

Inland Revenue

## TDS Overview and Transition V0.51 23 Nov 2017 – Build Pack

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## About this Document

This document is provided to Service Providers to support their transition from Tax Agent Web Services to the use of Transaction Data Services (TDS). It provides an overview of TDS, describes the data which will be made available through the services, describes processes and use cases for the use of these services.

This document is part of the suite of build packs that Service Providers need for implementing interfaces between their software and INLAND REVENUE TDS.

## Document Control

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## 1 Overview

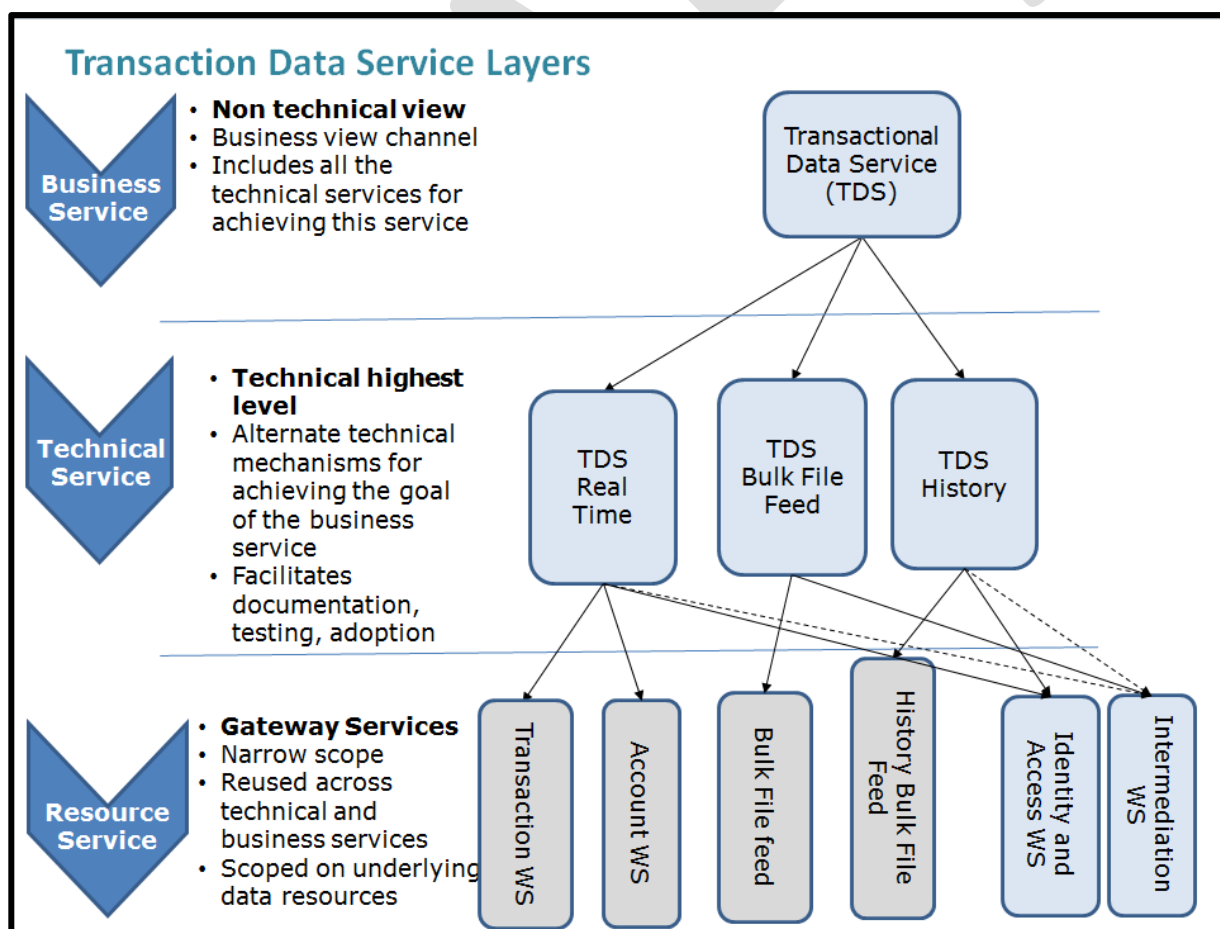
Inland Revenue (IR) has a suite of digital services available for consumption by our partners that support efficient, electronic business interactions with IR. Gateway Services is a suite of these that are mostly SOAP-based (Simple Object Access Protocol) web services and also include file transfer and API services. Transaction Data Services (TDS) is a business service described in this build pack document that consists of various technical services, which in turn rely on parts of the Gateway Services suite.

This document is intended to provide a high level overview of Transaction Data Services for current users of Tax Agent Web Services. It includes some information about data conversion from FIRST to START and how that data will appear in TDS to enable a reconciliation of data already held against data newly received.

This document should be read in conjunction with other TDS Build Packs for each available service. These contain the technical detail required to support the end-to-end use of Inland Revenue's various Transaction Data Services.

Other Gateway Services are available and have their own build pack documentation.

In the diagram below, this document describes the Business Service level – highlighted. The blue blocks have separate build packs describing them in more detail.



**Figure 1: Transaction Data Services Layers**



Technical Service	Description
3. History Feed of Transaction Data	<p>The History Feed is primarily a one-off SFTP providing history data for all Tax Agents/Customers included in the Bulk File at Day One. This provides access to the original transaction data history from the Inland Revenue FIRST system and allows for the update of any transactions not received through Tax Agent Web Services and the reconciliation of converted transactions with previously held transactions. The History transactions will contain the START Transaction ID to which the transaction has been converted.</p> <p>Two additional rare use cases are also supported on request: after manual conversion or for extended timespan unconverted periods.</p>

**Table 1 – Business Services in TDS**

TDS will provide data for tax types in Inland Revenue's new system - START – only. Tax Agent Web Services will continue to provide data for those tax types managed in Inland Revenue's existing system - FIRST.

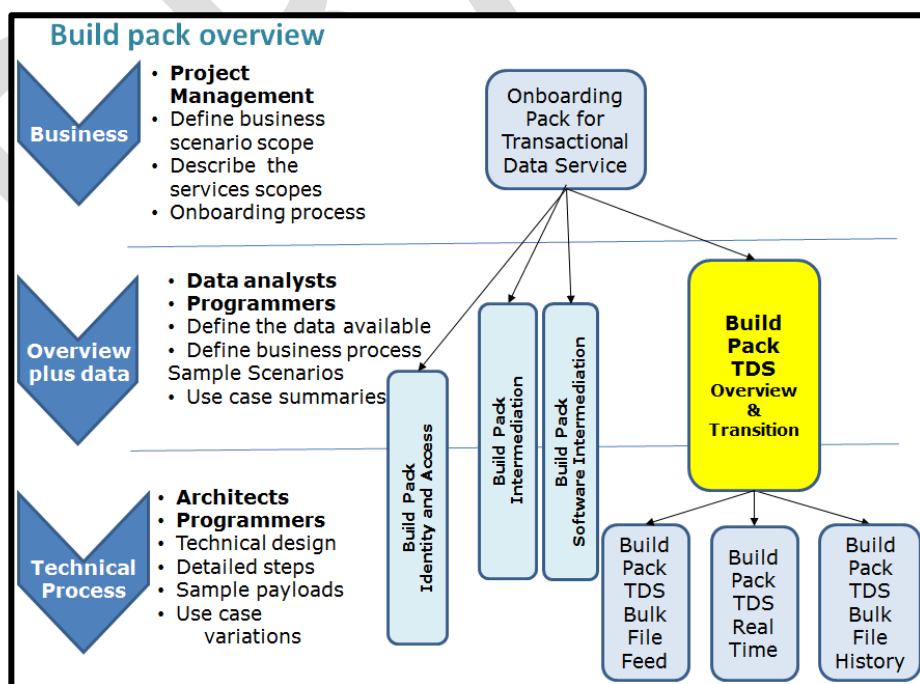
## 1.2 Intended Audience

The solution outlined in this document is intended to be used by Service Providers who currently provide access to Tax Agent Web Services through their software and wish to transition their Clients to TDS.

## 1.3 Related Documents

The following diagram explains the relationships between the documents supporting the TDS solution: *Note : Build Packs are available on the website here:*

<https://github.com/InlandRevenue/Gateway-Services/wiki>



**Figure 3: On-boarding and Build Pack Structure for TDS**

Name	Description
TDS - Onboarding	Provides the onboarding guide for consumers of the various TDS components. Gives details of prerequisites, setup requirements, testing, contact lists, etc. It is intended to get an organisation up and running using the TDS solution. This document will not be available at the link below; instead it will be sent to Service Providers when necessary.
TDS – Overview and Transition	This document - Describes the service components at a high level and provides an overview of the data available through TDS. Also contains information about how the component services that make up the TDS solution interact with each other.
TDS Bulk File Feed	Describes the technical requirements and specifications, processes and sample payloads for the TDS Bulk File Feed.
TDS Real Time Build Pack	Details the technical requirements and specifications, processes and sample payloads for the TDS Real Time Service.
TDS Bulk File History Build Pack	Details the technical requirements and specifications, processes and sample payloads for the TDS Bulk File History Service.
Identity and Access Build Pack	Details the Authentication mechanisms used by Inland Revenue.
Software Intermediation Build Pack	Details the technical requirements and specifications for the linking of Tax Agents/Customers to Service Providers to enable these links to be used by the Bulk File Feed and Bulk file History Service.
Intermediation Build Pack	Details the technical requirements and specifications querying the links between Tax Agents and Clients to enable these links to be used by the TDS Real Time queries.

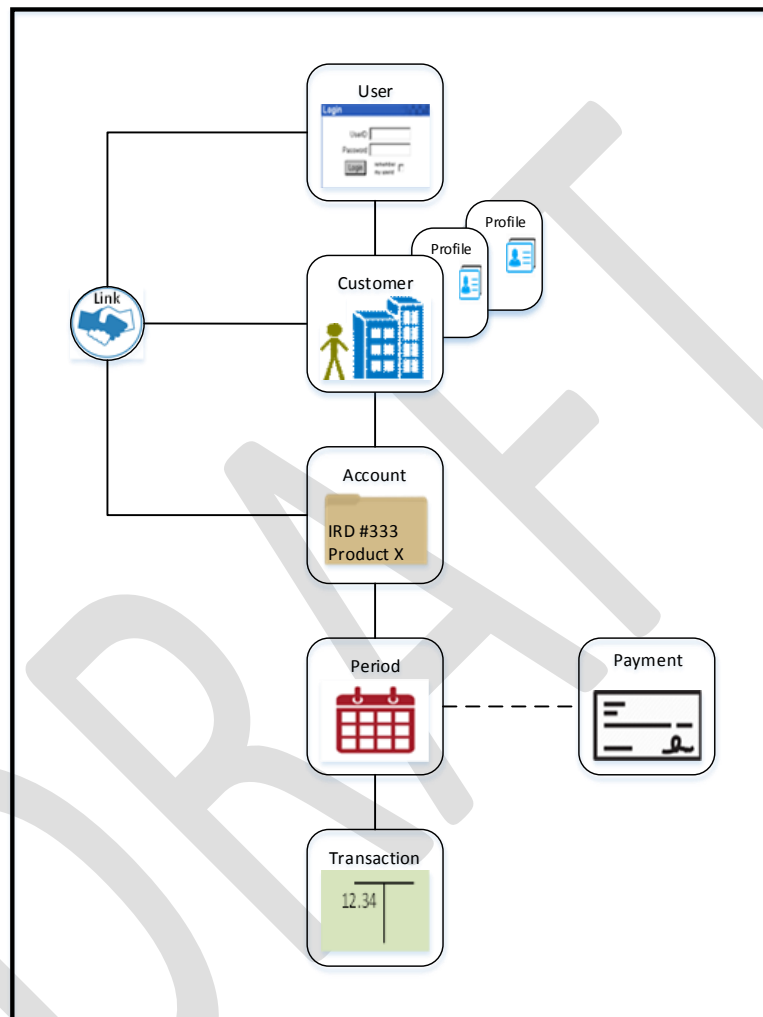
**Table 2: Related Documents Descriptions**



## 2 Data

### 2.1 Data Model

This section describes how the data in Inland Revenue's START system is structured. The diagram below provides a high level view of the model and the following table contains explanations.



**Figure 4: High Level representation of Data Model**

Entity	Description
<b>Customer</b>	<p>A Customer must exist in order for any of the other entities to be present.</p> <p>A Customer is a person or an organisation which:</p> <ul style="list-style-type: none"> <li>Has an IRD Number</li> <li>May have Users, but not necessarily</li> <li>May have many Accounts, but not necessarily</li> <li>May be linked to other Customers by a variety of types of relationships</li> <li>May have many profiles</li> </ul>

Entity	Description
<b>Profile</b>	<p>A Profile is a particular instance of a Customer, often a branch or location e.g. a large corporate could have a Head Office as the Customer and each branch can be a Profile. Each Profile can have separate accounts (e.g. for GST and FBT) and they will only be able to view the data for their Accounts.</p> <p>A Tax Agent can be linked to an account type for a profile but not be linked to the Customer i.e.</p> <p>Customer A has INC, GST, FBT <b>and</b> Customer B (Subsidiary of Customer A) has GST and FBT accounts <b>and</b> the Tax Agent is linked to Customer B accounts only</p>
<b>User</b>	<p>This is a web identity/credential associated to an actual person. It is owned by one Customer but can be Linked to Accounts belonging to other Customers.</p> <p>A User cannot exist without a Customer</p>
<b>Account</b>	<p>This is a ledger with an Account ID which includes the IRD Number Unlike FIRST a Customer might have many Accounts for a product/tax type – e.g. large corporate with many profiles. The old notion of multiple Locations is implemented as Profiles which are groupings of Accounts.</p> <p>Users can be linked to Accounts e.g. a Tax Agent linked to INC only for a Customer.</p>
<b>Link</b>	<p>Delegating access creates Links which can associate Users, Customers, Profiles and Accounts.</p> <p>Links allow Intermediaries to act on behalf of the Customer. The Intermediary must be “linked to” (i.e. have been delegated access to) the Customer or the Customer’s account(s).</p>
<b>Periods</b>	<p>Transactions are partitioned by period. Different accounts have different periods e.g. INC has a 12 month period, GST can have 2 months, 6 months, etc.</p> <p>See <a href="#">Data Scenarios</a> for an example of the data associated with a period.</p>
<b>Transactions</b>	<p>An individual activity recorded with a unique identifier on a specific day, relating to a specific Transaction Type with a specific Amount and Effective date.</p> <p>See <a href="#">Data Scenarios</a> for an example of the data associated with a period.</p>
<b>Payments</b>	<p>Payments can be Pending, Suspended, Locked or applied to a period. While pending or suspended (i.e. received but not yet created as a transaction in a period), payments do not appear as Transactions in the Accounts.</p> <p>Locked payments occur when a payment has been applied to a period where there is, as yet, no assessment. The payment is locked to ensure it cannot be applied against another outstanding amount.</p> <p>See <a href="#">Data Scenarios</a> below for an example of the data associated with the above situations.</p>

**Table 3: Data Entity Descriptions**

## 2.2 Data Items available through TDS

The following data items will be available through TDS:

Note: Not every field is available in every file. Check the [Build Pack](#) for each file to clarify the data provided with each feed.

Attribute	Description	Data Type	Length
<b>Account</b>			
IRD Number	Standard IRD Number	String	9
Account Type	The type of account – e.g. GST, INC	String	6
Filing Frequency	The filing frequency for the Account – See <a href="#">Appendix B Filing Frequency Codes</a>	Char	8
Account ID	The Identifier of the Account	String	30
Commence	Commencement Date of the Account	Date	8
Cease	Cessation Date of Account	Date	8
Balance	The Balance for the account in total	Currency	8
MaxActivity	The last date/Time of Activity on Account	DateTime	8
Conversion	The last date that data was converted into this Account	DateTime	8
<b>Period - * Short Period Summary data</b>			
Period *	The filing period of the Account – usually the last day of the period	Date	8
Filing Frequency	The filing frequency for the Account/period – See <a href="#">Appendix B Filing Frequency Codes</a>	Char	8
Period Begin	The first day of the period	Date	8
Period End	The last day of the period	Date	8
Assessment	The amount assessed	Currency	8
Penalty	The amount of Penalty applied	Currency	8
Interest	The amount of interest applied	Currency	8
Other	Amounts other than penalty, interest, payments or credit transfers in that have been applied to this period e.g. remission, write off or credit transfer out	Currency	8

Attribute	Description	Data Type	Length
Credit	Payments or credit transfers in which have been made for this period	Currency	8
Balance *	The Balance for the period	Currency	8
Max Period Activity *	The last date/time of activity on the account. This date should be compared to the last set of data received – not the last transaction Process date	DateTime	8
<b>Bank Account Transactions – for Direct Credits</b>			
Transaction ID	Transaction ID of the Refund which used this Bank Account	String	30
Bank Account Bank Number	The Bank where the Account is held	Char	12
Bank Account Branch Number	The branch number of the bank	String	30
Bank Account Number	Number of the bank account	String	34
Bank Account Number Suffix	Suffix to the bank account number	String	34
<b>Pending Payment</b>			
Payment ID	The unique identifier for the payment	String	30
Pending Amount	The amount of the payment	Currency	8
Pending Date	The date the payment was made pending	Date	8
<b>Transfer</b>			
IRD Number	The IRD number of the account to which the money went or from which it came	String	9
Transfer Account	The Account to which the amount was applied or from which it was received	String	6
Transfer Period	The period for that Account to which the amount has been applied – Period above	Date	8
Transaction ID	The unique identifier for the transaction	String	30
<b>Bill – Transactions are organised by Bill – each with a different due date</b>			
Bill ID	The Bill Number	String	30

Attribute	Description	Data Type	Length
Bill Due Date	The due date for the Bill	Date	8
Bill Credit	The amounts paid towards the Bill	Currency	8
Bill Balance	The Balance due on the Bill	Currency	8
<b>Transaction - Organised by Bill Number</b>			
Amount	The amount of the transaction	Currency	8
Transaction ID	The unique identifier for the transaction	String	30
Trans Type	The code for the Type of Transaction	String	6
Posted Date	The Posted Date for this transaction	DateTime	8
Effective Date	The Effective Date for this transaction	Date	8
Link ID	The unique identifier for a linked transaction e.g. a transaction which has been reversed by this transaction	String	30

**Table 4: Data available through TDS**

## 2.3 Accounts

**In START since April 2017**

FIRST Tax Type	START Account Type	Description	Notes	Amount of data available
GST	GST	Goods and services tax	<p>Already in START and will be made visible in Transaction Services.</p> <p>GST will have only one return assessment transaction other than reassessments.</p>	<p>All periods ending 30-Apr-2014 and onwards and prior periods which were still open at the time of conversion</p>

FIRST Tax Type	START Account Type	Description	Notes	Amount of data available
	GSD	GST on Goods sold in satisfaction of debt	<p>GSD enables a third party to account for and pay to IR, the GST from goods sold in satisfaction of debt.</p> <p>GSD can have multiple assessment transactions from the same return type. This is because each return can capture a separate transaction.</p> <p>Therefore a period can have multiple 'Return debit' transaction.</p>	All periods ending 28-Feb-2017 and onwards
	LGL	Legal Costs and Charges	The amounts determined by the Court to be charged for particular items such as Damages and Restitution. These will now be charged to a separate Account.	All daily periods 7 Feb 2017 and onwards

#### Being migrated to START in April 2018

FIRST Tax Type	START Account Type	Description	Notes	Amount of data available
DWT	DWT	Dividend withholding tax	Only one return assessment transaction other than reassessments.	All periods ending 30-Apr-2015 and onwards and prior periods which were still open at the time of conversion
IPE	IPE	Interest PAYE Exempt Receipts	A Customer can claim an over deduction of withholding throughout the year. This means multiple claims for different withholding could be in one period. A Customer can also apply for an exemption certificate.	
RWT	RWT	Resident Withholding Tax	Withholding tax which can have an annual reconciliation assessment and other regular assessments which can occur in the same period. The normal periodic return will create a 'Return debit' or 'Return Credit' transaction. The annual reconciliation return will post 'Annual return debit' or 'Annual return credit'.	
NRT	NRT	Non Resident Withholding Tax		
IPS	IPS	RWT deductions on interest		

FIRST Tax Type	START Account Type	Description	Notes	Amount of data available
RLT	RLT	Resident Land Withholding Tax(RLWT)	Multiple assessment transactions from the same return type. This is because each return can capture a separate transaction.  Therefore a period can have multiple 'Return debit' transactions.	
AIL	AIL	Approved issuer levy	Only one return assessment transaction other than reassessments.	All periods ending 30-Apr-2015 and onwards and prior periods which were still open at the time of conversion
FBT FBA FBI	FBT	Fringe Benefit Tax  FBA – Annual  FBI–Income Year	Migrating as FBT and will have 3 assessment codes and the possibility of two assessments in one period.  The normal quarterly return will have 'Return debit' or 'Return credit'.  The annual return will have 'Annual return debit' or 'Annual return credit'  The income year return will have 'Income year return debit' or 'Income year return credit'	All periods ending 30-Apr-2015 and onwards and prior periods which were still open at the time of conversion
GMD	GMD	Gaming machine duty  Problem Gambling Levy – aka PGL  GST on PGL	Only one return assessment transaction other than reassessments.	All periods ending 30-Apr-2015 and onwards and prior periods which were still open at the time of conversion

FIRST Tax Type	START Account Type	Description	Notes	Amount of data available
PIE	PIE	Portfolio investment entity tax	Only one return assessment transaction other than reassessments.	All periods ending 30-Apr-2015 and onwards and prior periods which were still open at the time of conversion
	PRS	Payroll Subsidy	This is a subsidy for customers who use a payroll intermediary to do their PAYE. Claims are received, validated against the PAYE employer monthly schedules received and paid out.	No data will be migrated. This account will start from a point in time.
	MPO	Multi Payment Option	A new Account Type which will be able to be entered through MyIR. A schedule will be uploaded with the payment and an MPO Account will be created for the record of the payment and the distribution. When credited to the individual accounts there will be an MPO Payment Type code and description associated with the transaction.	No data will be migrated. This account will start from a point in time.
	DSB	Disbursements	An account from which money can be disbursed	No data will be migrated. This account will start from a point in time.

