

Inland Revenue

## Build Pack: Transaction Data Services Overview and Transition

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## 1 Overview

Inland Revenue has a suite of digital services available for consumption by our partners that support efficient, electronic business interactions with Inland Revenue. 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 that consists of various technical services, which in turn rely on parts of the Gateway Services suite.

This document is provided to Software Providers to support their use of Transaction Data Services (TDS). It

- provides a high level business overview of TDS to enable an understanding of the service being offered
- describes the data being made available through the services
- describes processes and use cases for the use of these services
- describes the onboarding process
- describes the permission model

In addition it provides information about transitioning from Tax Agent Web Services to 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 is part of the suite of build packs that Software Providers need for implementing interfaces between their software and Inland Revenue TDS. It is to 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.

### 1.1 Solution Overview

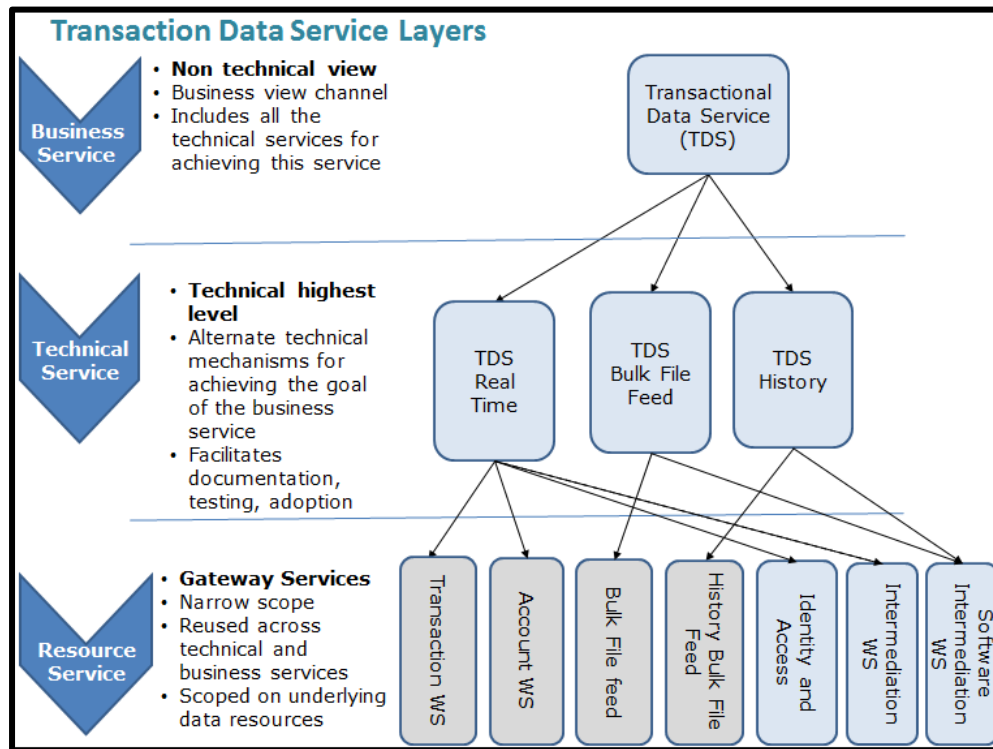
Transaction Data Services (TDS) is a business service that consists of various technical services, which in turn rely on parts of the Gateway Services suite.

TDS provides Inland Revenue Customer financial transaction data for consumption by software packages. In turn these packages present that data to their users.

Financial transaction data includes amounts assessed and associated credits or debits. There is no data sent associated with the details of how an assessment has been calculated.

