Employment Information.
End points	A term used to describe a web service that has been implemented.
ESCT	Employer Superannuation Contribution Tax—one of the many deductions that come from payroll.
FIPS	Federal Information Processing Standard—a suite of IT standards from the US Federal Government.
FIRST	Inland Revenue's core mainframe system.
Gateway	Inland Revenue's web services gateway.
GST	Goods and Services Tax.
GWS	Gateway Services—the brand name for the suite of web services that Inland Revenue is providing. The 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.
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.
MSD	NZ Ministry of Social Development.
NZBN	New Zealand Business Number.
NZISM	NZ Information Security Manual—the security standards and best practices for Government agencies. Maintained by the NZ Government Communications Security Bureau (GCSB).
OAuth	An HTTPS based protocol for authorising access to a resource,

Acronym/term	Definition
	currently at version 2.
PAYE	Pay As You Earn.
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 (such as a GST return) 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—IR'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.

9 Appendix C—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
		13/12/2017	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.
		13/12/2017	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	08/12/2017	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	07/12/2017	3 Operations	Noted that eight digit IRD Numbers need to be padded with a leading zero.
	AIM	30/11/2017	3.3.1 AIM usage	Added the following text: 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: 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.

Version	Return type	Date of change	Document section	Description
				Also note that these statuses may change for future rollouts.
	AIM	30/11/2017		AIM error codes 121, 122 and 123 added.
	AIM	27/11/2017	1.3 Supported onboarding packs	'Appendix—Policy and supporting legislation' was removed—text pasted into 1.3 instead
		27/11/2017		'Appendix—Sample payloads' moved from this document and into GitHub as a standalone file.
		27/11/2017	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
		27/11/2017		End point URLs updated
		27/11/2017		Security section updated
		22/11/2017	Glossary	FIRST added to glossary
	AIM	22/11/2017	AIM (retrieveStatus)	Section added to cover responses
1.0	EI	07/11/2017	3.1.3 EI usage	payDayDate information (sentence) modified.
			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	26/10/2017	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	**Multiple changes to text** in

Version	Return type	Date of change	Document section	Description
			usage	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	26/10/2017	Appendix C— Glossary	Minor modifications to text in glossary entries for 'Activity Statement' and 'AIM'.
	EI	19/10/2017	3.1.3 EI Usage	Ensured section in EI didn't have reference to Total Number of Employee Lines
		19/10/2017	Appendix B— Example scenarios	Appendix created and populated with example scenarios.
	AIM	18/10/2017	3.1.2 AIM usage	Updated AIM schemas
	AIM	18/10/2017	7.1.2 AIM payloads	Updated AIM sample payloads
	GST	13/10/2017	Appendix A— Sample payloads	Changes made to sample payloads in Appendix A to reflect all changes below.
	GST	13/10/2017	3.4.1 GST usage	Changes made to <**retrieveReturnResponse**> structure.
	EI	13/10/2017	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

Version	Return type	Date of change	Document section	Description
				provided.
	EI	13/10/2017	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	13/10/2017	3.1.2 AIM usage	**NEW:** Table added with Statement of Activity example scenarios
	AIM	13/10/2017	3.1.2 AIM usage	Changes to <**FormFields**> structure (for AIM): **OLD:** **adjustedBy** and **unadjustedValue** **NEW:** **systemAdjustedValue** and **userAdjustedValue** Attribute/Description table has also changed to reflect this.
	GST	13/10/2017	3.1 File	Change to first line for example scenario: **OLD:** Attempting to submit a GST103H for the 2018-January period. <cmn:accountType>GST<mark>\</rc:accountType></mark> <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<mark>\</cmn:accountType></mark> <rc:periodEndDate>2018-01-31</rc:periodEndDate> <rc:majorFormType>GST</rc:majorFormType> <rc:minorFormType>103H</rc:minorFormTyp

Version	Return type	Date of change	Document section	Description
				e>
	All	13/10/2017	3 Operations	Line added to standard header fields example: `<cmn:accountType>GST</cmn:accountType>` **accountType** Also added to Attribute/Description table

	All	13/10/2017	3 Operations	Lines added to default service response fields example:
				
				`<responseBody>`
				`   <gatewayId>0000 002J ZJ5N 6</gatewayId>`
				`</responseBody>`

0.8		06/10/2017	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 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.