**Table 5: Accounts available in START**

In general, Tax Types in FIRST will become Account Types in START. However, in START some FIRST Tax Types have been amalgamated e.g. FBT, FBA and FBI. Examples of how these Accounts will appear in TDS are included in [Data Scenarios](#) below.

Current Accounts will become available through TDS as they are migrated to Inland Revenue's START system. Prior to inclusion in TDS, Tax Types remaining in FIRST will continue to be available through the Tax Agent Web Service.

Once the data is available through TDS it will no longer be available through the Tax Agent Web Service. The table above details which Tax Types/Accounts will be included in TDS at April 2018. This table will be updated each time new Accounts become available through TDS.



## 2.4 Business Rules and Interpretation of Transaction Data from April 2018

With the transition to the new Inland Revenue system there are some particular conditions which will be managed in a different manner than the current system and which need to be taken into consideration.

### 2.4.1 Transfer Transactions

Technical constraints mean that destination/source information for Transfers between FIRST and START will not be available immediately through TDS. See Section 2.3 above for the Accounts for which full information will be available.

Where a transfer has occurred within START, TDS will provide IRD Number, Account, Period and Transaction ID. Where a transfer has occurred from START to FIRST or from FIRST to START, TDS will provide the same data but there may be a delay in providing the Period Data. Specifically, we will show FIRST to START transfers as soon as they are posted into a START account. A transfer will trigger a credit into the START period which would be immediately reflected in the bulk feed that night. For transfers from START to FIRST there may be a delay of at least 24 hours and possibly 48 hours before the Period will be shown in the Bulk File or Real Time Feed.

### 2.4.2 Multiple Assessment Transactions

#### 2.4.2.1 Audit Assessment for GST

For April 2017 to April 2018 GST audit assessments will have their own separate Assessment transaction. This means it will be possible to have an actual assessment and an audit assessment in the same return period. In FIRST the old assessment would reverse and a new assessment would be applied.

From April 2018 an Audit Assessment for all Accounts in START (including GST) will reverse and replace the existing assessment (unless it is an increased debit in which case the Audit Assessment will be for the difference between the original assessment and the audit assessment).

*Note: If an audit credit is applied a debit will not be applied as well – i.e. to enable a Bill to be available for any future changes.*

#### 2.4.2.2 FBT Assessments

FBT, FBA and FBI Tax Types have been consolidated into one account type in START – FBT. There will be three assessment Transaction Type Codes with the possibility of two assessments in one period.

#### 2.4.2.3 Withholding Tax

RWT, NRT and IPS Withholding Taxes can have an annual reconciliation assessment and other regular assessments which can occur in the same period. The normal periodic return will create a 'Return debit' or 'Return Credit' transaction. The annual reconciliation return will post 'Annual return debit' or 'Annual return credit'.

RLT (or Resident land Withholding Tax – RLWT) can have multiple assessment transactions from the same return type. This is because each return can capture a separate transaction. Therefore a period can have multiple 'Return debit' transactions

### 2.4.3 Bill

A bill is a series of transactions due on specific date, including the liability owing and any penalties and interest calculated. A period can be divided into a number of bill items to enable

correct calculation of penalties for the due date of the bill. TDS will record against each transaction the bill to which it relates and will also provide Bill reconciliations for each Period.

#### *2.4.4 Pending payments*

A payment may not be automatically applied to the period to which it relates until there is an assessment against which that payment can be recorded. Therefore payments are not always recorded as transactions until after the assessment transaction has been processed. For the time from receipt to the assessment being recorded as a transaction the payment is classed as Pending. TDS will record any such payments in a period each time transactions are sent for that period.

#### *2.4.5 Direct Credit Account*

Direct Credit account is the Bank Account Number used for any direct credits for the Period. The Transaction ID for the refund will be included with the Bank Account details to which the refund was paid.

#### *2.4.6 Rounding*

Any penalty and interest calculation provided has been calculated using "bankers" or "guassian" rounding.

#### *2.4.7 Transaction Items not sent*

In the Tax Agent Web Service when Clients are in Account Review or have an Account Halt in place no data is available. This will not apply in TDS. In addition where this data is present through the Tax Agent Web Service at the time of conversion it could be converted into START and may require manual reconciliation.

#### *2.4.8 Filtering of Inactive Transactions*

Previously some transactions were filtered as inactive in certain types of Tax Agent Web Service requests for Data. In TDS all transactions (i.e. everything START considers a transaction) will be sent through TDS. This includes all Reversals. Some of these transactions may require manual reconciliation.

### **2.5 New Account types to be included**

GSD and LGL Account transactions will be available through TDS.

### **2.6 START Transaction Codes**

A full list of START Transaction Codes is included in Appendix C of this document.

### **2.7 Data Integrity**

Inland Revenue will be providing all transaction data through TDS and will make every effort to ensure it is accurate, timely, consistent and complete. Inland Revenue wishes to be transparent about their activity with Customers and to ensure Service Providers, Tax Agents and Customers are provided with the most up to date and accurate data possible.

All TDS bulk data will be sent from a copy of Inland Revenue data made every evening. Therefore any data sent/received through TDS will be from close of business the previous day.

Despite best efforts inconsistencies can arise from time to time between the data held by the Service Provider/Tax Agent/Customer and Inland Revenue's master data set. Detecting and resolving inconsistencies is critical to the integrity of TDS.

Several mechanisms exist to assist in doing this:

- The check that all data held by Inland Revenue has been received by the Service Provider. To enable this check TDS Period Summaries include a 'period activity date'. This date is time stamped and represents the date and time of processing of the last transaction recorded at Inland Revenue for that period. This date and time should be recorded to check for a match each time data is received. If this does not match there is new transaction data. Note: The Period Summary also includes the Period Balance which is a secondary check. If this discrepancy has been detected a query should be made to the Real Time Feed for this Client, Account, Period to retrieve the latest data and reconcile.
- As a convenience, each period summary includes the migration date for that tax type as an additional attribute. Meaning the Tax Agent Web Service stopped operating for that Tax Type on that date and TDS started. All data through the History Service will be for transactions before that date, all data from the TDS Bulk Feed and Real Time web services will have Process Dates after that date.
- For each Tax Agent Web Service transaction that was converted into START the corresponding new Transaction ID used in the new system and TDS Feeds will be provided as a nested new TXID element. These represent the same historical transaction in a different format but should be able to be reconciled.
- For Real Time calls if Inland Revenue detects errors in the request, such as invalid IRD numbers; this will be reported back to the requestor. In this case the query should be retried using the correct data. The error codes are defined in the [Build Packs](#) for those services. If the Requestor does not receive any response to a request, it is RECOMMENDED that the request be re-tried.
- When business processing error conditions are detected by Inland Revenue e.g. error in SFTP of ZIP files, Inland Revenue will contact the parties concerned. If a file fails to send contact will be made by IR. The available business condition status codes and the recommended action to be taken in each case are defined in the [Build Pack](#) for the Bulk File.
- In general if an anomaly is found please notify Inland Revenue through normal channels.

### 2.7.1 Channel Consistency

It is possible for a Client of an Intermediary to query their own tax information and come up with seemingly 'different' data. This can occur when there is a time gap between the night time generation of the Bulk File sent each day and the MyIR query which may expose transactions not present at the time the Bulk File was generated. Activity in the intervening time period could provide inconsistency.

*Note: The Transaction Types visible in MyIR are a combination of multiple START Transaction Types and do not have the level of detail present in TDS Transaction Types. The aggregated Transaction Type Descriptions however, ensure although they are recognisable e.g.*

START Transaction Code	START Description	MyIR Description
<b>CNVTXC</b>	Converted return credit	Assessment
<b>CNVTXD</b>	Converted return debit	Assessment
<b>RTNANC</b>	Annual return credit	Assessment
<b>RTNAND</b>	Annual return debit	Assessment
<b>RTNCRD</b>	Return credit	Assessment
<b>RTNINC</b>	Income year return credit	Assessment
<b>RTNIND</b>	Income year return debit	Assessment
<b>RTNORI</b>	Return debit	Assessment

**Table 6 : START and MyIR Transaction Codes**

## 2.8 Data Scenarios

The Data Scenarios for data in Transaction Data Services are listed below. The detail of how these Accounts will translate into data in Transaction Data Services is shown in the following spreadsheet.

- Late Payment Penalties
- OUM Over Time
- Reassessment
- Default Assessment
- Transfer
- Writeoff
- Remission
- Payment
- FBT
- GSD
- RWT
- DWT



TDS Overview and  
Transition Data Scen

## 2.9 Data Conversion from Tax Agent Web Service to START

The conversion of Inland Revenue data in February 2017 (GST only) and April 2018 (as per Table 5 above) can cause some differences between the Tax Agent Web Service and TDS data. These differences are identified below.

(Also, see Data Conversion Scenarios spreadsheet below for examples.)

### 2.9.1 *Penalty transactions*

The initial 1% late payment penalty, initial 4% late payment penalty and the monthly incremental late payment penalties have been combined into one 'converted penalty' transaction. This transaction will have a Transaction Type CNVPNL Converted penalty.

Penalty remissions have been combined into one 'converted penalty remission' transaction. This transaction will have a Transaction Type CNVRPN Converted penalty remission.

### 2.9.2 *Increased debit reassessments*

Where a period being converted contains more than one assessment and the later assessment is for an increased amount, the conversion of the increased assessment will not include a reversal of the first assessment and will include another assessment of the difference between the two amounts. This allows for different due dates for each amount. The FIRST assessment and reassessment transaction will both have a START Transaction Type RTNORI Return debit. This will not be an automatic match for data previously retrieved through Tax Agent Web Service.

### 2.9.3 Unique transaction identifier

The sequential transaction numbering used in the Tax Agent Web Service has been replaced with a unique identifier in START which will not be sequential. Service Providers may have used this sequential numbering to check they are not missing any data from IR. This is not able to be accommodated by Inland Revenue within TDS.

TDS is offering a different mechanism for checking for missing transactions where each period summary will include the process date and time of the last transaction in the Account. The date/time can be checked against the last period summary to verify it has not changed. Full period summary details will be provided in the weekly Bulk File Feed.

At the time of conversion any aggregated transactions will, in the History Transactions Service, contain the unique transaction ID of the START transaction in which they have been aggregated. This will allow Service Providers to support reconciliation between the Tax Agent Web Service data and TDS data.

### 2.9.4 Conversion Scenario

This spreadsheet contains an example of data conversion from Tax Agent Web Service to START where there was an original assessment converted with Late Payment Penalties and UOMI and then further Late Payment Penalties and UOMI applied after conversion.

There are notes in the spreadsheet explaining the transition from the current system through the [History Bulk File](#) and then to START. This includes a means of reconciling the data from the Tax Agent Web Service system with the START data. Tax Agent Web Service Transaction Types are used in the History File to enable this reconciliation. A full list of these transaction Types is included in Appendix D.

The History Bulk File will contain data as it would have appeared in the Tax Agent Web Service.



TDS Overview and  
Transition Data Conv

### 3 Use cases

Transaction Data Services provides data for an overall business process that is controlled by the Service Provider software and user, rather than IR.

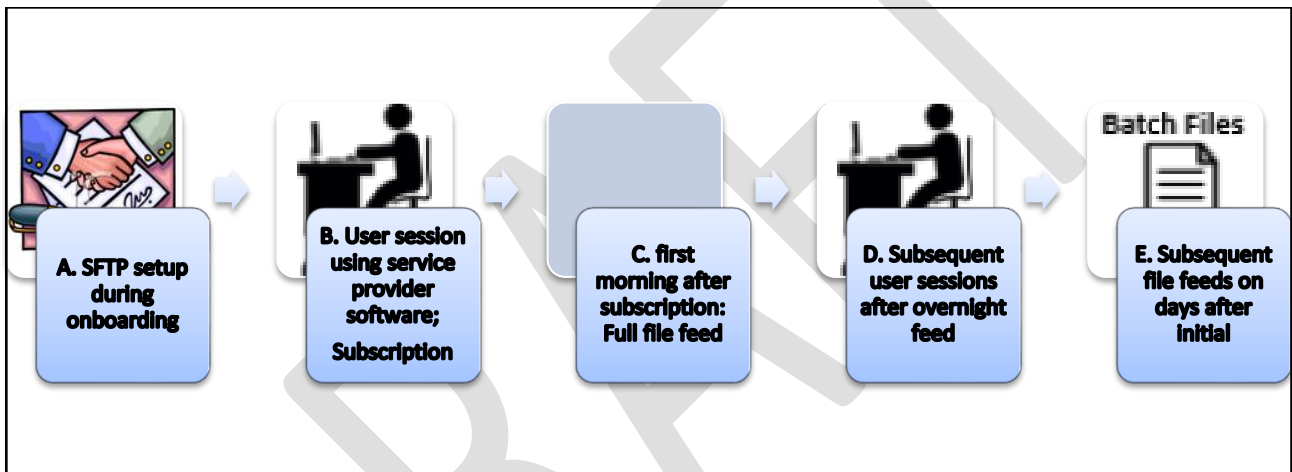
This section introduces the overall typical sequence of events, then the use cases. The next section strings those together into sample processes and scenarios.

#### 3.1 Overall typical sequence of events

A very simplified overall sequence of typical events is described below for the TDS Bulk Feed, History Bulk Feed and the Real Time Service.

##### 3.1.1 High level typical bulk feed sequence

The overall sequence is described below:



**Figure 5: Sequence of Bulk File Feed**

Versions of this diagram and the steps involved are used in explaining the sample scenarios in the sections below.

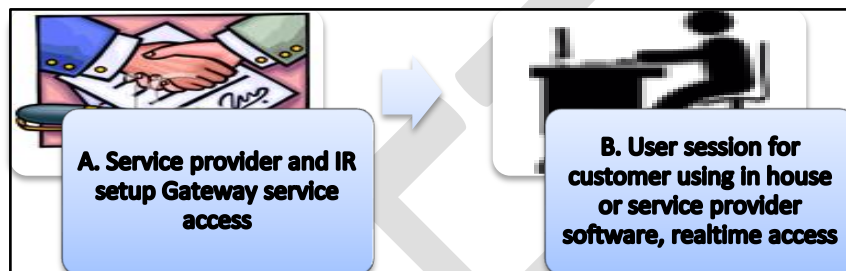
- **Stage A:** This is the initial on-boarding of a Service Provider that wishes to consume the TDS Bulk File Feed. For more on stage A refer to the [TDS Onboarding Pack](#).
- **Stage B:** The User can access Inland Revenue via the TDS Real Time service. For regular daily updates on high volumes of Customer data a bulk file feed needs to be set up. For Inland Revenue to know which Customer information to send to a given Service Provider, a link is required between the Service Provider and their Tax Agents or their direct Customers Accounts. This link is created via the Intermediation Service initiated by the customer via the Service Provider software. Full details of the Intermediation service are provided in the [Intermediation Build Packs](#). Once linked, the next Bulk File will include details for this User's Customers.
- **Stage C:** An initial file transfer occurs, containing a full set of Customer data – Both Converted and History.
- **Stage D:** When the user logs in to the software again, the content of the bulk files will be incorporated by the Service Provider software into what the user can see. They can still augment that with Real Time calls.

- **Stage E:** This is an incremental file transfer, containing data that has changed since the previous file was provided. Again the Service Provider software will incorporate that for the user to have access to on their next login.

There can be many variations to this process. For more detail in the case of a Tax Agent see sample process scenario 1 below – Section 4.2.1.

### 3.1.2 High level typical real time sequence

Below is an outline of the process for an organisation that chooses to use TDS for their own data and does not enlist for the bulk file feed. A simplified onboarding stage will precede access to the TDS Real Time Service in this case. See sample process scenario III below – Section 4.2.1.



**Figure 6: Sequence of Real Time access only**

- **Stage A:** This is the initial onboarding of a Service Provider that does not wish to consume the TDS Bulk File Feed. This only then requires the ability to call Gateway Services. The overview process for this will be included in the [TDS Onboarding Pack](#).
- **Stage B:** The user can access Inland Revenue via the TDS Real Time service.



### 3.3 Use Cases

The types of use case within this overall business process are many and diverse. An effort has been made below to generalise these to ensure Inland Revenue provides sufficient detail for Service Providers.

This list is neither exhaustive nor meant to represent every combination of process that the Customer or Service Provider may execute.