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

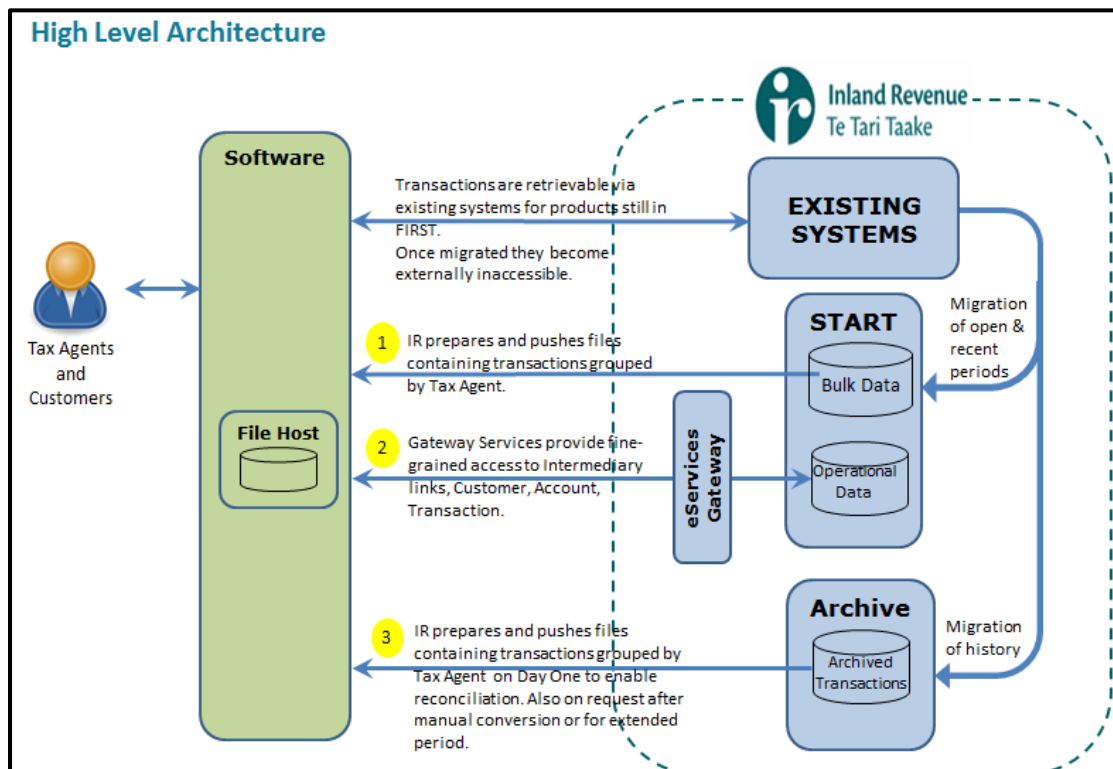
The following diagram explains the layers of TDS and the actual services offered:



**Figure 1. Transaction Data Services Layers**

## 1.2 This solution

The following diagram outlines the sources and targets for Transaction data during the transition phase from Inland Revenue's FIRST system to the new START system and from Tax Agent Web Services to TDS:



**Figure 2. High Level Architecture**

The service consists of the following three related business services shown above:

Technical Service	Description
1. Bulk File Feed of Transaction Data	<p>The Bulk File Feed is an overnight file feed that pushes new transaction data to Tax Agents or Customers via the Software Providers whose software they rely on.</p> <p>It caters for the high volumes of transaction data Inland Revenue makes visible to authorised parties.</p>
2. Real Time Feed of Transaction Data	<p>The Real Time Feed gives access to transaction data to Tax Agents or Customers via web services.</p> <p>It caters for real time queries that need additional information to the bulk file feed or need an urgent update related to a change event.</p> <p>It is not intended for use without the bulk file feed except by parties with small datasets to query.</p>
3. History Feed of Transaction Data	<p>The History Feed is primarily a one-off SFTP file providing seven years of history data for all Tax Agents and Customers included in the History Bulk File at Day One.</p> <p>This provides access to the original transaction data history from the Inland Revenue FIRST system and allows for:</p> <ul style="list-style-type: none"> <li>the update of any transactions not received through Tax Agent Web Services</li> <li>the reconciliation of converted transactions with previously held transactions.</li> </ul> <p>The History transactions will contain the START Transaction ID to which the transaction has been converted. See Section 2.8.4 for examples.</p>

**Table 1. Business Services in TDS**

### 1.3 Intended Audience

The solution outlined in this document is for Software Providers who wish to provide access to Transaction Data Services through their software or currently provide access to Tax Agent Web Services through their software and wish to transition their Clients to TDS.

### 1.4 Fundamental concepts - interacting parties in TDS

This section gives an overview of the type of consumer system TDS is designed for, and the roles utilised in interactions with TDS.