In support of this the following diagram illustrates the multiple levels of use cases involved in TDS and how they are related to each other. Refer to the table following it for an explanation:

#### 3.3.1 Use Case Diagram

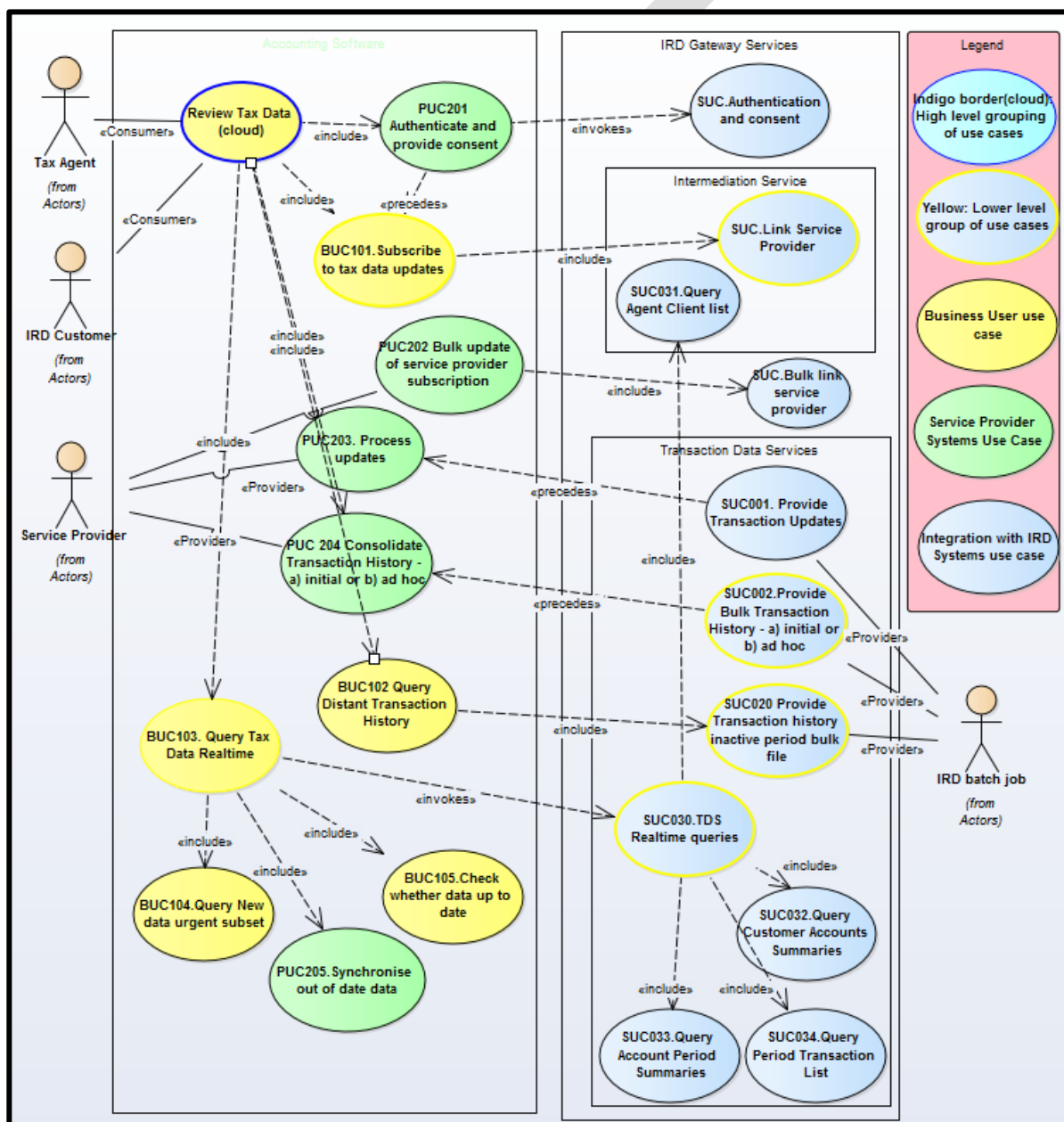


Figure 7: Use Case Diagram



### 3.3.2 Use Case Types

Use cases have been classified into the following types:

Use case Group	Description	Colour	Use Case	Build Pack
<b>Tax Agent /Customer</b>	Use cases specific to the Customer / Tax Agent point of view	Yellow	BUC101 Subscribe to tax data updates	This document
			BUC102 Query Distant Transaction History	This document
			BUC103 Query Tax Data real-time	This document
			BUC104 Query New data urgent subset	This document
			BUC105 Check whether data up to date	This document
<b>Service Provider</b>	Some systems use cases on the Service Provider side are not user driven and broader than the integration with IR	Green	PUC201 Authenticate and provide and consent	This document
			PUC202 Bulk update of service provider subscription	This document
			PUC203 Process updates	This document
			PUC204 Consolidate Transaction History - a) initial or b) ad hoc	This document
			PUC205 synchronise out of date data	This document
<b>Systems use cases</b>	The corresponding technical steps inside the above use cases which are required to integrate with IR	Blue	SUC Authentication and consent	Identity & Access Build Pack
			SUC Link Service Provider	Software Intermediation Build Pack
			SUC Bulk Link Service Provider	This document, see PUC202
			SUC001 Provide Transaction Updates	TDS Bulk File Build Pack
			SUC002 Provide Bulk Transaction History - a) initial or b) ad hoc	TDS History Bulk File Build Pack
			SUC020 Provide transaction history inactive period bulk file	TDS History Bulk File Build Pack

			SUC030 TDS real-time queries	TDS Real-time Build Pack
			SUC031 Query Agent Client List	Intermediation Build Pack
			SUC032 Query Customer Account Summaries	TDS Real-time Build Pack
			SUC033 Query Account Period Summaries	TDS Real-time Build Pack
			SUC034 Query Period Transaction List	TDS Real-time Build Pack

**Table 7: Use Case Types and related documentation**

DRAFT

### 3.4 Use cases described

#### 3.4.1 Use Case PUC201 Authenticate and provide consent

This use case is included here at a high level for completeness. Full details of authentication are in the [Identity and Access Build Pack](#).

PUC201 – Authenticate and provide consent	
<b>Primary Actor</b>	Customer/Tax Agent
<b>Secondary Actor</b>	Service Provider or Accounting Software Inland Revenue Identity and Access Service
<b>Description</b>	The goal of the user is to provide security details which enable the request for transactional details to be processed.
<b>Inland Revenue systems involved</b>	Gateway Services, START
<b>Pre-Conditions</b>	<p>User is licensed and has access to Service Provider or Accounting Software and is authenticated, authorised and logged-in to that software.</p> <p>User has Inland Revenue online service credential with delegated access to related tax accounts. This might be as employee of the entity or an employee of a Tax Agency.</p> <p>Service Provider or Accounting Software is Onboarded and therefore authorised to communicate with TDS (<a href="#">See Onboarding Pack for TDS</a>).</p> <p>The user has taken an action in the Service Provider or Accounting Software that indicates they wish to receive tax data that they have access to at IR.</p> <p>The Service Provider or Accounting Software Provider has explicit consent from the user for receiving data for their clients.</p> <p>The party whose data is to be subscribed to needs to be identified – one the user has delegated access to.</p>
<b>Triggers</b>	The request is sent using user's Service Provider or Accounting software.
<b>Constraints</b>	
<b>Post-Conditions</b>	The user request is accepted for processing
Use Case Scenarios	
1. Normal Flow	<ol style="list-style-type: none"> <li>1. The user lodges a valid request with Inland Revenue</li> <li>2. Inland Revenue provides a valid unexpired OAuth2 token to the user.</li> <li>3. Inland Revenue records successful validation.</li> <li>4. Use Case Ends.</li> </ol>

PUC201 – Authenticate and provide consent	
2. Exception Flows	<p>In all the cases below the relevant error code will be returned. Request could be rejected because of:</p> <ol style="list-style-type: none"> <li>1. Invalid Service Provider ID or incomplete <a href="#">onboarding</a></li> <li>2. Invalid Tax Agency or Customer ID</li> <li>3. Missing delegated permissions for logged in user to see tax information of the requested Tax Agency or Customer - MyIR can be used to validate the information provided</li> <li>4. Unavailability of or internal error on the gateway services. Please contact Inland Revenue support.</li> <li>5. The request message is garbled /unreadable - Inland Revenue sends the user a Signal Error Response Message.</li> <li>6. There is an internal error within Inland Revenue IT - Inland Revenue IT responds to user with appropriate message.</li> <li>7. The User name and/or password are incorrect - Inland Revenue IT responds to user with appropriate message and records the access attempt.</li> <li>8. The user is valid, however doesn't have the correct permissions to use this service - For example: Is not a Tax Agent. Or, User has had their access revoked. Inland Revenue records the access attempt.</li> <li>9. The structure of the information in the User Request is invalid. (i.e. does not conform to XML standard) - IT records failure and responds to user with appropriate message.</li> <li>10. The request information fails data validation checks - For example: Client IRD number is not 8-9 digits, fails modulus 11 checks - Inland Revenue IT fails request, records failure and responds to user with appropriate message</li> </ol>
Alternative Flows	No alternatives

**Table 8: Use case PUC201 Authenticate and provide consent**

### 3.4.2 Use Case BUC101- Subscribe to tax data updates

<b>BUC101- Subscribe to tax data updates</b>	
<b>User/Actors</b>	Customer/Tax Agent
<b>Secondary Actors</b>	Service Provider or Accounting Software IT Transaction Data Services
<b>Description</b>	<p>The user goal is to subscribe to bulk transaction updates for their Customers or Organisation.</p> <p>It is expected that in the initial uptake of the bulk feed or history bulk feed all Service Providers will provide Inland Revenue with a list of users to invoke PUC202 - Bulk Update of Service Provider Subscription - in advance of the first full file feeds (included below).</p> <p>This use case is for links not established in that initial phase.</p>
<b>Inland Revenue systems involved</b>	Inland Revenue's Gateway Intermediation Service, Identity and Access Service
<b>Pre-Conditions</b>	<p>User is licensed and has access to Service Provider or Accounting software and is authenticated, authorised and logged-in to that software.</p> <p>User has Inland Revenue online service credential with current authorised access to relevant tax accounts. This might be as employee of the entity or as employee of a Tax Agency.</p> <p>Service Provider or Accounting Software is Onboarded and therefore authorised to communicate with TDS (<a href="#">See Onboarding Pack for TDS</a>).</p>
<b>Triggers and Constraints</b>	<p>The user takes an action in the Service Provider or Accounting Software that indicates they wish to have the tax data that they have access to at Inland Revenue pushed regularly to the Service Provider software.</p> <p>Depending on how the Service Provider software is structured this might be on first logging in, on first requesting Inland Revenue data to be pulled in, or an explicit request to have updates happen in the background.</p> <p>Whichever way this is done, the Service Provider needs explicit consent from the user for subscribing to updates.</p>

<b>BUC101- Subscribe to tax data updates</b>	
<b>Constraints</b>	<p>The request must be sent using user's Service Provider or Accounting Software.</p> <p>User must have a valid login token. This could happen at just prior to the start of this use case or might have happened previously.</p> <p>That login token must be available to the Service Provider or Accounting Software. If that login has timed out it might need to be repeated.</p> <p>The party whose data is to be subscribed to needs to be identified – one the OAuth2 token user has delegated access to.</p> <p>User must be authorised at Inland Revenue as a Tax Agent for that Customer (or delegated employee of the Customer), and therefore authorised to view data for that Customer and Account.</p>
<b>Post-Conditions</b>	<p>A subscription link will be in place between the Service Provider or Accounting software and the party the user credential represents – whether Tax Agency or Customer.</p> <p>This subscription link will cause a file with an initial full dump and then daily and weekly updates to be added to any zip files the Service Provider is receiving from Inland Revenue daily.</p> <p>This content will be assimilated by the Service Provider so the user on subsequent sessions using the Service Provider or Accounting software will see recent changes and new transactions reflected.</p>
<b>Use Case Scenarios</b>	
1. Normal Flow	<p>See the systems use case in <a href="#">Software Intermediation Build Pack</a> for the single step of interacting with Inland Revenue .</p> <p>The steps before and after that depend on the Service Provider or Accounting software, and are summarised in the preconditions and post conditions above.</p>
2. Exception Flows	<p>The variations depend on Service Provider and Accounting software. See the systems use case in <a href="#">Software Intermediation Build Pack</a> for exception flows around calling the Inland Revenue technical service.</p>
3. Alternatives	<p>It is expected all Service Providers in the initial uptake of the bulk feed or history bulk feed provide Inland Revenue with a list of users to in advance of the first full file feeds – see PUC202 - Bulk Update of Service Provider Subscription – below.</p>

**Table 9 : BUC101 - Subscribe to tax data updates**

### 3.4.3 Use Case PUC202 Bulk Update of Service Provider Subscription

Also 'SUC Bulk Link Service Provider'

Note: This is a Transition Use case for the one off purpose of loading Links between Service Providers and their Customers/Tax Agents. In future this will be managed by SUC010 – detailed in the [Software Intermediation Build Pack](#).

PUC202 - Bulk Update of Service Provider Subscription	
<b>User/Actors</b>	Service Provider
<b>Secondary Actor</b>	START
<b>Description</b>	<p>The goal of the Service Provider is to update multiple Inland Revenue links at once between Service Provider and Tax Agent or Service Provider and Customer.</p> <p><i>Note: This is expected to be a one-off service provided at transition.</i></p>
<b>Inland Revenue systems</b>	START
<b>Pre-Conditions</b>	<p>Service Provider is Onboarded and therefore authorised to communicate with TDS (<a href="#">See Onboarding Pack for TDS</a>)</p> <p>It is expected all Service Providers that are part of the initial uptake of the bulk feed or history bulk feed provide Inland Revenue with a list of users to link in advance of the first full file feeds.</p> <p>It is expected that the Service Provider has explicit consent from the Tax Agent or Customer to create a link between them.</p>
<b>Triggers</b>	File sent from Service Provider of the IRD Numbers of all their Tax Agents and direct Customers to be linked.
<b>Constraints</b>	This bulk linking will happens once only during each group of tax type transitions to the new Inland Revenue systems.
<b>Post-Conditions</b>	A subscription link will be in place between the Service Provider or the Accounting software and the Tax Agencies or Customers using their software.
Use Case Scenarios	
1. Normal Flow	<ol style="list-style-type: none"> <li>1. Service Provider provides Inland Revenue with Customer list to be uploaded</li> <li>2. Inland Revenue uploads file and creates link between Service Provider and Customer/Tax Agent (SUC Bulk Link Service Providers)</li> <li>3. Use case ends</li> </ol>
2. Exception Flows	This is a one off exercise and any fallout from the upload will be communicated directly to the Service Provider concerned.
3. Alternatives	<p>No alternatives for initial Service Provider transition.</p> <p>For additional users linked later the web service will be used – see BUC101.</p>

**Table 10 : PUC202 Bulk Update of Service Provider Subscription**

### 3.4.4 Use Case PUC203 Process Updates

PUC203 – Process Updates	
<b>User/Actors</b>	Service Provider Software or Accounting software
<b>Secondary Actor</b>	Inland Revenue Transaction Data Services
<b>Description</b>	The user goal is to process data received from TDS for later presentation through the software.
<b>Inland Revenue systems involved</b>	Bulk File
<b>Pre-Conditions</b>	<p>Service Provider or Accounting Software is Onboarded and therefore authorised to communicate with TDS (<a href="#">See Onboarding Pack for TDS</a>).</p> <p>The Service Provider or Accounting Software is set up as a receiver of daily transaction data updates from Inland Revenue as bulk files over SFTP.</p> <p>It is expected all Service Providers in the initial uptake of the bulk feed or history bulk feed provide Inland Revenue with a list of users to invoke PUC202 - Bulk Update of Service Provider Subscription in advance of the first full file feeds.</p>
<b>Triggers</b>	<p>Inland Revenue daily batch processing for Service Provider subscription generates files. These files are added to zip files, PGP signed and encrypted which are sent to the Service Provider at an onboarded SFTP location waiting for it.</p> <p>This subscription link will cause a file with an initial full dump and then daily updates to be added to any zip files the Service Provider is receiving from Inland Revenue daily.</p>
<b>Constraints</b>	
<b>Post-Conditions</b>	The updates have been assimilated within the Service Provider or Accounting Software so a Tax Agent or Customer on subsequent sessions using the Third Party Software will see the data reflected.
Use Case Scenarios	
1. Normal Flow	<p>The steps after the SFTP transfer completes depend on the Service Provider or Accounting Software</p> <p>Once all the file content has been transferred the Service Provider will process the file content and make it available to the software instances used by the users of the requesting organisations.</p>
2. Exception Flows	The variations depend on Service Provider software and Accounting software.
3. Alternatives	No alternatives

**Table 11: PUC203 Process Updates**



### 3.4.5 Use Case PUC204 Consolidate Transaction History

<b>PUC204 - Consolidate Transaction History</b>	
<b>User/Actors</b>	Service Provider or Accounting Software
<b>Secondary Actor</b>	Inland Revenue Transaction Data Services
<b>Description</b>	<p>The user goal is to consolidate transaction history data for a Customer for later presentation through their software.</p> <p>Note: This use case is for Tax Agents using Service Provider software where they already have Customer data from the Tax Agent Web Service and where they have annotated or linked in this Tax Agent Web Service data.</p> <p>This use case facilitates replacing that Tax Agent Web Service data with new migrated TDS START data. The use case plugs possible gaps in the previously received history for that period and relates it to the new transaction IDs. This allows the Service Provider software and or Tax Agent to move the annotations or links from the Tax Agent Web Service data to the new TDS START data and use that as the point of reference going forward.</p>
<b>Inland Revenue systems</b>	Intermediation Service, Identity and Access Service (IAS)
<b>Pre-Conditions</b>	<p>Service Provider or Accounting Software is Onboarded and therefore authorised to communicate with TDS (<a href="#">See Onboarding Pack for TDS</a>)</p> <p>Either the Customer or the Tax Agent has been linked to the Service Provider for their use of that Service Provider's software in Inland Revenue's Software Intermediation Service – See Onboarding and Build Pack for <a href="#">Intermediation Service</a>.</p>
<b>PUC204 a)</b>	<b>Consolidate Transaction History – a) initial</b>
<b>Pre-Conditions</b>	In addition to the above the Service Provider has to be linked to the Tax Agent or Customer at the time of Inland Revenue cutover to be included in this bulk one off feed. This requires the Service Provider to provide relevant Tax Agent or user IRD numbers to Inland Revenue for bulk linking – see PUC202 above.
<b>Triggers</b>	The Third Party Software receives Transaction History Bulk File from IR.
<b>Constraints</b>	
<b>Post-Conditions</b>	The Transaction History data has been assimilated within the Service Provider or Accounting Software so a Tax Agent or Customer on subsequent sessions using the Service Provider or Accounting Software will see the historic data reflected.

## PUC204 - Consolidate Transaction History

### Use Case Scenarios

1. Normal Flow	<ol style="list-style-type: none"> <li>1. Service Provider or Accounting Software receives Transaction History Data through TDS History Bulk File Feed - see the systems use case (SUC 002 in <a href="#">TDS History Bulk File Feed Build Pack</a>) for details.</li> <li>2. The steps within the Service Provider or Accounting Software depend on that software. In principle: <ol style="list-style-type: none"> <li>a. Tax Agent Web Service data would already be stored and will be matched with this data through the original Tax Agent Web Service transaction ID links. Gaps in the kept Tax Agent Web Service data would then also be filled.</li> <li>b. Those Tax Agent Web Service transactions will then be matched to the new TDS data from the TDS bulk feed (non-history) to prevent duplication.</li> <li>c. The Tax Agent Web Service data will typically be replaced with the new data over time and links and annotations will be moved across.</li> </ol> </li> <li>3. Use case ends</li> </ol>
2. Exception Flows	<p>The variations depend on Service Provider or Accounting Software.</p> <p>See the systems use case (SUC 002 in <a href="#">TDS History Bulk File Feed Build Pack</a>) for exception flows around the use of the TDS History Feed technical service.</p>
3. Alternatives	No alternatives
<b>PUC204 b)</b>	<b>Consolidate Transaction History – b) Ad hoc</b>
<b>Pre-Conditions</b>	<p>In some cases audits or other events cause Inland Revenue to have to manually convert additional history periods into START. This data will show up in the TDS bulk feed.</p> <p>In cases where the Tax Agent in the Service Provider software already has equivalent Tax Agent Web Service data and also has annotations or links next to it requiring consolidation, rather than just replacement of the data this use case can be invoked.</p>
<b>Triggers</b>	The Service Provider software receives Transaction Bulk File from TDS that contains a new converted period, correlating with Tax Agent Web Service data already existing in that software and possibly already annotated or linked.
<b>Constraints</b>	
<b>Post-Conditions</b>	The Transaction History data has been assimilated within the Service Provider or Accounting Software so a Tax Agent or Customer will see the historic data reflected on subsequent sessions using the Service Provider or Accounting Software.

<b>PUC204 - Consolidate Transaction History</b>	
<b>Use Case Scenarios</b>	
1. Normal Flow	<ol style="list-style-type: none"> <li>1. Tax Agent or Customer request history bulk file for Account/Period from Inland Revenue through process set up by Service Provider and agreed during onboarding phase</li> <li>2. Service Provider software facilitates the capturing of the needed IDs, including potentially               <ol style="list-style-type: none"> <li>a. Software Intermediary ID</li> <li>b. Agent ID (if any)</li> <li>c. Client ID (agent client or Service Provider Customer)</li> <li>d. Account Type (if specific)</li> <li>e. Client Period From (if not default conversion set)</li> <li>f. Client Period To (if not up to conversion date)</li> </ol> </li> <li>3. The process whereby the user makes this ad hoc request and sends it to Inland Revenue will be agreed during the onboarding phase with the Service Provider - it might be a well-structured email for which Inland Revenue provides a template.</li> <li>4. Service Provider or Accounting Software receives Transaction History Data through TDS History Feed - see the systems use case (SUC 002 in <a href="#">TDS History Bulk File Feed Build Pack</a>) for details.</li> <li>5. The steps within the Service Provider or Accounting Software depend on that software. In principle:               <ol style="list-style-type: none"> <li>a. Tax Agent Web Service data would already be stored and will be matched with this data through the original Tax Agent Web Service transaction ID links. Gaps in the kept Tax Agent Web Service data would then also be filled.</li> <li>b. Those Tax Agent Web Service transactions will then be matched to the new TDS data from the TDS bulk feed (non-history) to prevent duplication.</li> <li>c. The Tax Agent Web Service data will typically be replaced with the new data over time and links and annotations be moved across.</li> </ol> </li> <li>6. Use case ends</li> </ol>
2. Exception Flows	<p>The variations depend on Service Provider or Accounting Software</p> <ol style="list-style-type: none"> <li>1. See the systems use case (SUC 020 in <a href="#">TDS History Bulk File Feed Build Pack</a>) for exception flows around the use of the TDS History Feed technical service.</li> </ol>
3. Alternatives	No alternatives

**Table 12: PUC204 – Consolidate transaction history**

### 3.4.6 Use Case PUC205 Synchronise out of date data

<b>PUC205 – Synchronise out of date data</b>	
<b>User/Actors</b>	Service Provider or Accounting Software
<b>Secondary Actor</b>	Inland Revenue Transaction Data Services
<b>Description</b>	<p>The user goal is to update and synchronise data within a period (or possibly periods) where the Bulk File Feed Period Summary data has shown that the Service Provider software does not hold up to date data.</p> <p>This will manifest as either Period Balance or Last Activity Date (or both) sent in the overnight Bulk File not matching data already held by the Software when there are no transactions identified to account for the difference.</p>
<b>Inland Revenue systems</b>	Gateway Services
<b>Pre-Conditions</b>	Service Provider, Accounting Software, Tax Agent or Customer has requested data through TDS Real Time and request has been received and responded to by IR.
<b>Triggers</b>	The Service Provider or Accounting Software receives the response to the Real Time Query.
<b>Constraints</b>	
<b>Post-Conditions</b>	The Account/Period data has been updated in the Service Provider or Accounting software; is synchronised and presented to the requestor through that software.
<b>Use Case Scenarios</b>	
1. Normal Flow	<ol style="list-style-type: none"> <li>1. Service Provider or Accounting Software receives response to Real Time query for Account/Period data</li> <li>2. The steps within the Service Provider or Accounting Software depend on that software. In principle Account/Period data would already be stored and will be matched with this data to establish and accept any missing transaction(s).</li> <li>3. Use case ends</li> </ol>
2. Exception Flows	The variations depend on Service Provider or Accounting Software
3. Alternatives	No alternatives

**Table 13 : PUC205 – Synchronise out of date data**

### 3.4.7 Use Case BUC102 Query Distant Transaction History

<b>BUC102 - Query Distant Transaction History</b>	
<b>User/Actors</b>	Customer/Tax Agent
<b>Secondary Actor</b>	Service Provider or Accounting software Inland Revenue
<b>Description</b>	<p>The user goal is to look at old transaction history that is not available in TDS START data or in MyIR and that they do not already have from the Tax Agent Web Service.</p> <p>This data is not part of an active open period and therefore not expected to be processed by the Service Provider, merely displayed to the user.</p> <p>An example might be where a Tax Agent looks at open income tax periods and wants to look at the history of very old GST periods.</p> <p>This use case would be for Service Providers shortly after conversion to provide a more extensive view into the history of a Client.</p> <p>This use case requires processing data in the Tax Agent Web Service format. See Appendix D for Tax Agent Web Services Transaction Type Codes and Descriptions.</p> <p>Inland Revenue is still considering how far back a request can be made for and how widely accessible this functionality will be.</p>
<b>Inland Revenue systems</b>	Gateway Services, Identity and Access Service (IAS)
<b>Pre-Conditions</b>	<p>User is licensed and has access to Service Provider or Accounting Software and is authenticated, authorised and logged in to that software.</p> <p>User has Inland Revenue online service credential with current authorised access to relevant tax accounts. This might be as an employee of the Customer or as an employee of a Tax Agency.</p> <p>Service Provider or Accounting Software is Onboarded and therefore authorised to communicate with TDS (<a href="#">See Onboarding Pack for TDS</a>).</p>
<b>Triggers</b>	<p>The user requests transaction detail for a specific Customer by Account and by Period through the Service Provider or Accounting Software for a period older than those available in START and TDS Real Time or TDS Bulk.</p> <p>Note: The format of this request is not yet decided</p>
<b>Constraints</b>	Not yet determined
<b>Post-Conditions</b>	The data requested by the User is presented by the Service Provider or Accounting Software.

## BUC102 - Query Distant Transaction History

### Use Case Scenarios

1. Normal Flow	<ol style="list-style-type: none"> <li>1. User initiates request for data for a specific Customer, Tax Type and Period in their Service Provider or Accounting Software</li> <li>2. Software facilitates the capturing of the needed IDs, including potentially: <ol style="list-style-type: none"> <li>a. Software Intermediary ID</li> <li>b. Agent ID (if any)</li> <li>c. Client ID (Client of an Agent or Service Provider customer)</li> <li>d. Account Type (if specific)</li> <li>e. Client Period From (if not default conversion set)</li> <li>f. Client Period To (if not up to conversion date)</li> </ol> </li> <li>3. The process whereby the user makes this ad hoc request and sends it to Inland Revenue will be agreed during the onboarding phase with the Service Provider - might be a structured email for which Inland Revenue provides a template.</li> <li>4. Service Provider or Accounting software receives that data in file from TDS (part of overnight Bulk File Feed) - See systems use case SUC 020</li> <li>5. Service Provider or Accounting Software receives the response</li> <li>6. Service Provider or Accounting Software assimilates the data</li> <li>7. Service Provider or Accounting Software presents the data to the user</li> <li>8. Use case ends</li> </ol>
2. Exception Flows	Any variations depend on Service Providers and Accounting Software packages.
3. Alternatives	No alternatives

**Table 14: BUC102 Query Distant Transaction History**

### 3.4.8 Use Case BUC103 Query Tax Data Real Time

<b>BUC103 - Query Tax Data Real Time</b>	
<b>User/Actors</b>	Customer/Tax Agent
<b>Secondary Actor</b>	Service Provider or Accounting software Inland Revenue Transaction Data Services
<b>Description</b>	The user goal is to be presented with up to date real time data for a specific Customer for a specific Account and Period.
<b>Inland Revenue systems</b>	Gateway Services, Identity and Access Service (IAS)
<b>Pre-Conditions</b>	<p>User is licensed and has access to Service Provider or Accounting Software and is authenticated, authorised and logged in to that software.</p> <p>User has Inland Revenue online service credential with current authorised access to relevant tax accounts. This might be as an employee of the Customer or as an employee of a Tax Agency.</p> <p>Service Provider or Accounting Software is onboarded and therefore authorised to communicate with TDS (<a href="#">See Onboarding Pack for TDS</a>)</p>
<b>Triggers</b>	The user requests transaction detail for a specific Customer by Account and by Period through the Service Provider or Accounting Software.
<b>Constraints</b>	<p>The request must be sent using the user's Service Provider or Accounting Software.</p> <p>User must have a valid login token. (This could happen just prior to the start of this use case or might have happened previously.)</p> <p>That login token must be available to the Service Provider or Accounting Software.</p> <p>If that login has timed out it might need to be repeated.</p> <p>User must be authorised at Inland Revenue as a Tax Agent for that Customer (or delegated employee of the Customer), and therefore authorised to view data for that Customer and Account.</p> <p>The request is only for a single client of the User.</p> <p>Only Transactions which have been posted to the Customer's Account will be provided to the User at the time of the request.</p>
<b>Post-Conditions</b>	The data requested by the User is presented by the Service Provider or Accounting Software.
<b>Use Case Scenarios</b>	

### BUC103 - Query Tax Data Real Time

1. Normal Flow	<ol style="list-style-type: none"> <li>1. User initiates request for data for a specific Customer, Account and period in their Service Provider or Accounting Software.</li> <li>2. Service Provider or Accounting Software invokes that request to TDS - See systems use case (SUC 030 in TDS Real Time Feed Build Pack) for details.</li> <li>3. Service Provider or Accounting Software receives the response.</li> <li>4. Service Provider or Accounting Software assimilates the data.</li> <li>5. Service Provider or Accounting Software presents the data to the user.</li> <li>6. Use case ends</li> </ol>
2. Exception Flows	<p>Any variations depend on Service Providers and Accounting Software packages.</p> <p>See the systems use case SUC 030 in <a href="#">Real Time Feed Build Pack</a> for exception flows around the use of the TDS Real Time Feed technical service.</p>
3. Alternatives	No alternatives

**Table 15: BUC103 Query Tax Data Real Time**

#### 3.4.9 Use Case BUC104 Query New data urgent subset

### BUC104 - Query New data urgent subset

<b>User/Actors</b>	Customer/Tax Agent
<b>Secondary Actor</b>	Service Provider or Accounting software Inland Revenue Transaction Data Services
<b>Description</b>	<p>The user goal is to be presented with up to date real time data for a specific Customer for a specific Account and Period.</p> <p>This could be for a new Client or to check particular transactions such as receipt of payments, transfers, etc.</p>
<b>Inland Revenue systems</b>	Gateway Services, Identity and Access Service (IAS)
<b>Pre-Conditions</b>	<p>User is licensed and has access to Service Provider or Accounting Software and is authenticated, authorised and logged in to that software</p> <p>User has Inland Revenue online service credential with current authorised access to relevant tax accounts. This might be as an employee of the Customer or as an employee of a Tax Agency.</p> <p>Service Provider or Accounting Software is onboarded and therefore authorised to communicate with TDS (<a href="#">See Onboarding Pack for TDS</a>)</p>



## BUC104 - Query New data urgent subset

<b>Triggers</b>	The user requests transaction detail for a specific Customer by Account and by Period through the Service Provider or Accounting Software
<b>Constraints</b>	<p>The request must be sent using the user's Service Provider or Accounting Software.</p> <p>User must have a valid login token. (This could happen just prior to the start of this use case or might have happened previously.)</p> <p>That login token must be available to the Service Provider or Accounting Software.</p> <p>If that login has timed out it might need to be repeated.</p> <p>User must be authorised at Inland Revenue as a Tax Agent for that Customer (or delegated employee of the Customer), and therefore authorised to view data for that Customer and Account.</p> <p>The request is only for a single client of the User.</p> <p>Only Transactions which have been posted to the Customer's Account will be provided to the User at the time of the request.</p>
<b>Post-Conditions</b>	The data requested by the User is presented by the Service Provider or Accounting Software.
<b>Use Case Scenarios</b>	
1. Normal Flow	<ol style="list-style-type: none"> <li>1. User initiates request for data for a specific customer, Account and period in their Service Provider or Accounting Software.</li> <li>2. Service Provider or Accounting Software invokes that request to TDS - See systems use case (SUC 030 in TDS Real Time Feed Build Pack) for details.</li> <li>3. Service Provider or Accounting Software receives the response.</li> <li>4. Service Provider or Accounting Software assimilates the data.</li> <li>5. Service Provider or Accounting Software presents the data to the user.</li> <li>6. Use case ends</li> </ol>
2. Exception Flows	<p>Any variations depend on Service Providers and Accounting Software packages.</p> <p>See the systems use case SUC 030 in TDS <a href="#">Real Time Feed Build Pack</a> for exception flows around the use of the TDS Real Time Feed technical service.</p>
3. Alternatives	No alternatives

**Table 16: BUC104 Query new data urgent subset**

### 3.4.10 Use Case BUC105 Check whether data is up to date

<b>BUC105 – Check whether data is up to date</b>	
<b>User/Actors</b>	Customer/Tax Agent
<b>Secondary Actor</b>	Service Provider or Accounting software Inland Revenue Transaction Data Services
<b>Description</b>	The user goal is to verify if the data held in the Service Provider or Accounting software is up to date. This could be to check particular transactions such as receipt of payments, transfers, etc.
<b>Inland Revenue systems</b>	Gateway Services, Identity and Access Service (IAS)
<b>Pre-Conditions</b>	User is licensed and has access to Service Provider or Accounting Software and is authenticated, authorised and logged in to that software User has Inland Revenue online service credential with current authorised access to relevant tax accounts. This might be as an employee of the Customer or as an employee of a Tax Agency. Service Provider or Accounting Software is onboarded and therefore authorised to communicate with TDS ( <a href="#">See Onboarding Pack for TDS</a> )
<b>Triggers</b>	The user requests Customer Account or Period Summaries through the Service Provider or Accounting Software
<b>Constraints</b>	The request must be sent using the user's Service Provider or Accounting Software. User must have a valid login token. (This could happen just prior to the start of this use case or might have happened previously.) That login token must be available to the Service Provider or Accounting Software. If that login has timed out it might need to be repeated. User must be authorised at Inland Revenue as a Tax Agent for that Customer (or delegated employee of the Customer), and therefore authorised to view data for that Customer and Account. The request is only for a single client of the User.
<b>Post-Conditions</b>	The User request has been received by GWS. See SUC030 and subsidiary use cases in <a href="#">TDS Real Time Build Pack</a> .
<b>Use Case Scenarios</b>	

**BUC105 – Check whether data is up to date**

1. Normal Flow	<ol style="list-style-type: none"> <li>1. User initiates request for data for a specific Customer Account in their Service Provider or Accounting Software.</li> <li>2. Service Provider or Accounting Software invokes that request to TDS - See systems use case (SUC 032 – Query Customer Account Summary - in TDS Real Time Feed Build Pack) for details.</li> <li>3. Service Provider or Accounting Software receives the response.</li> <li>4. Service Provider or Accounting Software assimilates the data.</li> <li>5. Service Provider or Accounting Software presents the data to the user.</li> <li>6. User checks data and initiates request for data for the same Customer and Account extended to Period Summaries</li> <li>7. Service Provider or Accounting Software invokes that request to TDS - See systems use case (SUC 033 – Query Account Period Summaries - in TDS Real Time Feed Build Pack) for details.</li> <li>8. Service Provider or Accounting Software receives the response.</li> <li>9. Service Provider or Accounting Software assimilates the data.</li> <li>10. Service Provider or Accounting Software presents the data to the user.</li> <li>11. User checks data and initiates request for data for the same Customer and Account specifying a Period for which they want all Transactions</li> <li>12. Service Provider or Accounting Software invokes that request to TDS - See systems use case (SUC 034 – Query Period Transaction List - in TDS Real Time Feed Build Pack) for details.</li> <li>13. Service Provider or Accounting Software receives the response.</li> <li>14. Service Provider or Accounting Software assimilates the data.</li> <li>15. Service Provider or Accounting Software presents the data to the user.</li> <li>16. Use case ends</li> </ol>
2. Exception Flows	Any variations depend on Service Providers and Accounting Software packages.
3. Alternatives	No alternatives

**Table 17 : BUC105 Check whether data is up to date**

## 4 Processes

*Note: The processes in this section are illustrative and represent possible sequences in which the Gateway Services could be used. Variations are possible and expected.*

The Transaction Data Services provides automated lookup abilities to external parties to incorporate into their accounting software and processes. As such the end to end process of the customer is not controlled by, or visible to Inland Revenue. The points those processes can interact with TDS data are many and are individually considered use cases in these build packs.

This section aims to help clarify the overall flow of how those use cases could to be sequenced in order to dovetail into the external party process controlled by the software or people. It also aims to progressively create a context for understanding the usage of the various components through the following steps:

1. The typical overall flow and sequence of events are summarised from an abstract and then from a relatively technical perspective in Section 3.1 above.
2. Section 4.1 "Sample process scenarios and technical components" introduces the sample process scenarios and maps out which processes use which technical components and identifies the services being used.
3. Section 4.2 "Sample process scenarios and related use case walk-throughs" details a walkthrough of each of these sample process variations introduced referencing the steps in the scenario and the use cases applied.
4. The technical service and resource service build packs (as listed under [Related documents](#)) then describe each of those use cases in more detail in terms of what the exact interaction and exception variations could be and what sample payloads look like.

### 4.1 Sample process scenarios and technical components

Some sample end to end process scenarios have been defined to show how the various use cases line up to help facilitate that scenario. The intention of these processes is to show enough variation of how they would typically be used. This will make it easier to identify the relevant use cases and sequences for specific processes an external party might use.

Section 4.2 below works through the process scenarios and relates them to the use cases in Section 3 above.