For detail on the nature and structure of data exchanged please see Section 2 below.





Entity in interaction	Description
<b>Customer</b>	<p>TDS provides transaction data associated with Inland Revenue Customers.</p> <p>A Customer includes citizens and entities that have tax and/or social policy obligations and/or entitlements in New Zealand. This includes all Customers registered with Inland Revenue, either individuals or non-individuals.</p> <p>A Customer may interact with Inland Revenue:</p> <ul style="list-style-type: none"> <li>• using their own software application</li> <li>• as a client of a Business Intermediary such as a Tax Agent</li> <li>• as a client of a Software Provider</li> <li>• or they may be a combination of the above</li> </ul> <p>Customer data is grouped under Accounts where each Account has an account type – correlating with a tax type, eg GST, INC. In this documentation, unless otherwise stated, the term Customer does <u>not</u> refer to the consuming software. See the definition of System Customer Record below for the broader usage of the term Customer.</p> <p>The term Customer is also used as shorthand when referring to an individual user logging in that is associated to a Customer. Such a user has to have permissions delegated to look at the Customer data, as explained in the <a href="#">Delegation Section</a> of this document.</p>
<b>Gateway Services</b>	<p>Software level or B2B integration between Inland Revenue and its new systems happens through the Inland Revenue Gateway Services (GWS). These are largely SOAP web services but also include other APIs and file transfers.</p> <p>In the case of TDS it includes file transfers to an SFTP host site set up by the Software Provider during onboarding.</p> <p>Some TDS related Gateway services are used more broadly than just by TDS and are not branded TDS.</p>
<b>History</b>	<p>Transaction data is inherently all historical. However, in the context of TDS History, this refers to data in the format used in Tax Agent Web Services which was previously available. This data may still be of value to some Software Providers that consume TDS.</p> <p>The same linking and permissions and SFTP file transfer logic that applies to the TDS Bulk File feed also generally applies to the TDS Bulk History Feed.</p>
<b>Intermediary</b>	<p>An Intermediary is an individual or organisation that interacts with Inland Revenue on behalf of other individuals or organisations. Intermediaries are generally of a particular type such as:</p> <ul style="list-style-type: none"> <li>• Payroll Intermediary</li> <li>• Personal Tax Summary Intermediary</li> <li>• Tax Agent – see below</li> </ul>



Entity in interaction	Description
<b>Intermediation</b>	<p>Intermediation is the process of linking an Intermediary with an individual or organisation to enable that Intermediary to act on behalf of for tax purposes.</p> <p>The Intermediation GWS will eventually provide features to enable this linking. Initially however, it will provide only a listing of links already in place. Currently only Tax Agent Links are supported.</p>
<b>System Customer Record</b>	<p>System Customer Records in Inland Revenue serve a broader purpose than the above definition of Customer. This includes:</p> <ul style="list-style-type: none"> <li>• System Customer Records for potential Inland Revenue Customers – as defined above. There are circumstances where such System Customer Records exist within Inland Revenue systems and there are no tax or social policy obligations and/or entitlements (yet) and therefore potentially no IRD number allocated; however this is rare.</li> <li>• Software Providers/Platforms, for the purposes of TDS or other gateway services, will be created as System Customer Records and will then be allocated a Customer ID to use as the provider/platform ID (of type CST/Customer ID). There will be no filing obligations associated with this ID and therefore no IRD number.</li> </ul>
<b>myIR Logon - Inland Revenue Online Services Account</b>	<p>Inland Revenue through myIR portal allows Inland Revenue Customers (tax entities) and Tax Agents (Tax Agencies) to delegate permissions to specific users through web logons. These same logon accounts are used to interact with TDS. Throughout this document these logon accounts will be referred to as myIR Logons.</p> <p>TDS, as part of the bulk file feed, publishes what these permissions are to the Software Providers so their platforms have the ability to align permissions or follow any other strategy with permissions that is transparent to their users and Inland Revenue – this is expected to vary. This is an interim solution to allow Software Providers to move to the position of managing these permissions within their software. The duration of the provision of this data by Inland Revenue has not yet been determined. For more information refer to Section 6 Delegation and permissions.</p> <p>In order to link a Software Platform to a Tax Agent or Customer Accounts a myIR Logon for a person with such delegated access is required.</p>