Below are some sample process scenarios showing which technical components might be utilised to fulfil the scenario:

Sample process scenarios	Functionality	Service Provider Linking	Agent to Client Linking	Delegation in eServices	Full file push	Daily Push	Query accounts	Query transactions	History Feed
	Technical component	Intermediation GWS	Existing Agents List	MyIR	Bulk file Feed	Bulk file Feed	Accounts GWS	Transactions GWS	Ad hoc History Request
	Implications								
<b>I.</b> Tax Agent starts using Service Provider software to look at data of current clients, subscribes for updates, repeatedly has sessions to look at the data over subsequent days	Data for linked clients, will be provided through bulk file feed the next morning, daily updates thereafter	Y			Y	Y	Y	Y	
<b>II.</b> Delegated employee accesses Inland Revenue through Service Provider software and subscribes for updates; repeatedly has sessions over subsequent days	Data for the organisation is provided through bulk file feed the next morning, with daily updates thereafter	Y		Y	Y	Y	Y	Y	Y
<b>III.</b> Delegated employee accesses Inland Revenue transaction feed through Service Provider software and does NOT subscribe for updates, but repeatedly has sessions to look at the data over subsequent days using real-time access only	Suitable for smaller organisations with small datasets and infrequent need to query	Y		Y				Y	
<b>IV.</b> New Client is adopted by Tax Agency	As part of on-going daily file feeds the next morning would have the full data for the newly added client		Y		Y	Y			Y

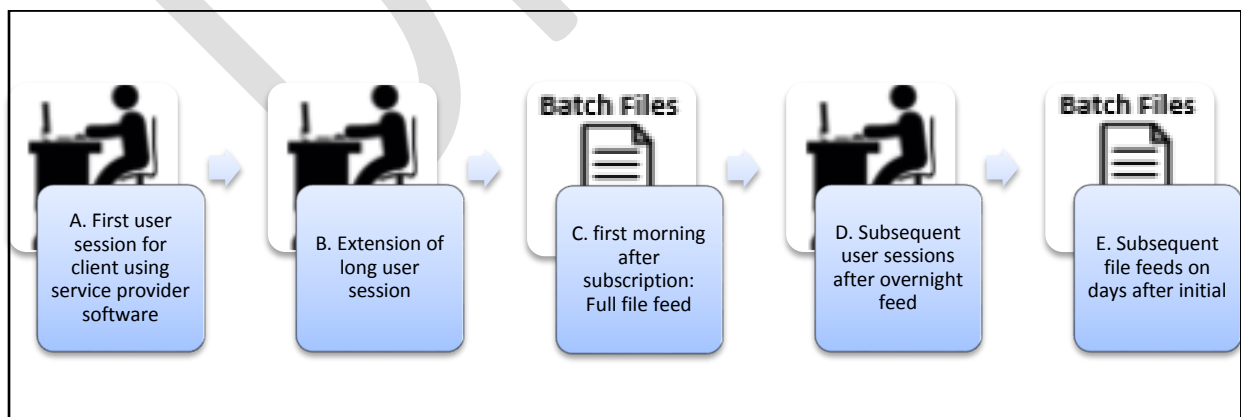
**Table 18 : Sample process scenarios and technical components**

## 4.2 Sample process scenarios and related use case walk-throughs

### 4.2.1 Sample Scenario I – Tax Agent to Service Provider Linking and Subscription

<b>Description</b>  <b>Scenario I</b>	<p><b>Tax Agent starts using Service Provider software to look at data of current Clients; subscribes for updates and repeatedly has sessions to look at the data over subsequent days.</b></p> <p>This extended use case covers the five stages (see figure below) of the general process following on from the initial trigger:</p> <ul style="list-style-type: none"> <li>A. FIRST USER SESSION (ON RELATED CLIENT, IN SPECIFIC SERVICE PROVIDER SOFTWARE PRODUCT)</li> <li>B. EXTENDED USER SESSION HOURS LATER</li> <li>C. NEXT MORNING, FIRST ONE AFTER SUBSCRIBING</li> <li>D. SUBSEQUENT USER SESSIONS AFTER FIRST OVERNIGHT RUN</li> <li>E. SUBSEQUENT DAYS</li> </ul>
<b>Actors</b>	Tax Agent
<b>Systems</b>	<ul style="list-style-type: none"> <li>▪ Software Provider software</li> <li>▪ Inland Revenue – Gateway Services, TDS bulk file feed</li> </ul>
<b>Pre-conditions</b>	<p>Tax Agency is registered with Inland Revenue as Tax Agent, and linked to Clients for Tax Types for whom data will be being requested.</p> <p>Tax Agent has a valid Inland Revenue online services credential with current authorised access to relevant tax accounts</p>
<b>Triggers</b>	Login of Tax Agent into Service Provider software that is integrated with Inland Revenue Transaction Data Services
<b>Post-conditions</b>	Service Provider software has received accurate, complete data for the Client(s) requested and subscribed for future transaction data updates in that software

**Table 19: Sample Process Scenario I**



**Figure 8: Process steps – Sample Scenario I - Tax Agent to Service Provider Linking and Subscription**

The steps identified above are shown below associated with the relevant use case described in Section 3. The use cases are identified in the scenario flow detailed in Section 4.2.1.1 below:

	Functionality	Authorisation and authentication	Service Provider Linking	Delegation in eServices	Daily Push	Query accounts	Query transactions	Full File Push
	Technical component	Identity and Access	Intermediation GWS	MyIR	Bulk file Feed	Accounts GWS	Transactions GWS	History File
<b>A. First User Session using software</b>								
Simple user login to software								
PUC201 Authentication and consent		Y		Y				
BUC101 Subscribe to tax data updates			Y					
BUC103 Query Tax Data real-time				Y		Y	Y	
SUC030 TDS real-time queries				Y		Y	Y	
<b>B. Extension of user session</b>								
PUC201 Authentication and consent		Y						
BUC103 Query Tax Data real-time				Y		Y	Y	
SUC030 TDS real-time queries				Y		Y	Y	
<b>C. Next Day session – Full File Feed</b>								
SUC001 Provide transaction updates					Y			
PUC203 Process Updates					Y			
SUC002 Provide transaction history				Y				Y
PUC204 Consolidate Transaction History								Y
<b>D. Subsequent sessions - Same as B</b>								
<b>E. Subsequent file feeds - Same as C</b>								

**Table 20 : Use Cases across Sample Scenario I - Tax Agent to Service Provider Linking and Subscription**

#### 4.2.1.1 Base Flow for Sample Scenario I – Tax Agent to Service Provider Linking and Subscription

Step	Actor	System	Description	Output
<b>A. FIRST USER SESSION USING SOFTWARE</b>				
1	Tax Agent	Service Provider Software	<b>Tax Agent logs in</b> to a service provider product that is integrated to Inland Revenue TDS.	Service provider session
2	Tax Agent	Service Provider Software	<b>Software gets tax agent to consent</b> to access tax agency customer data.	Consent
3 <b>Use Case PUC201</b>	Tax Agent	Inland Revenue Authentication service	<b>The Service Provider software redirects/launches the user browser to Inland Revenue Authentication (XIAMS) sequence</b> where the user logs in (and accepts a consent page) and is redirected back to the Service Provider software with an access token that is to be used for Inland Revenue web service calls.	Inland Revenue session token
4 <b>Use Case BUC101</b>	Tax Agent	Service Provider Software	<b>Software gets Tax Agent to consent</b> to subscribe for daily updates on Tax Agency customer data – unless already subscribed. <i>If consent is not given then steps to link and processing of daily update files will be skipped.</i>	Confirmation
5 <b>Use Case BUC101</b>	Service Provider Software	Inland Revenue Intermediation service	<b>Service Provider software calls Inland Revenue Intermediation service</b> using user access token, <b>to link Service Provider and Tax Agency list(s) which creates</b> subscription to daily updates. <i>This data will not be available until the next day.</i>	Confirmation
6 <b>Use Case BUC103</b>	Tax Agent	Service Provider Software	<b>Tax Agency staff member selects a client to look at in more detail in this session and decides to request more detail from Inland Revenue.</b>	Selected client IRD number
7 <b>Use Case BUC103</b>	Service Provider Software	Inland Revenue Account service	Service Provider Software queries Account service for the visible list of accounts for the Client.	List of client accounts
8 <b>Use Case BUC103</b>	Tax Agent	Service Provider Software	Agency staff member selects the <b>account and period to look at in more detail.</b> Service Provider software queries the account and transaction services to drill down to the level of detail required.	Account, Period and Transaction data as selected



Step	Actor	System	Description	Output
9 <b>Use Case SUC030</b>	Service Provider Software	Inland Revenue Gateway Services (GWS)	Inland Revenue queries the account, period, and transaction services to drill down to the level of detail required.	Period and Transaction data as selected are returned
10	Tax Agent	Service Provider Software	Tax Agent does <b>other work with Client and in software</b> related to advising client on position and steps to take.	
<b>B. EXTENSION OF USER SESSION</b>				
11 <b>Use Case PUC201</b>	Service Provider Software	Inland Revenue Gateway Services (GWS)	If the Tax Agent login in the Service Provider software lasts for 8 hrs the token will expire. At that point in time the session might need to be extended by getting a new token – see <a href="#">Identity and Access Build Pack</a> .	Token expiry notification or elapsed time
12 <b>Use Case PUC201</b>	Service provider software	Inland Revenue Authentication service	<b>The Service Provider software does a web service call to the Inland Revenue Authentication gateway service</b> where it passes in a code received after the initial user login to Inland Revenue (XIAMS) in order to get a new session token see <a href="#">Identity and Access Build Pack</a> .	New Inland Revenue session token
13 <b>Use Case BUC103</b>	Tax Agent	Service Provider Software	Tax Agency staff member selects a client to look at in <b>more detail</b> in this session and decides to request more detail from IR.	Selected client IRD number
14 <b>Use Case BUC103</b>	Service Provider Software	Inland Revenue Account service	Service Provider Software queries Account service for the visible list of accounts for the Client.	List of client accounts
15 <b>Use Case BUC103</b>	Tax Agent	Service Provider Software	Tax Agency staff member selects the <b>account and period to look at in more detail</b> . Service Provider software queries the account and transaction services to drill down to the level of detail required.	Account, Period and Transaction data as selected
16 <b>Use Case SUC030</b>	Service Provider Software	Inland Revenue Gateway Services (GWS)	Inland Revenue queries the account, period, and transaction services to drill down to the level of detail required.	Period and Transaction data as selected are returned

Step	Actor	System	Description	Output
<b>C. NEXT DAY SESSION – FULL FILE FEED</b>				
17 <b>Use Case SUC001</b>	Inland Revenue	Service Provider central software and file location	For the next morning, (the first one after the software was subscribed to by the Tax Agency for daily updates), <b>Inland Revenue batch processing will generate export files for each subscribing Tax Agency, including this one. Any Clients that were newly added to the subscription will be added to this export file.</b> All subscribed accounts, period and transaction detail and history kept in START will be included in this file. The file is sent to the Service Provider central location.	Service provider central location has full export of client data related to recently subscribed client accounts.
18 <b>Use Case PUC203</b>	Service Provider central software and file location	Service Provider software	Based on triggers that see the daily file upload from Inland Revenue is completed, <b>Service Provider centrally running software will process and import the file content</b> to make it available for the Tax Agency users through their software.	Data ready for viewing by Tax Agent
19	Tax Agent	Service Provider session	Tax Agent decides they need more data related to data conversion and historic transactions and wants to review and reconcile <b>History data.</b>	Account and Transaction data as selected and sent as ad hoc request to Inland Revenue
20 <b>Use Case SUC002</b>	Inland Revenue	Service Provider central software and file location	After data conversion, TDS Bulk History has provided the converted data in Tax Agent Web Service format to Service Providers. See Appendix D for Tax Agent Web Services Codes	Service Provider has client history related to specific Account(s)/ Period(s).
21 <b>Use Case PUC204</b>	Service Provider central software and file location	Service Provider software	<b>Service Provider centrally running software will process and import the file content</b> in a way that makes it available for the Tax Agency users through their software.	Data available for Tax Agent to view
22			Tax Agent does other work and repeats steps above if necessary.	

Step	Actor	System	Description	Output
<b>D. SUBSEQUENT SESSION</b>				
23	Tax Agent	Service Provider software	Tax Agent logs into the Service Provider software again and <b>accesses the centrally processed data from the previous step to show the user a navigable view of all the client data</b> with no need to query Inland Revenue for it or log in to Inland Revenue to get a token.	User view of all the client data for all subscribed accounts and periods and transactions
24 <b>Use Case BUC103</b>	Tax Agent	Service Provider software Inland Revenue Gateway Services	Should the user have an event such as a payment run that makes them <b>believe the data has changed since the overnight run they can select the specific account and period and request a real time refresh from IR</b> , steps similar to those listed above including logging in to IR.	This is covered in <a href="#">TDS Real Time Feed Build Pack</a>
<b>E. SUBSEQUENT FILE FEEDS</b>				
25 <b>Use Case SUC001</b>	Inland Revenue	Service Provider central software and file location	Subsequent mornings, when the software was not subscribed to for any additional Tax Agency clients for daily updates; <b>Inland Revenue batch processing in START will generate export files for each subscribing Tax Agency, including this one. Period summaries and new transactions will be included in the weekly file. New Transactions only will be included in the daily file.</b> This file is sent to the Service Provider central location in the same way as the initial export file.	Service Provider central location has full export of client data related to recently subscribed client accounts.

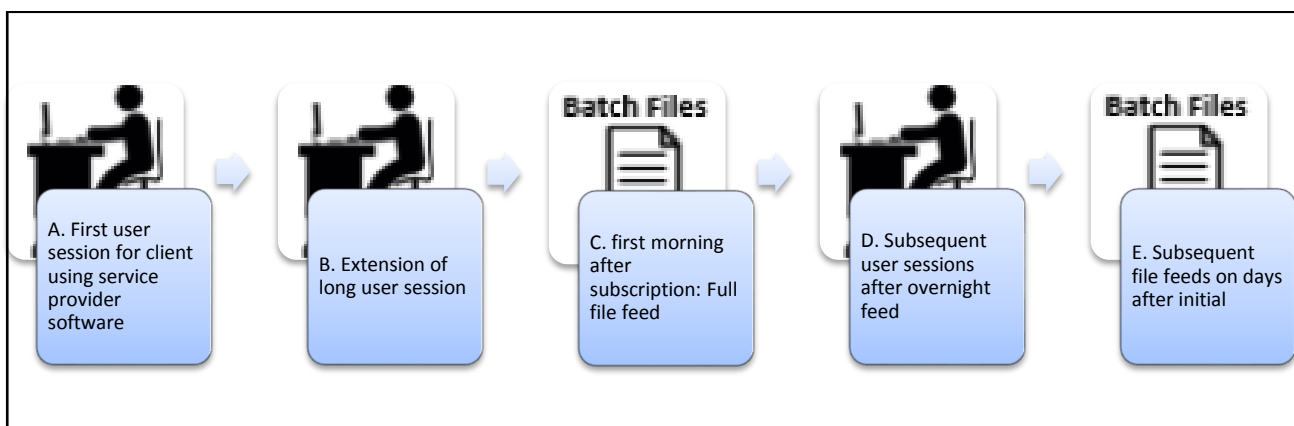
Step	Actor	System	Description	Output
26 <b>Use Case PUC203</b>	Service Provider central software and file location	Service Provider software	<p>Based on triggers that see the daily file upload from Inland Revenue is completed, <b>Service Provider centrally running software will process and import the file content</b> in a way that makes it available for the Tax Agency users and the software they use.</p> <p>The transactions provided for modified periods, and tax period summaries received for unmodified periods will be sufficient to pick up if a gap in transmission has arisen between what Inland Revenue has versus what the Service Provider has cached. Such periods could be marked for remediation when the user next logs in.</p>	Further uploads if necessary
27	Tax Agent	Service Provider software	<p>Tax Agent logs into the Service Provider software again and <b>accesses the centrally processed data from the previous step</b> with no need to query Inland Revenue for it or logging in to Inland Revenue to get a token.</p> <p>Changes in the data due to the overnight run are made available and cached locally if needed.</p> <p>Part of the data transferred may be whether there is a period marked as out of synch.</p>	User view of all the client data for all subscribed accounts and periods and transactions
28 <b>Use Case BUC105</b>	Tax Agent	Service Provider software Inland Revenue Gateway Services	<p>If there is a period marked as out of synch the Service Provider software <b>may automatically or when triggered by user interest, call Inland Revenue TDS to get a full update on that period</b> and cache that data locally, including centrally and remove or highlight the out of synch flag.</p>	Update of period data for out of synch periods

**Table 21: Sample Scenario I in detail – Tax Agent to Service Provider Linking and Subscription**

#### 4.2.2 Sample Scenario II - Customer to Service Provider Linking and Subscription

<b>Description</b>  <b>Scenario II</b>	Organisation staff member accesses Inland Revenue transaction feed through Service Provider software and subscribes for updates, then repeatedly has sessions to look at the data over subsequent days This sample process variation covers 5 typical stages following on from this initial trigger: <ul style="list-style-type: none"> <li>A. FIRST USER SESSION IN SPECIFIC SERVICE PROVIDER SOFTWARE PRODUCT</li> <li>B. EXTENDED USER SESSION HOURS LATER</li> <li>C. NEXT MORNING, FIRST ONE AFTER SUBSCRIBING</li> <li>D. SUBSEQUENT USER SESSIONS AFTER FIRST OVERNIGHT RUN</li> <li>E. SUBSEQUENT DAYS FILE FEEDS</li> </ul>
<b>Actors</b>	<ul style="list-style-type: none"> <li>▪ Delegated employee of a large organisation</li> </ul>
<b>Systems</b>	<ul style="list-style-type: none"> <li>▪ Software Provider software</li> <li>▪ Inland Revenue – Gateway Services, TDS bulk file feed, START</li> </ul>
<b>Pre-conditions</b>	Delegated employee has a valid MyIR login Delegated employee login has a valid Inland Revenue online services credential with current authorised access to relevant tax accounts Delegated employee has a Service Provider software login, internet access
<b>Triggers</b>	Login of delegated employee into Service Provider software that is integrated with Inland Revenue Transaction Data Services
<b>Post-conditions</b>	Service Provider software has received and displayed accurate and complete data for the organisation requested and subscribed for future updates in that software

**Table 22: Sample Process scenario II - - Customer to Service Provider Linking and Subscription**



**Figure 9: Process Steps - Sample process scenario II - Customer to Service Provider Linking and Subscription**

#### 4.2.2.1 Base Flow for sample Scenario II - Customer to Service Provider Linking and Subscription

Step	Actor	System	Description	Output
<b>A. FIRST USER SESSION USING SOFTWARE</b>				
1	Delegated employee	Service Provider Software	<b>Delegated employee logs in</b> to a Service Provider product that is integrated to Inland Revenue TDS.	Service Provider session
2 <b>Use Case PUC201</b>	Delegated employee	Inland Revenue Authentication service	<b>The Service Provider software redirects/launches the user browser to Inland Revenue Authentication(XIAMS) sequence</b> where the user logs in (and accepts a consent page) and is redirected back to the Service Provider software with a limited period access token that is to be used for Inland Revenue web service calls.	Inland Revenue session token
3 <b>Use Case BUC101</b>	Delegated employee	Service Provider Software	<b>Software gets delegated employee to</b> subscribe for daily updates on customer data – unless already subscribed. <i>If subscription is not requested then steps to link and processing of daily update files will be skipped.</i>	Confirmation
4 <b>Use Case BUC101</b>	Service Provider Software	Inland Revenue Intermediation service	<b>Service Provider software calls Inland Revenue Intermediation service using user access token, to link service provider to organisational or account IDs</b> to subscribe for daily updates, using user token. <i>This data will not be available until the next day.</i>	Confirmation
5 <b>Use Case BUC103</b>	Delegated employee	Service Provider Software	Delegated employee selects a period to look at in more detail and decides to <b>request further detail from Inland Revenue.</b>	Selected client IRD number
6 <b>Use Case BUC103</b>	Service Provider Software	Inland Revenue Account service	Service Provider software queries Account service for the visible list of accounts for the customer.	List of client accounts

Step	Actor	System	Description	Output
7 <b>Use Case BUC103</b>	Delegated employee	Service Provider Software	Delegated employee selects the <b>account and period to look at in more detail</b> . Service Provider software queries the account and transaction services to drill down to the level of detail required.	Account, Period and Transaction data as selected
8 <b>Use Case SUC030</b>	Service Provider Software	Inland Revenue Gateway Services	Inland Revenue queries the account, period, and transaction services to drill down to the level of detail required.	Period and Transaction data as selected are
9	Delegated employee	Service Provider Software	Delegated employee does <b>other work in software</b> related to organisation, including tax position and steps to take.	
<b>B EXTENSION OF USER SESSION</b>				
10 <b>Use Case PUC201</b>	Service Provider Software	Inland Revenue Gateway Services	If the staff member login in the service provider software lasts for 8 hrs the token will expire. At that point in time the session might need to be extended by getting a new token – see <a href="#">Identity and Access Build Pack</a> .	Token expiry notification or elapsed time
11 <b>Use Case PUC201</b>	Service Provider software	Inland Revenue Authentication service	<b>The Service Provider software does a web service call to the Inland Revenue Authentication gateway service</b> where it passes in the code received after the initial user login to Inland Revenue (XIAMS) in order to get a new session token.	New Inland Revenue session token
12 <b>Use Case BUC103</b>	Delegated employee	Service Provider session	Delegated employee selects a client/Account to look at in <b>more detail</b> in this session and decides to request more detail from Inland Revenue.	Selected client IRD number
13 <b>Use Case BUC103</b>	Delegated employee	Service Provider Software	Delegated employee selects the <b>account and period to look at in more detail</b> . Service Provider software queries the account and transaction services to drill down to the level of detail required.	Account, Period and Transaction data as selected
14 <b>Use Case SUC030</b>	Service Provider Software	Inland Revenue Gateway Services (GWS)	Inland Revenue queries the account, period, and transaction services to drill down to the level of detail required.	Period and Transaction data as selected are returned
15	Delegated employee	Service provider session	Delegated employee does <b>other work</b> and repeats steps above if necessary for day, eventually logging off.	



Step	Actor	System	Description	Output
<b>C. NEXT DAY SESSION – FULL FILE FEED</b>				
16 <b>Use Case SUC001</b>	Inland Revenue	Service provider central software and file location	The next morning <b>Inland Revenue batch processing in START will generate export files for each subscribing organisation, including this one. Any organisations that were newly added to the subscription will be added in full to this export file.</b> All subscribed accounts, all period and transaction detail and history kept in START will be included in this file. This file is sent to the Service Provider central location.	Service provider central location has full export of relevant subset of organisation tax data.
17 <b>Use Case PUC203</b>	Service Provider central cloud software and file location	Service Provider software	Based on triggers that see the daily file upload from Inland Revenue is completed, <b>Service Provider centrally running software will process and import the file content</b> in a way that makes it available for the organisation employees and accountants that have delegated access and are Service Provider software users.	Data ready for viewing by Accountant or organisation employee
18	Delegated employee	Service Provider session	Delegated employee decides they need more data related to data conversion and historic transactions and wants to review and reconcile <b>History data.</b>	Account, Period and Transaction data as selected
19 <b>Use Case SUC002</b>	Inland Revenue	Service Provider central software and file location	After data conversion, TDS Bulk History has provided the converted data in Tax Agent Web Service format to Service Providers. See <a href="#">Bulk History Feed Build Pack</a> .	Service provider central location has full export of client history data related to recently subscribed client accounts.
20	Delegated employee	Service Provider software	Delegated employee logs into the Service Provider software again and accesses <b>the centrally processed data from the previous step to show the user a navigable view of all the client data</b> with no need to query Inland Revenue for it or log in to Inland Revenue to get a token.	User view of organisation data for all subscribed accounts, periods and transactions



Step	Actor	System	Description	Output
<b>D. SUBSEQUENT SESSION</b>				
21 <b>Use Case BUC103</b>	Delegated employee	Service Provider software Inland Revenue gateway services	Should the user have an event such as a payment run that makes them <b>believe the data has changed since the overnight run they can select the specific account and period and request a real time refresh from IR</b> , steps similar to those listed above including logging in to IR.	This is covered in <a href="#">TDS Real Time Feed Build Pack</a>
<b>E. SUBSEQUENT FILE FEED SESSIONS</b>				
22 <b>Use Case SUC001</b>	Inland Revenue	Service Provider central software and file location	Subsequent mornings, when the software was not subscribed to for any additional subsets of data for that organisation for daily updates; <b>Inland Revenue batch processing in START will generate export files for each subscribing organisation, including this one.</b> <b>Only period summaries and new transactions will be included</b> - for all subscribed accounts, all period summaries and for modified periods transaction detail and history kept in START. This file is sent to the Service Provider central cloud location in the same way as the initial export file.	Service Provider central location has full export of organisational tax data related to any subscribed organisational accounts.
23 <b>Use Case PUC203</b>	Service Provider central cloud software and file location	Service Provider software	Based on triggers that see the daily file upload from Inland Revenue is completed <b>Service Provider centrally running software will process and import the file content</b> in a way that makes it available for the organisational employees and the software they use. The transactions provided for modified periods, and tax period summaries received for unmodified periods will be sufficient to pick up if a gap in transmission has arisen between what Inland Revenue has versus what the Service Provider has cached. Such periods can be marked for remediation when the user next logs in.	Further uploads if necessary

Step	Actor	System	Description	Output
24	Delegated employee	Service Provider software	Delegated employee logs into the Service Provider software again and <b>accesses the centrally processed data from the previous step to show the user a navigable view of all the client data</b> with no need to query Inland Revenue for it or logging in to Inland Revenue to get a token. Changes in the data due to the overnight run are made available if needed. Part of the data transferred is whether there is a period marked as out of synch.	User view of all the client data for all subscribed accounts and periods and transactions
25 <b>Use Case BUC103</b>	Delegated employee	Service Provider software Inland Revenue Gateway Services	If there is a period marked as out of synch, the Service Provider software will <b>immediately after login or when triggered by user interest, call the Inland Revenue TDS to get a full update on that period</b> and remove the out of synch flag.	Update of period data for out of synch periods

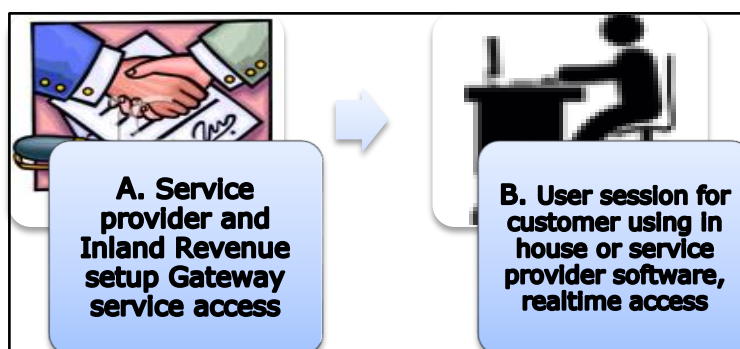
**Table 23 : Sample Scenario II - Customer to Service Provider Linking and Subscription**

#### 4.2.1 Sample Scenario III – Customer using frequent Real Time Sessions

*Note: Suitable for smaller organisations with small datasets and an infrequent need to query.*

<b>Description</b> <b>Scenario III</b>	<p><b>Delegated employee</b> accesses Inland Revenue transaction feed through Service Provider software and does NOT subscribe for updates, but repeatedly has sessions to look at the data over subsequent days using real-time access only</p> <p>This scenario covers the 2 stages (see figure below) of the general process following on from the initial trigger:</p> <ul style="list-style-type: none"> <li>A. FIRST USER SESSION (ON RELATED CLIENT, IN SPECIFIC SERVICE PROVIDER SOFTWARE PRODUCT)</li> <li>B. ACCESS TDS REAL TIME SERVICE</li> </ul>
<b>Actors</b>	<ul style="list-style-type: none"> <li>▪ Delegated employee employed by a large organisation</li> </ul>
<b>Systems</b>	<ul style="list-style-type: none"> <li>▪ Software Provider software</li> <li>▪ Inland Revenue – Gateway Services, START</li> </ul>
<b>Pre-conditions</b>	<p>Delegated employee has a valid MyIR login</p> <p>Delegated employee login has a valid Inland Revenue online services credential with current authorised access to relevant tax accounts</p> <p>Delegated employee has a Service Provider software login, internet access</p>
<b>Triggers</b>	Login of Delegated employee into Service Provider software that is integrated with Inland Revenue Transaction Data Services
<b>Post-conditions</b>	Service Provider software has received and displayed accurate and complete data for the organisation requested

**Table 24 : Sample Process scenario III - Customer using frequent Real Time Sessions**



**Figure 10: Process Steps - Sample Process scenario III - Customer using frequent Real Time Sessions**

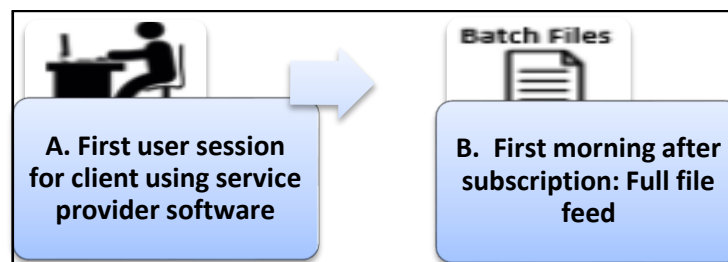
Step	Actor	System	Description	Output
<b>A. FIRST USER SESSION USING SOFTWARE</b>				
1	Delegated employee	Service Provider Software	<b>Delegated employee logs in</b> to a Service Provider product that is integrated to Inland Revenue TDS.	Service Provider session
2 <b>Use Case PUC201</b>	Delegated employee	Inland Revenue Authentication service	<b>The Service Provider software redirects/launches the user browser to Inland Revenue Authentication(XIAMS) sequence</b> where the user logs in (and accepts a consent page) and is redirected back to the Service Provider software with a limited period access token that is to be used for Inland Revenue web service calls.	Inland Revenue session token
<b>B. ACCESS TRANSACTION DATA SERVICES REAL TIME SERVICE</b>				
3 <b>Use Case BUC103</b> (or BUC104 BUC105)	Delegated employee	Service Provider Software	Delegated employee selects a period to look at in more detail and decides to <b>request further detail from Inland Revenue.</b>  Note: The delegated employee can select an Account for which to request a Summary, a period for which to request a summary or a period for which they request transactions.	Selected client IRD number
4 <b>Use Case BUC103</b>	Delegated employee	Service Provider Software	<b>Delegated employee</b> selects the <b>account and period to look at in more detail.</b>  Service Provider software queries the Account, Period or transaction services to drill down to the level of detail required.	Account, Period and Transaction data as selected
5 <b>Use Case SUC030</b>	Service Provider Software	Inland Revenue Gateway Services (GWS)	Inland Revenue queries the account, period, or transaction services to drill down to the level of detail required and responds to the user request.	Period and Transaction data as selected is returned to the Service Provider software

**Table 25 : Sample Process Scenario III - Customer using frequent Real Time Sessions**

#### 4.2.1.2 Sample Scenario IV - New Client is adopted by Tax Agency

<b>Description</b>	New Client for Tax Agency (As part of on-going daily file feeds the next morning would have the full data for the newly added client) This scenario covers the 2 stages (see figure below) of the general process following on from the initial trigger: A. FIRST USER SESSION (ON RELATED CLIENT, IN SPECIFIC SERVICE PROVIDER SOFTWARE PRODUCT) B. NEXT MORNING, FIRST ONE AFTER SUBSCRIBING
<b>Scenario IV</b>	
<b>Actors</b>	<ul style="list-style-type: none"> <li>Tax Agent</li> </ul>
<b>Systems</b>	<ul style="list-style-type: none"> <li>Software Provider software</li> <li>Inland Revenue – Gateway Services, TDS bulk file feed, START</li> </ul>
<b>Pre-conditions</b>	<p>Tax Agency is registered with Inland Revenue as Agent, and not yet linked to the Client in this scenario for Tax Types for whom data will be being requested.</p> <p>Tax Agent has a valid Inland Revenue online services credential with current authorised access to relevant tax accounts</p> <p>Tax Agency is already linked to Service Provider software</p> <p>Tax Agent has a Service Provider software login and internet access</p>
<b>Triggers</b>	Login of Tax Agent into Service Provider software that is integrated with Inland Revenue Transaction Data Services
<b>Post-conditions</b>	Service Provider software has received accurate, complete data for the Client(s) requested and subscribed for future transaction data updates in that software

**Table 26 : Sample Process scenario IV - New Client for Agency**



**Figure 11: Process steps – Sample process scenario IV - New Client for Agency**

## 4.2.1.3 Base Flow for sample Scenario IV - New Client is adopted by Agency

Step	Actor	System	Description	Output
<b>A. FIRST USER SESSION USING SOFTWARE</b>				
1	Tax Agent	MyIR	<p>Tax Agent uses Inland Revenue MyIR and <b>adds Customer to their Agents List.</b></p> <p><i>This process continues as it is now and is not impacted by TDS.</i></p> <p>This Tax Agent has already subscribed to receiving the Bulk File Feed</p>	Confirmation
<b>B. NEXT MORNING, FIRST ONE AFTER SUBSCRIBING</b>				
2 <b>Use Case SUC001</b>	Inland Revenue	Service Provider central software and file location	<p>For the next morning, (<b>Inland Revenue batch processing in START will generate export files for each subscribing Tax Agency, including this one.</b></p> <p><b>Any clients that were newly added to the subscription will be added in full to this export file.</b></p> <p>All subscribed accounts, all period and transaction detail and all history kept in START will be included in this file. The file is sent to the Service Provider central location.</p>	Service provider central location has full export of client data related to recently subscribed client accounts.
3 <b>Use Case PUC203</b>	Service Provider central software and file location	Service Provider software	<p>Based on triggers that see the daily file upload from Inland Revenue is completed, <b>Service Provider centrally running software will process and import the file content</b> in a way that makes it available for the Tax Agency users through their software.</p>	Data ready for viewing by Tax Agent

Table 27 : Sample Process Scenario IV

## 5 Onboarding

To onboard a Service Provider to consume the Bulk File Feed service, the following information is required.

### 5.1 Service provider information required

- Destination SFTP server details including:
  - SFTP server domain name (if available)
  - SFTP server IP Addresses (these addresses will be whitelisted by IR)
  - Destination directory details
- SFTP server account for use with Inland Revenue SSH key to connecting to the SFTP server.
- PGP public certificate to enable payload encryption for files sent by Inland Revenue and to sign initial bulk linking request.
- An initial list of Tax Agent - or Customer - users to bulk link to the Service Provider before the first bulk files get generated. This must be signed to prove its origin.

### 5.2 Inland Revenue information

- All Inland Revenue's SFTP connections will originate from the following IP addresses:
  - Test Systems 222.153.203.33
  - Production 222.153.202.39
  - Production(DR) 222.153.202.33
- Inland Revenue will provide an SSH key to be trusted for login on the SFTP site, it needs to be trusted and associated with an account on the Service Provider SFTP site.
- Inland Revenue will provide a PGP key to encrypt the initial bulk loading request list file with Test data information

See examples above and related build packs

### 5.3 Initial bulk linking request

As defined under the use cases there will be an initial large set of bulk files and history bulk files generated at time of transition into TDS. As a prerequisite to generating these files relationships need to be established between the Service Provider and current users – Tax Agents or direct Inland Revenue Customers otherwise the bulk files would be empty. This is done via bulk linking.

#### Sample bulk linking request file

```
A|1500011035|AGENT|123041507|
A|1500011035|CUSTOMER|123041507|1|
A|1500011035|CUSTOMER|123068602|0|
A|1500011035|AGENT|123068602|
```

**Table 28 : Sample Bulk Linking Request file**

Field Name	Data Type	Size	Mandatory	Format	List of Values	Description
<b>Record Type</b>	CHAR	1	Yes		A	Identifies record type.
<b>Software Intermediary ID</b>	CHAR	10	Yes	Keep leading zeros		Service Provider ID in Inland Revenue system. Identifier provided once Intermediary is registered
<b>Intermediation Type</b>	CHAR	8	Yes		AGENT, CUSTOMER	
<b>Client or Customer ID</b>	CHAR	10	Yes	Keep leading zeros		Software Intermediary Customer ID or Agent Client ID
<b>Account Type</b>	CHAR	1	Yes			It will be possible to stipulate an Account type or All accounts

**Table 29 : Data for Bulk Linking Request**

This file must be

- Structured as per above
- PGP signed using the Service Provider PGP key exchanged, and PGP encrypted using the Inland Revenue key provided for the purpose
- Put on the SFTP site under the default folder for the TDS user associated with the SSH key as **BulkLinkingRequest.txt**
- Bulk linking will also be required in some test environments for Inland Revenue to provide access.



## 6 Appendix A - Glossary

Acronym/Term	Definition
<b>Authentication</b>	The process of verifying an identity claimed by or for a system entity. [RFC 2828]
<b>Authorisation</b>	A right or a permission that is granted to a system entity to access a system resource. [RFC 2828]
<b>Build Pack</b>	Details the technical requirements and specifications, processes and sample payloads for the specified activity
<b>Business Processing</b>	Processing by Inland Revenue systems in retrieving data and constructing the Payload (business information content) of a message.
<b>Business Service</b>	An integration interface (description) of the Solution which provides a set of business data and information in fulfilling the Service and is specified in this document. The Solution may offer more than one Business Service.
<b>Customer</b>	<p>A Customer is the party who is a taxpayer or a participant in the social policy products that are operated by Inland Revenue. The Customer might be a person (an "individual") or a non-individual entity such as a company, trust, society etc.</p> <p>Practically all of the service interactions with Inland Revenue are about a Customer (e.g. their returns, accounts, entitlements etc.) even though these interactions might be undertaken by an Intermediary such as a Tax Agent on their behalf.</p>
<b>Data integrity</b>	The property that data has not been changed, destroyed, or lost in an unauthorized or accidental manner. [RFC 2828]
<b>Digital certificate</b>	A certificate document in the form of a digital data object (a data object used by a computer) to which is appended a computed digital signature value that depends on the data object. [RFC 2828]
<b>Encryption</b>	Cryptographic transformation of data (called "plaintext") into a form (called "cipher text") that conceals the data's original meaning to prevent it from being known or used. If the transformation is reversible, the corresponding reversal process is called "decryption", which is a transformation that restores encrypted data to its original state. [RFC 2828]
<b>MyIR</b>	START's authenticated customer-facing portal - myIR.
<b>FIRST</b>	Inland Revenue's old system which will still be in operation until 2021.
<b>Gateway</b>	START's web services gateway.
<b>GWS</b>	Gateway Services—the brand name for the suite of web services that Inland Revenue is providing.
<b>HTTP</b>	Hypertext Transfer Protocol is a networking protocol and is the foundation of data communication for the World Wide Web.