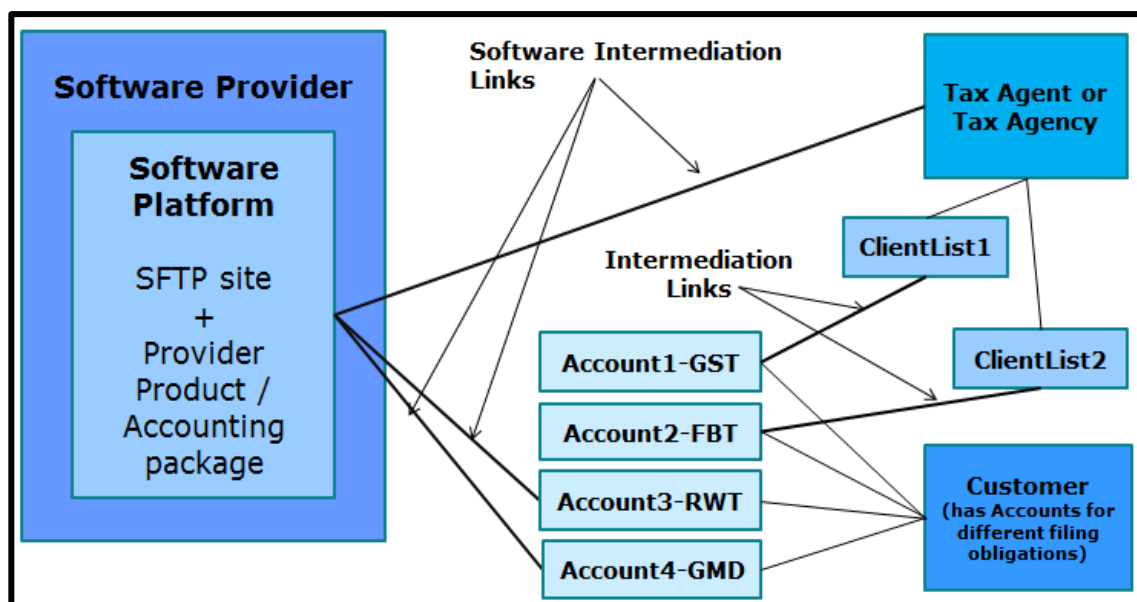


Entity in interaction	Description
<b>Software Intermediation</b>	<p>The Software Intermediation service provides the ability for Software Providers to link to their Customers and Tax Agents in order to receive the bulk feed of their transaction data. The Software Intermediation service allows these links to be established, queried, or removed.</p> <p>There is a separate Intermediation service that deals with links between business intermediaries like tax agents and their client lists and customer accounts. The actual dataset resulting in bulk files from a Software Intermediation link will be impacted by those Intermediation links but the links themselves are maintained separately.</p>
<b>Software Platform</b>	<p>To interact with TDS the Software Provider needs to register a software platform with Inland Revenue through an onboarding process. This platform typically needs to consist of two aspects.</p> <ul style="list-style-type: none"> <li>a) An SFTP site set up by the owner of the software to receive bulk file feeds. (A platform only used by a single Customer for their own small amount of data might not require this if they do not use the Bulk File.)</li> <li>b) The software that the end user uses to look at the data and that can do real time queries into TDS to update relationship links or look at small sets of data.</li> </ul> <p>Information about the Software Platform needs to be accurately exchanged during the onboarding process. The Software Platform registration is covered in detail in Section 5 Onboarding.</p> <p>This Software Platform can have multiple versions as the software moves through various development phases.</p>
<b>Software Provider</b>	<p>Software Provider in the TDS context is a broad concept referring to any party who goes through the process of onboarding their software platform with Inland Revenue.</p> <p>Early TDS adopters are largely software vendors in the market but some have their own in house bespoke solutions or customise packages from other parties. The Software Provider adapts their software to call TDS, sets up an SFTP site for receiving bulk file data, and signs a partner test plan with Inland Revenue.</p> <p>See below for further information and refer to section 5 Onboarding, and the Partner Test Plan template for more information.</p>



Entity in interaction	Description
<b>Tax Agent</b>	<p>A Tax Agent is an individual or non-individual who has been formally registered with Inland Revenue as a Tax Agent.</p> <p>A Tax Agent will have access to Inland Revenue Customer data via Client Lists which are used to group the Customer Accounts linked to the Tax Agent.</p> <p>The term Tax Agent is also used as shorthand when referring to an individual user logging in that is associated to a Tax Agent.</p> <p>Such a user needs to have permissions delegated to look at the Tax Agent Client lists, as explained in the <a href="#">Delegation Section</a> of this document. The Tax Agent might have created client lists with only the Accounts for that user.</p> <p><i>Note: Customer level links (i.e. linking to all Accounts of a Customer at once) will no longer be used by Inland Revenue going forward in their new system START and will not be available in TDS.</i></p>
<b>Transaction Data Services</b>	<p>TDS allows Tax Agents and Customers access to Customer data through two access paths; one to access data via Tax Agent delegation, and another to access data in a more direct way without relying on Tax Agent linking (Direct Customer).</p> <p>TDS provides data primarily through a daily bulk file feed – TDS bulk feed service. The Bulk Feed service will only provide the data to a Software Platform that has been linked to the related Tax Agent or Customer Accounts to enable access their transaction data.</p> <p>This linking is referred to as Software Intermediation.</p>

**Table 2. Fundamental Concepts in TDS**



**Figure 3. TDS key relationships**



The Software Platform and its users together establish links to the parties for whom tax data is to be retrieved. There needs to be a path of links from the Software Platform to the relevant customer accounts to get transaction data for those Customer accounts. This can be done through two pathways that work slightly differently:

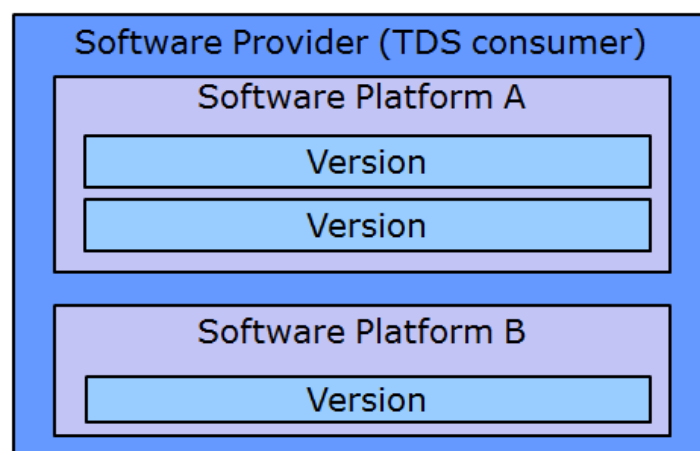
1. Within Inland Revenue, Tax agencies are already set up with links to their client lists. A software platform can be linked to the tax agency and will then get all the data for all their client lists and all related customer accounts. The intention is that permissions are then applied in the software platform to select what is visible to specific individuals. Refer to section 6 Delegation and permissions in this document.
2. Customer data where the Customer itself or a delegate such as a bookkeeper is looking at the data, and not a Tax Agency, can be subscribed to directly through their software platform, similarly to how a Tax Agent links to Customer accounts – at the Customer account level. Again permissions need to then be applied in a consistent manner inside the software platform as to which individuals have which level of access.

For either pathway the person/user establishing the link with the software platform needs to have delegated permission, through a myIR Logon, to do so by being set up as an owner or administrator for that party. Section 6 Delegation and permissions goes into more detail about the permissions to establish these relationships and Section 3.4.4 Use Case PUC202 Bulk Update of Software Provider Subscription and the [Software Intermediation Build Pack](#) go into more detail around establishing the links.

Parties consuming TDS through software onboarded with Inland Revenue are referred to as Software Providers in this document. This term is used in a broad generic sense: they might be software vendors or developers, an integrator customising software or owners of the software.

A Software Provider can have multiple Software Platforms and any such software platform that is registered and onboarded with Inland Revenue is referred to as a Software Platform and consists typically of both an SFTP site and an application to process and display the data to users.