Acronym/Term	Definition
<b>HTTPS</b>	Hyper Text Transmission Protocol (Secure)—the protocol by which web browsers and servers interact with each other. When implemented over TLS1.2 HTTP becomes HTTPS.
<b>IAS Build Pack</b>	Identity and Access Build Pack
<b>Intermediary</b>	A party who interacts with Inland Revenue on behalf of a Customer. Inland Revenue's Customer is a Client of the Intermediary. There are several types of Intermediary including Tax Agents, PTSIs, PAYE Intermediaries etc.
<b>Intermediation Service</b>	The Intermediation Service is a new Gateway Service for creating and maintaining delegated access relationships between intermediaries and their clients. These relationships enable access by the intermediary to a resource (e.g. an account, correspondence etc.) that belongs to their client. There are several types of intermediaries such as Tax Agents, book keepers, PAYE Intermediaries.
<b>IP</b>	Internet Protocol—the principal communication protocol in the Internet protocol suite for relaying datagrams across networks.
<b>IR</b>	Inland Revenue
<b>Mutual authentication</b>	Mutual authentication refers to two parties authenticating each other at the same time, being a default mode of authentication in some protocols (e.g. SSH) and optional in other (TLS)
<b>NSP</b>	Inland Revenue's New Services Platform—includes START, XIAMS, the Application Publishing Service and supporting infrastructure.
<b>OAuth2</b>	An HTTPS based protocol for authorising access to a resource, currently at version 2.
<b>Payload</b>	The business information content of the message and/or file(s) between Inland Revenue and a Business Partner. This refers to the data contained within the messages that are exchanged when a web service is invoked. Messages consist of a Acronym/term Definition header and a payload.
<b>Schemas</b>	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.
<b>Service</b>	The exchange, as enabled by the Solution, of information, data and/or funds for the purpose of Clients' tax administration by Tax Agents.
<b>Service Provider Software</b>	A Client Application is an operating instance of Software that is deployed in one or more sites. A number of deployment patterns are possible: <ol style="list-style-type: none"> <li>1. A single cloud based instance with multiple tenants and online users,</li> <li>2. An on premise instance (e.g. an organisation's payroll system)</li> <li>3. A desktop application with an online user.</li> </ol>

Acronym/Term	Definition
	This is the computer software that contains interfaces to (consumes) the services that Inland Revenue exposes. Software is developed and maintained by a Software Developer and subsequently deployed as one or more Client applications.
<b>SFTP</b>	Secure File Transport Protocol. SFTP 3.0 is used.
<b>SOAP</b>	Simple Object Access Protocol (SOAP) is a protocol specification for exchanging structured information in the implementation of Web Services in computer networks.
<b>Solution</b>	The technology components, systems and interface specifications constituting the Tax Agent Web Services capability which enables integration and communication across the Gateway channel between Inland Revenue and Tax Agents for the purpose of providing the Service.
<b>Software Developer</b>	The developer of a software package and its Gateway Channel integration capability which forms part of the Solution.
<b>SSH</b>	<b>Secure Shell</b> (SSH) is a cryptographic network protocol for operating network services securely over an unsecured network. Version 2.0 is used.
<b>SSL</b>	Secure Sockets Layer (SSL) is a cryptographic protocol that provides security for communications over networks such as the Internet.
<b>START</b>	Inland Revenue's new system which stands for Simplified Taxation and Revenue Technology
<b>Tax Agent</b>	A Tax Agent who is formally registered as such with Inland Revenue.
<b>TDS</b>	Transaction Data Services
<b>TLS1.2</b>	Transport Layer Security version 1.2—the protocol that is observed between adjacent servers for encrypting the data that they exchange. Prior versions of TLS and all versions of SSL have been compromised and are superseded by TLS1.2.
<b>URL</b>	Universal Resource Locator—also known as a web address.
<b>User</b>	The user referred to in this document is the user of the software provider accounting or tax package. This user needs delegated permissions on Customer tax accounts (potentially via a tax agency or other intermediary) in order to use TDS. The web logon used in MyIR needs to be used in making Inland Revenue queries. This web logon must be granted permission there to access Customer Accounts. It is owned by one Customer but can be Linked to Accounts belonging to other Customers.
<b>WSDL</b>	Web Services Description Language (WSDL) is an XML-based language that provides a model for describing Web Services.
<b>XIAMS</b>	External IAMS—an instance of IAMS that authenticates and authorises access by external parties, i.e. customers, trading partners etc. as opposed to internal parties such as staff.
<b>XML</b>	EXtensible Markup Language

## 7 Appendix B—Filing Frequency Codes

Account type	Filing Frequency Code	Filing Frequency Description	MyIR Description
<b>AIL</b>	AIL6M3	Six monthly Mar/Sep	Six Monthly
<b>AIL</b>	AILI	Irregular	Irregular
<b>AIL</b>	AILMO	Monthly	Monthly
<b>AIL</b>	AIP1A	Annual	Annual
<b>MPO</b>	BPAMO	One monthly	Monthly
<b>CRS</b>	CRS1A	Annual	Annual
<b>DSB</b>	DSBMO	Monthly	Monthly
<b>DWT</b>	DWTMO	Monthly	Monthly
<b>FATCA</b>	FAT1A	Annual	Annual
<b>FBT</b>	FBT3M	Quarterly	Quarterly - Jun/Sep/Dec/Mar
<b>FBT</b>	FBT3MA	Quarterly/Annual combination	Quarterly/Annual
<b>FBT</b>	FBTA01	Annual/Income - January	Annual/Income - Jan
<b>FBT</b>	FBTA02	Annual/Income - February	Annual/Income - Feb
<b>FBT</b>	FBTA03	Annual/Income - March	Annual/Income - Mar
<b>FBT</b>	FBTA04	Annual/Income - April	Annual/Income - Apr
<b>FBT</b>	FBTA05	Annual/Income - May	Annual/Income - May
<b>FBT</b>	FBTA06	Annual/Income - June	Annual/Income - Jun
<b>FBT</b>	FBTA07	Annual/Income - July	Annual/Income - Jul
<b>FBT</b>	FBTA08	Annual/Income - August	Annual/Income - Aug
<b>FBT</b>	FBTA09	Annual/Income - September	Annual/Income - Sep
<b>FBT</b>	FBTA10	Annual/Income - October	Annual/Income - Oct
<b>FBT</b>	FBTA11	Annual/Income - November	Annual/Income - Nov
<b>FBT</b>	FBTA12	Annual/Income - December	Annual/Income - Dec
<b>FBT</b>	FBTAN	Annual	Annual - year ending March
<b>FBT</b>	FBTM01	Quarterly/Income - January	Quarterly/Income
<b>FBT</b>	FBTM02	Quarterly/Income - February	Quarterly/Income
<b>FBT</b>	FBTM03	Quarterly/Income - March	Quarterly/Income
<b>FBT</b>	FBTM04	Quarterly/Income - April	Quarterly/Income
<b>FBT</b>	FBTM05	Quarterly/Income - May	Quarterly/Income
<b>FBT</b>	FBTM06	Quarterly/Income - June	Quarterly/Income

Account type	Filing Frequency Code	Filing Frequency Description	MyIR Description
<b>FBT</b>	FBTM07	Quarterly/Income - July	Quarterly/Income
<b>FBT</b>	FBTM08	Quarterly/Income - August	Quarterly/Income
<b>FBT</b>	FBTM09	Quarterly/Income - September	Quarterly/Income
<b>FBT</b>	FBTM10	Quarterly/Income - October	Quarterly/Income
<b>FBT</b>	FBTM11	Quarterly/Income - November	Quarterly/Income
<b>FBT</b>	FBTM12	Quarterly/Income - December	Quarterly/Income
<b>FBT</b>	FBTS01	Income Year - January	Income Year
<b>FBT</b>	FBTS02	Income Year - February	Income Year
<b>FBT</b>	FBTS03	Income Year - March	Income Year
<b>FBT</b>	FBTS04	Income Year - April	Income Year
<b>FBT</b>	FBTS05	Income Year - May	Income Year
<b>FBT</b>	FBTS06	Income Year - June	Income Year
<b>FBT</b>	FBTS07	Income Year - July	Income Year
<b>FBT</b>	FBTS08	Income Year - August	Income Year
<b>FBT</b>	FBTS09	Income Year - September	Income Year
<b>FBT</b>	FBTS10	Income Year - October	Income Year
<b>FBT</b>	FBTS11	Income Year - November	Income Year
<b>FBT</b>	FBTS12	Income Year - December	Income Year
<b>GMD</b>	GMDMO	Monthly	Monthly
<b>GSD</b>	GSDMO	One Monthly	Monthly
<b>GST</b>	GSC2M1	Unpoliced Two Monthly Odd	Two Monthly
<b>GST</b>	GSC2M2	Unpoliced Two Monthly Even	Two Monthly
<b>GST</b>	GSC6M1	Unpoliced Six Monthly Jan/Jul	Six Monthly
<b>GST</b>	GSC6M2	Unpoliced Six Monthly Feb/Aug	Six Monthly
<b>GST</b>	GSC6M3	Unpoliced Six Monthly Mar/Sep	Six Monthly
<b>GST</b>	GSC6M4	Unpoliced Six Monthly Apr/Oct	Six Monthly
<b>GST</b>	GSC6M5	Unpoliced Six Monthly May/Nov	Six Monthly
<b>GST</b>	GSC6M6	Unpoliced Six Monthly Jun/Dec	Six Monthly
<b>GST</b>	GSCMO	Unpoliced One Monthly	Monthly
<b>GST</b>	GST2M1	Two Monthly Odd	Two Monthly
<b>GST</b>	GST2M2	Two Monthly Even	Two Monthly
<b>GST</b>	GST3M	Quarterly	Quarterly

Account type	Filing Frequency Code	Filing Frequency Description	MyIR Description
<b>GST</b>	GST6M1	Six Monthly Jan/Jul	Six Monthly
<b>GST</b>	GST6M2	Six Monthly Feb/Aug	Six Monthly
<b>GST</b>	GST6M3	Six Monthly Mar/Sep	Six Monthly
<b>GST</b>	GST6M4	Six Monthly Apr/Oct	Six Monthly
<b>GST</b>	GST6M5	Six Monthly May/Nov	Six Monthly
<b>GST</b>	GST6M6	Six Monthly Jun/Dec	Six Monthly
<b>GST</b>	GSTM0	One Monthly	Monthly
<b>GST</b>	GSXCDA	Non standard accounting period	Non Standard
<b>IPE</b>	IPEMO	Monthly	Monthly
<b>IPS</b>	IPS6M3	Six Monthly Mar/Sep	Six Monthly
<b>IPS</b>	IPSI	Irregular	Irregular
<b>IPS</b>	IPSIN3	Irregular Excluding March	Irregular Excluding March
<b>IPS</b>	IPSMO	Monthly	Monthly
<b>LGL</b>	LGLDAY	Daily	Daily
<b>NRT</b>	NRT6M3	Six monthly Mar/Sep	Six Monthly
<b>NRT</b>	NRTI	Irregular	Irregular
<b>NRT</b>	NRTIN3	Irregular Excluding March	Irregular Excluding March
<b>NRT</b>	NRTMO	Monthly	Monthly
<b>PIE</b>	PIE1A	Annual - Income Tax	Annual - Income Tax
<b>PIE</b>	PIE3M	Quarterly	Quarterly
<b>PIE</b>	PIEA01	Annual - Jan balance date	Annual - Jan
<b>PIE</b>	PIEA02	Annual - Feb balance date	Annual - Feb
<b>PIE</b>	PIEA03	Annual - Mar balance date	Annual - Mar
<b>PIE</b>	PIEA04	Annual - Apr balance date	Annual - Apr
<b>PIE</b>	PIEA05	Annual - May balance date	Annual - May
<b>PIE</b>	PIEA06	Annual - Jun balance date	Annual - Jun
<b>PIE</b>	PIEA07	Annual - Jul balance date	Annual - Jul
<b>PIE</b>	PIEA08	Annual - Aug balance date	Annual - Aug
<b>PIE</b>	PIEA09	Annual - Sep balance date	Annual - Sep
<b>PIE</b>	PIEA10	Annual - Oct balance date	Annual - Oct
<b>PIE</b>	PIEA11	Annual - Nov balance date	Annual - Nov
<b>PIE</b>	PIEA12	Annual - Dec balance date	Annual - Dec

Account type	Filing Frequency Code	Filing Frequency Description	MyIR Description
<b>PIE</b>	PIEMO	Monthly	Monthly
<b>PRS</b>	PRSMO	Monthly	Monthly
<b>RLT</b>	RLTM1	Monthly	Monthly
<b>RLT</b>	RLTMO	Monthly	Monthly
<b>RWT</b>	RWTMO	Monthly	Monthly

## 8 Appendix C—START Transaction Codes

*Note – this list is likely to have more entries as conversion plans are finalised*

Transaction Type	Short Description	Description
ADSOTC	Audit settlement offset	Offset used to reduce liability due to an audit settlement adjustment.
AUDDPC	Audit dispute credit	Records an audit dispute credit transaction from the audit worksheet
AUDDPD	Audit dispute debit	Records an audit dispute debit transaction from an audit worksheet.
AUDFOR	Audit forecasting transaction	This trans type is used to manage the forecasting of interest for audits.
AUDTXC	Audit credit	Records when a decrease to the debit portion of the assessment is added by an audit
AUDTXD	Audit debit	Records when an increase to the debit portion of the assessment is added by an audit
BPAXFB	Multi payment direction, no lock	Portion of multi payment allocated to this period
BPAXFBREVCRD	Reverse - Bulk payment transfer in, Bill	
BPAXFO	Multi payment transfer out	Credit from multi payment account allocated to other accounts.
BPAXFOREVOTC	Reverse - Bulk payment transfer out	
BPAXFR	Multi payment direction, lock	Portion of multi payment allocated to this period for a return.
BPAXFRREVCRD	Reverse - Bulk payment transfer in, Return	
CNVAJC	Converted adjustment, credit	Adjustment to a debit transaction converted into START
CNVAJD	Converted adjustment, debit	Adjustment to a credit transaction converted into START
CNVCRT	Converted court cost	Records a court cost transaction converted into START
CNVDOD	Converted deferral of tax credit	Records a deferral of tax transaction converted into START
CNVDOT	Converted deferral of tax	Records a deferral of tax transaction converted into START
CNVDSB	Converted disbursement	Records a disbursement transaction into START
CNVDTD	Converted deferral tax due	Records a deferral tax due transaction converted into START
CNVEWH	Converted Excess Withholding Credit	Converted Credit transaction for IPE credit claims.
CNVINC	Converted credit interest	Records credit interest that was converted into START
CNVINT	Converted interest	Records interest that was converted into START



Transaction Type	Short Description	Description
CNVLTF	Converted late filing penalty	Records the late filing penalty that was converted into START
CNVPLF	Converted late filing penalty	Records the late filing penalty that was converted into START. This penalty is not tied to the return and is manually reversible.
CNVPNL	Converted penalty	Records penalty that was converted into START
CNVPYM	Converted payment	Records a converted payment transaction as a transaction. This payment was manually converted.
CNVRID	Converted interest remission	Records an interest remission transaction converted into START. This remission is not tied to the return and is manually reversible.
CNVRIN	Converted interest remission	Records an interest remission transaction converted into START
CNVRLF	Cnv late filing penalty remission	Records a penalty remission transaction converted into START
CNVRPF	Cnv late filing penalty remission	Records a penalty remission transaction converted into START. This remission is not tied to the return and is manually reversible.
CNVRPN	Converted penalty remission	Records a penalty remission transaction converted into START
CNVRPP	Converted penalty remission	Records a penalty remission transaction converted into START. This remission is not tied to the return and is manually reversible.
CNVSBD	Converted small balance offset debit	Records a small balance offset transaction converted into START. This is a debit transaction offsetting a credit.
CNVSBO	Converted small balance offset	Records a small balance offset transaction converted into START
CNVSHR	Converted shortfall penalty	Records a shortfall penalty that was converted into START.
CNVSOL	Converted solicitor's fee	Records a solicitor's fee transaction converted into START
CNVSPT	Converted special tax	Records a special tax transaction converted into START
CNVTBR	Converted time bar	Time bar offset for a credit transaction
CNVTXC	Converted return credit	Records a tax credit that was converted into START
CNVTXD	Converted return debit	Records a tax debit that was converted into START
CNVWOC	Converted write-off	Records a write-off credit transaction converted into START
CNVWOD	Converted write-off of credit	Records a write-off debit transaction converted into START
CNVWTH	Converted withholding tax	Records a withholding tax transaction converted into START
CNVXFI	Converted transfer in	Records a credit transfer in transaction converted into START
CNVXFO	Converted transfer out	Records a credit transfer out transaction converted into START.
CRDEWH	Excess Withholding Credit	Credit transaction for IPE credit claims.

Transaction Type	Short Description	Description
CRDNTE	GST Credit Note	Transaction to add when adding a credit note activity in the taxpayer rulings case.
CROOTD	Converted remission offset	Records a debit transaction that offsets a converted remission when it has a balance
CSOOTC	Converted small balance offset offset, credit	Records a credit transaction that offsets a converted small balance offset when it has a balance
CSOOTD	Converted small balance offset offset, debit	Records a debit transaction that offsets a converted small balance offset when it has a balance
CWOOTC	Converted write-off offset, credit	Records a credit transaction that offsets a converted write-off when it has a balance
CWOOTD	Converted write-off offset, debit	Records a debit transaction that offsets a converted write-off when it has a balance
DSBCBD	Disbursement, international manual	Disbursement issued to the customer via citi direct portal
DSBCHQ	Disbursement, cheque	Disbursement issued to the customer via cheque
DSBDIR	Disbursement, direct credit	Disbursement issued to the customer via direct credit
DSBIAC	Disbursement, international ACH	Disbursement issued to the customer via international ACH
DSBIBD	Disbursement, bank draft	Disbursement issued to the customer via international bank draft.
DSBIBDREVOTC	Reverse - Disbursement, bank draft	
DSBSEP	Disbursement, SEPA	Disbursement issued to the customer via SEPA
DSBTTR	Disbursement, telegraphic transfer	Disbursement issued to the customer via telegraphic transfer (SWIFT)
DSXCPR	FIRST Child Support Receiving Career Intercept	A portion of the disbursement has been intercepted to be sent to FIRST
DSXCSE	FIRST Child Support Employee Deductions Intercept	A portion of the disbursement has been intercepted to be sent to FIRST
DSXFAM	FIRST Working for Families Tax Credit Intercept	A portion of the disbursement has been intercepted to be sent to FIRST
DSXFIR	Disbursement intercept, FIRST	A portion of the disbursement has been intercepted to be sent to FIRST
DSXICA	FIRST Imputation Credit Account Intercept	A portion of the disbursement has been intercepted to be sent to FIRST
DSXINC	FIRST Income Tax Intercept	A portion of the disbursement has been intercepted to be sent to FIRST
DSXKSE	FIRST KiwiSaver Employee Deductions Intercept	A portion of the disbursement has been intercepted to be sent to FIRST
DSXKSR	FIRST KiwiSaver Employer	A portion of the disbursement has been intercepted to be sent to FIRST

Transaction Type	Short Description	Description
	Contribution Intercept	
DSXMAC	FIRST Maori Authority Credit Account Intercept	A portion of the disbursement has been intercepted to be sent to FIRST
DSXNCP	FIRST Child Support Payment Parent Intercept	A portion of the disbursement has been intercepted to be sent to FIRST
DSXPAY	FIRST Pay As You Earn Income Tax Deductions Intercept	A portion of the disbursement has been intercepted to be sent to FIRST
DSXPRV	Disbursement intercept, Provisional Tax	A portion of the disbursement has been intercepted to be sent to FIRST for provisional tax.
DSXQCT	FIRST Qualifying Company Election Tax Intercept	A portion of the disbursement has been intercepted to be sent to FIRST
DSXREB	FIRST Tax Credit Overpayments Intercept	A portion of the disbursement has been intercepted to be sent to FIRST
DSXSHR	FIRST Shareholder Premium Intercept	A portion of the disbursement has been intercepted to be sent to FIRST
DSXSLE	FIRST Student Loan Employee Deductions Intercept	A portion of the disbursement has been intercepted to be sent to FIRST
DSXSLS	FIRST Student Loans Annual Account Intercept	A portion of the disbursement has been intercepted to be sent to FIRST
DSXSSC	FIRST Specified Superannuation Contribution Intercept	A portion of the disbursement has been intercepted to be sent to FIRST
EXGCRC	Ex gratia credit	Ex gratia credit that is used to decrease a debit transaction
FEEAPC	Application fee credit	Credit note for tru application fee
FEEAPP	Application fee	Fee associated to an application.
FEECCC	Court awarded costs, credit	Credit that is awarded to the customer by the courts.
FEECCD	Court awarded costs, debit	Fee added as part of a legal action
FEEDMG	Damages and restitution costs	Costs that are applied as part of a damage or restitution case
FEEDSB	Legal disbursements	Court Filing Fee and Court Sealing Fee for bankruptcies or liquidations
FEEDSC	Legal disbursements credit note	Legal disbursements for issuing credit note in binding ruling case
FEEEXC	External costs credit note	External costs incurred by binding ruling case credit note
FEEEXT	External costs	External costs incurred by Departmental and passed on to the customer

Transaction Type	Short Description	Description
FEEGSC	Goods and Service Tax Charged Credit	The amount of GST tax charged credit note
FEEGST	Goods and Service Tax Charged	The amount of goods and service tax that was charged as part of the service provided.
FEELQD	Liquidation costs	Costs that are applied as part of the liquidation process
FEESCR	Services provided credit note	Credit note for fee evaluated during binding ruling case
FESEEC	Security fee	Fee based on a security that has been issued
FEESOL	Solicitor's costs	Solicitor's Fees awarded by the Court
FEESVC	Services provided	Fee evaluated during the binding ruling process for services provided.
FRSCRD	Credit transferred from FIRST	Credit that was transferred from FIRST
FWDAIL	Transfer to AIL	Debit transaction used to offset a credit transaction when being transferred to a Account Issuer Levy account
FWDAILREVOTC	Reverse Transfer to Account Issuer Levy	
FWDAIP	Transfer to AIP	Debit transaction used to offset a credit transaction when being transferred to an Account Information Provider account
FWDAIPREVOTC	Reverse - Transfer to Account Information Provider	
FWDCRS	Transfer to CRS	Debit transaction used to offset a credit transaction when being transferred to a Common Reporting Standard account
FWDCRSREVOTC	Reverse - Transfer to Common Reporting Standard	
FWDDWT	Transfer to DWT	Debit transaction used to offset a credit transaction when being transferred to a Dividend Withholding Tax account
FWDDWTREVOTC	Reverse - Transfer to Dividend Withholding Tax	
FWDFBT	Transfer to FBT	Debit transaction used to offset a credit transaction when being transferred to a Fringe Benefit Tax account
FWDFBTREVOTC	Reverse - Transfer to Fringe Benefit Tax	
FWDGMD	Transfer to GMD	Debit transaction used to offset a credit transaction when being transferred to a Gaming Machine Duty account
FWDGMDREVOTC	Reverse - Transfer to Gaming Machine Duty	
FWDGSD	Transfer to GSD	Debit transaction that transfer a credit to a Goods Sold in Satisfaction of Debt account

Transaction Type	Short Description	Description
FWDGST	Transfer to GST	Debit transaction used to offset a credit transaction when being transferred to a Goods and Services Tax account
FWDIPE	Transfer to IPE	Debit transaction used to offset a credit transaction when being transferred to a Interest PAYE Exemption account
FWDIPEREVOTC	Reverse - Transfer to Interest PAYE Exemption	
FWDIPS	Transfer to IPS	Debit transaction used to offset a credit transaction when being transferred to an RWT - deductions from interest (IPS) account
FWDIPSREVOTC	Reverse - Transfer to RWT - deductions from interest (IPS)	
FWDLGL	Transfer to LGL	Debit transaction used to offset a credit transaction when being transferred to a legal costs account
FWDNRT	Transfer to NRT	Debit transaction used to offset a credit transaction when being transferred to a Non-Resident Withholding Tax account
FWDNRTREVOTC	Reverse - Transfer to Non-Resident Withholding Tax	
FWDPIE	Transfer to PIE	Debit transaction used to offset a credit transaction when being transferred to a Portfolio Investment Entity account
FWDPIEREVOTC	Reverse - Transfer to Portfolio Investment Entity	
FWDPRS	Transfer to PRS	Debit transaction used to offset a credit transaction when being transferred to a Payroll Subsidy account
FWDRLT	Transfer to RLT	Debit transaction used to offset a credit transaction when being transferred to a Residential Land Withholding Tax account
FWDRLTREVOTC	Reverse - Transfer to Residential Land Withholding Tax	
FWDROL	Transfer to ROL	Debit transaction used to offset a credit transaction when being transferred to a Rulings & Determinations account
FWDJWT	Transfer to JWT	Debit transaction used to offset a credit transaction when being transferred to an RWT - Specified Dividends account
FWDJWTREVOTC	Reverse - Transfer to RWT - Specified Dividends	
GLDCRD	GL disbursement credit	Credit that has been generated by a GL disbursement activity.
INTCRD	Use of money credit interest	Use of money interest that is calculated on credit transactions

Transaction Type	Short Description	Description
INTMNC	Manual credit interest	Manually posted credit interest transaction
INTMND	Manual debit interest	Manually posted interest transaction
INTSTD	Use of money debit interest	Use of money interest that is calculated on debit transactions
INTWTH	Tax withheld on credit interest	Records the amount that is to be withheld from credit interest
MNLLTF	Late filing penalty	Penalty recorded when a return or form is filed late
OFFBRP	Proceeds on bankruptcy, offset	Offsetting transaction used to record when a payment has been received for proceeds on a bankruptcy
PNLFPY	Failure to Meet Requirements	This transaction is used to apply a 'Failure to Meet Requirements' penalty to CRS accounts.
PNLFRC	Failure to Take Reasonable Care	This transaction is used to apply a 'Failure to Take Reasonable Care' penalty to CRS accounts.
PNLIPP	Information Provider Penalty	This transaction is used to apply a 'Information Provider Penalty' to AIP accounts.
PNLLFE	Late filing penalty evaluation	This transaction is used to apply late filing penalty when no return has been added
PNLLFR	Late filing reconciliation penalty evaluation	This transaction is used to apply late filing penalty when no reconciliation return has been added
PNLLTF	Late filing penalty	Penalty recorded when a return or form is filed late
PNLLTP	Late payment penalty	Penalty recorded when a payment is deemed late
PNLMNL	Manual penalty	Manually posted penalty transaction
PNLSHR	Shortfall penalty	Records the shortfall penalty that is due
PRTOTC	Deferral of tax in dispute offset	Credit transaction that is used to mark a deferral of tax debit transaction that is under dispute.
PRTOTD	Deferral of tax in dispute offset, debit	Debit transaction that is used to mark a deferral of tax credit transaction that is under dispute.
PYMACC	Account payment	Credit resulting from a account payment voucher
PYMAUD	Audit payment	Credit resulting from an audit payment voucher
PYMBKD	Deduction Payment	Credit resulting from a deduction payment voucher
PYMBKDREVCRD	Reverse - Deduction Payment	
PYMBLK	Multi Payment	Credit resulting from a multi payment voucher
PYMBLKREVCRD	Reverse - Bulk Payment	
PYMBRP	Proceeds on bankruptcy, payment	Credit resulting from a proceeds on bankruptcy payment voucher
PYMCOL	Collection payment	Credit resulting from a collection payment voucher
PYMCST	Customer payment	Credit resulting from a customer payment voucher
PYMEST	Estimated Payment	Credit resulting from an estimated payment voucher
PYMESTREVCRD	Reverse - Estimated Payment	
PYMLCA	Locked payment, audit	Offsets a payment transaction so that it does not offset other debit transactions until the audit transaction posts.

Transaction Type	Short Description	Description
PYMLCR	Locked payment, return	Offsets a payment transaction so that it does not offset other debit transactions until the return transaction posts.
PYMPLN	Instalment arrangement payment	Credit resulting from a instalment arrangement payment voucher
PYMPRD	Period payment	Credit resulting from a period payment voucher
PYMRTN	Return payment	Credit resulting from a return payment voucher
RECAIL	Transfer from AIL	Credit transaction received from a different account or period that posts from a Account Issuer Levy account
RECAILREVCRD	Reverse - Transfer from Account Issuer Levy	
RECAIP	Transfer from AIP	Credit transaction received from a different account or period that posts from an Account Information Provider account
RECAIPREVCRD	Reverse - Transfer from Account Information Provider	
RECCRS	Transfer from CRS	Credit transaction received from a different account or period that posts from a Common Reporting Standard account
RECCRSREVCRD	Reverse - Transfer from Common Reporting Standard	
RECDWT	Transfer from DWT	Credit transaction received from a different account or period that posts from a Dividend Withholding Tax account
RECDWTREVCRD	Reverse - Transfer from DWT	
RECFBT	Transfer from FBT	Credit transaction received from a different account or period that posts from a Fringe Benefit Tax account
RECFBTREVCRD	Reverse - Transfer from FBT	
RECGMD	Transfer from GMD	Credit transaction received from a different account or period that posts from a Gaming Machine Duty account
RECGMDREVCRD	Reverse - Transfer from GMD	
RECGSD	Transfer from GSD	Credit transaction received from a different account or period that posts from a GSD account
RECGST	Transfer from GST	Credit transaction received from a different account or period that posts from a Goods and Service Tax account
RECIPE	Transfer from IPE	Credit transaction received from a different account or period that posts from a Interest PAYE Exemption account



Transaction Type	Short Description	Description
RECIPEREVCRD	Reverse - Transfer from Interest PAYE Exemption	
RECIPS	Transfer from IPS	Credit transaction received from a different account or period that posts from a RWT - deductions from interest (IPS) account
RECIPSREVCRD	Reverse - Transfer from RWT - deductions from interest (IPS)	
RECLGL	Transfer from LGL	Credit transaction received from a different account or period that posts from a Legal Costs account
RECNR	Transfer from NRT	Credit transaction received from a different account or period that posts from a Non-Resident Withholding Tax account
RECNRREVCRD	Reverse - Transfer from Non-Resident Withholding Tax	
RECPIE	Transfer from PIE	Credit transaction received from a different account or period that posts from a Portfolio Investment Entity account
RECPIEREVCRD	Reverse - Transfer from Portfolio Investment Entity	
RECPRS	Transfer from PRS	Credit transaction received from a different account or period that posts from a Payroll Subsidy account
RECRLT	Transfer from RLT	Credit transaction received from a different account or period that posts from a Resident Land Withholding account
RECRLTREVCRD	Reverse - Transfer from Resident Land Withholding Tax	
RECRUL	Transfer from RUL	Credit transaction received from a different account or period that posts from a Ruling and Determinations account
RECRWT	Transfer from RWT	Credit transaction received from a different account or period that posts from a RWT - Specified Dividends account
RECRWTREVCRD	Reverse - Transfer from RWT - Specified Dividends	
REVCRD	Reverse credit transaction	Debit transaction used to offset a credit transaction that is reversed
REVINC	Reverse interest transaction	Credit transaction used to offset an interest debit transaction that is reversed
REVIND	Reverse credit interest transaction	Debit transaction used to offset an interest credit transaction that is reversed
REVOTC	Reverse other transaction	Credit transaction used to offset another debit transaction that is reversed
REVOTD	Reverse credit other transaction	Debit transaction used to offset another credit transaction that is reversed



Transaction Type	Short Description	Description
REVPNC	Reverse penalty transaction	Credit transaction used to offset a penalty debit transaction that is reversed
REVTXC	Reverse assessment transaction	Credit transaction used to offset a primary debit transaction that is reversed
REVTXD	Reverse credit assessment transaction	Debit transaction used to offset a primary credit transaction that is reversed
RTNAMA	Amended annual return debit	Standard transaction for amended annual return forms that result in an increase of debit.
RTNAMI	Amended income year return debit	Standard transaction for amended income year return forms that result in an increase of debit.
RTNAMR	Amended return debit	Standard transaction for amended return forms that result in an increase of debit.
RTNANC	Annual return credit	Standard transaction for annual return forms that result in a Credit.
RTNAND	Annual return debit	Standard transaction for annual return forms that result in a debit.
RTNCRD	Return credit	Standard transaction for return forms that result in a Credit.
RTNDAC	Default assessment credit	Transaction that is posted from a default assessment when it results in a credit.
RTNDAD	Default assessment	Transaction that is posted from a default assessment when it results in a debit.
RTNINC	Income year return credit	Standard transaction for income year return forms that result in a Credit.
RTNIND	Income year return debit	Standard transaction for income year return forms that result in a debit.
RTNORI	Return debit	Standard transaction for return forms that result in a debit.
SBOOTC	Small balance offset	Credit transaction that is used to offset a small debit transaction
TBROTD	Time bar	Time bar offset for a credit transaction
WAVOTC	Remission	Offsets a penalty or interest transaction that has been remitted.
WOOTC	Other write-off	Write-off another transaction type
WOSOTC	Other system write-off	System write-off of another transaction type
XFRDSC	Disbursement transfer source credit	Credit transaction that is posted when a disbursement is transferred
XFRIN	Credit transfer in	Credit transfer into a period from a different period on the same account
XFROUT	Credit transfer out	Credit transfer from this period to a different period on the same account

## 9 Appendix D – Tax Agent Web Service Transaction Types

Tax Agent Web Service Transaction Type Code	Tax Agent Web Service Transaction Type Code Description
<b>0000</b>	Internal Data
<b>0020</b>	Additional Interest
<b>0025</b>	Additional Interest Reversal
<b>0030</b>	Additional Penal Charge
<b>0034</b>	Additional Penal Charge Reversal
<b>0035</b>	Additional Penal Charge Remission
<b>0036</b>	Additional Penal Charge Remission Reversal
<b>0040</b>	Additional Tax
<b>0045</b>	Additional Tax Remission
<b>0046</b>	Additional Tax Remission Reversal
<b>0047</b>	Additional Tax Reversal
<b>0050</b>	Amnesty Penalty
<b>0055</b>	Amnesty Penalty Reduction
<b>0060</b>	Assessment
<b>0061</b>	Reversal Assessment Reversal
<b>0065</b>	Assessment Reversal
<b>0070</b>	Capitalisation
<b>0075</b>	Capitalisation Reversal
<b>0080</b>	Court Costs
<b>0085</b>	Court Costs Reversal
<b>0090</b>	Credit retained
<b>0095</b>	Credit retained Reversal
<b>0100</b>	Credited to Loan
<b>0105</b>	Credited to Loan Reversal
<b>0130</b>	Default Assessment
<b>0135</b>	Default Assessment Reversal
<b>0150</b>	Deferred Tax
<b>0151</b>	Deferred Assessment Due
<b>0152</b>	Deferred Assessment Due Reversal
<b>0153</b>	Deferred Repayment Obligation
<b>0154</b>	Deferred Repayment Obligation Reversed

<b>Tax Agent Web Service Transaction Type Code</b>	<b>Tax Agent Web Service Transaction Type Code Description</b>
<b>0155</b>	Deferred Tax Reversal
<b>0156</b>	Deferred Tax Payable
<b>0157</b>	Deferred Tax Payable Reversal
<b>0160</b>	Early Payment Discount
<b>0165</b>	Early Payment Discount Reversal
<b>0210</b>	Incremental Late Payment Penalty
<b>0211</b>	Incremental Late Payment Penalty Cancellation
<b>0212</b>	Incremental Late Payment Penalty Cancellation Reversal
<b>0214</b>	Incremental Late Payment Penalty Remission
<b>0215</b>	Incremental Late Payment Penalty Remission Reversal
<b>0216</b>	Incremental Late Payment Penalty Reversal
<b>0220</b>	Interest
<b>0221</b>	Interest Adjustment
<b>0222</b>	Interest Adjustment Reversal
<b>0223</b>	Interest C/Fwd
<b>0224</b>	Interest C/Fwd Reversal
<b>0225</b>	Interest on Tax in Dispute
<b>0226</b>	Interest on Tax in Dispute Reversal
<b>0227</b>	Interest Remission
<b>0228</b>	Interest Remission Reversal
<b>0230</b>	Interest Reversal
<b>0235</b>	Interest Write-Off
<b>0236</b>	Interest Write-Off Reversal
<b>0240</b>	Interim Repayment Obligation
<b>0245</b>	Interim Repayment Reversal
<b>0255</b>	Late filing Penalty
<b>0256</b>	Late Filing Penalty Remission
<b>0257</b>	Late Filing Penalty Remission Reversal
<b>0258</b>	Late Filing Penalty Reversal
<b>0260</b>	Late Payment Penalty
<b>0262</b>	Late Payment Penalty Cancellation
<b>0263</b>	Late Payment Penalty Cancellation reversal

<b>Tax Agent Web Service Transaction Type Code</b>	<b>Tax Agent Web Service Transaction Type Code Description</b>
<b>0265</b>	Late Payment Penalty Remission
<b>0266</b>	Late Payment Penalty Remission Reversal
<b>0267</b>	Late Payment Penalty Reversal
<b>0350</b>	Non Payment Penalty Partial Remission
<b>0352</b>	Non Resident Interest Write-Off
<b>0360</b>	Non-electronic Filing Penalty
<b>0365</b>	Non-electronic Filing Penalty Remission
<b>0366</b>	Non-electronic Filing Penalty Remission Reversal
<b>0368</b>	Non-electronic Filing Penalty Reversal
<b>0370</b>	Reduced Late Payment Interest
<b>0372</b>	Reduced Late Payment Interest Reversal
<b>0374</b>	Reduced Late Payment Interest Remission
<b>0376</b>	Reduced Late Payment Interest Remission Reversal
<b>0380</b>	Payment - Thank You
<b>0383</b>	Payment Dishonoured
<b>0385</b>	Payment Reversal
<b>0386</b>	Payment Cancelled
<b>0387</b>	Late Payment Interest
<b>0388</b>	Payment Transferred In
<b>0389</b>	Payment Transferred Out
<b>0390</b>	Penal Assessment
<b>0391</b>	Penal Charge
<b>0392</b>	Penal Tax
<b>0393</b>	Penal Tax Additional Tax
<b>0394</b>	Penal Tax Reversal
<b>0395</b>	Penal Assessment Reversal
<b>0396</b>	Penal Charge Reversal
<b>0397</b>	Penal Tax Additional Tax Remission
<b>0398</b>	Penal Tax Additional Tax Remission Reversal
<b>0399</b>	Penal Tax Additional Tax Reversal
<b>0400</b>	Penalty
<b>0401</b>	Penalty - failure to provide info remission
<b>0402</b>	Penalty - failure to provide info remission reversal

<b>Tax Agent Web Service Transaction Type Code</b>	<b>Tax Agent Web Service Transaction Type Code Description</b>
<b>0403</b>	Penalty Remission
<b>0404</b>	Penalty Remission Reversal
<b>0405</b>	Penalty Reversal
<b>0406</b>	Penalty Tax
<b>0407</b>	Penalty Tax Remission
<b>0408</b>	Penalty Tax Remission Reversal
<b>0409</b>	Penalty Tax Reversal
<b>0416</b>	Late payment penalty - waived
<b>0417</b>	Late payment interest - waived
<b>0450</b>	Refund
<b>0452</b>	Payment
<b>0455</b>	Refund reversal
<b>0480</b>	Reversal of previous Interest Reversal
<b>0485</b>	Reversal of Additional Tax Reversal
<b>0490</b>	RWT on Interest Reconciliation Assessment
<b>0495</b>	RWT on Interest Reconciliation Assessment Reversal
<b>0500</b>	Shortfall Penalty
<b>0501</b>	Shortfall Penalty Reversal
<b>0510</b>	Solicitor's Fees
<b>0515</b>	Solicitor's Fees Reversal
<b>0520</b>	Special Return
<b>0525</b>	special Return Reversal
<b>0540</b>	Tax Credit for Payroll Donations
<b>0545</b>	Tax Credit for Payroll Donations Reversal
<b>0570</b>	Transfer
<b>0580</b>	Transfer Reversed
<b>0600</b>	Use of Money Interest
<b>0601</b>	Use of Money Interest Reversal
<b>0605</b>	Use of Money Interest Remission
<b>0606</b>	Use of Money Interest Remission Reversal
<b>0670</b>	Write-off
<b>0675</b>	Write-off Reversal
<b>0680</b>	Write-Off Purification

<b>Tax Agent Web Service Transaction Type Code</b>	<b>Tax Agent Web Service Transaction Type Code Description</b>
<b>0685</b>	Write-Off Purification Reversal
<b>0690</b>	GST Special Return Assessment
<b>0695</b>	GST Special Return Assessment Reversal
<b>0800</b>	Payment returned
<b>0802</b>	Payment returned to other IRD number
<b>0803</b>	Payment returned cancelled
<b>UNKN</b>	N/A

## 10 Appendix E - Document History

Version	Date	Description
<b>0.1</b>	15 Aug 2017	Internal only
<b>0.2</b>	8 Sep 17	Draft for initial feedback
		Updated with SME changes Inserted Sections 2.4, 2.5, 2.6 and 2.7
<b>0.5</b>	Oct/Nov 2017	Removed financial descriptions Updated scenarios and use cases Finalised various sections ready for review
<b>0.6</b>	22 Nov 2017	Updated Bank Account details New Build Pack Overview diagram including second Intermediation Build Pack Added MPO and DSB as Account Types – Section 2.3 Added History transaction and tax type list sections Updates to Section 2.9 Data Conversion Updated use case diagram – Section 3.3 and Use cases BUC104, BUC105, PUC205 - Expanded TDS Real time related Use cases listing. Cosmetic updates to other use cases Added onboarding section including bulk linking Added Tax Agent Web Service Transaction Type Table – Appendix D