Each software platform has at least one version and further versions may be added over time. Please see the Section 5 Onboarding for more information.



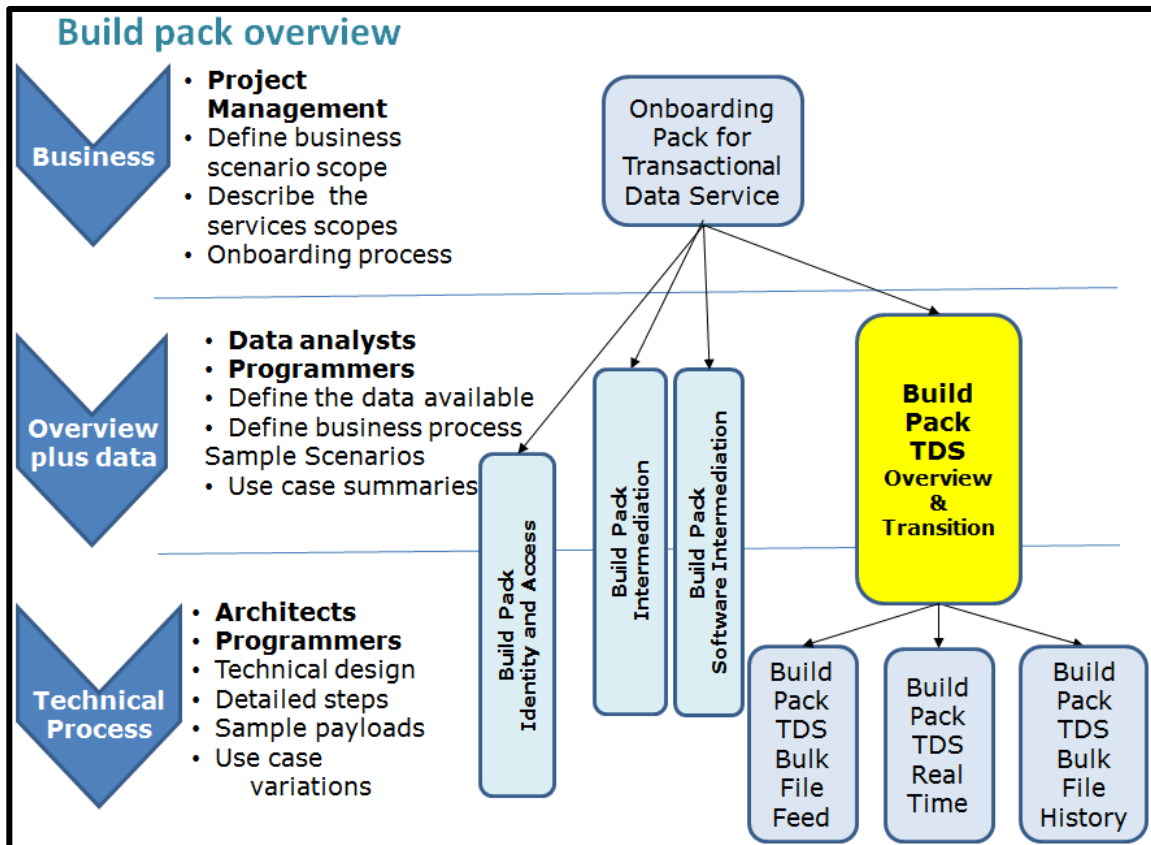
**Figure 4. Software Platforms**

## 1.5 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>

In the diagram below, this document describes the Business Service level – highlighted. Each of the blue blocks have separate build packs describing them in more detail. See Table 2 below for links to individual folders.



**Figure 5. On-boarding and Build Pack Structure for TDS**

Name	Description
TDS - Onboarding	See Section 5 Onboarding in this document as this is not yet a separate document. 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 above; instead, it is sent to Software 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.
<a href="#">TDS Bulk File Feed</a>	Describes the technical requirements and specifications, processes and sample payloads for the TDS Bulk File Feed.



Name	Description
<a href="#">TDS Real Time Build Pack</a>	Details the technical requirements and specifications, processes and sample payloads for the TDS Real Time Service.
<a href="#">TDS Bulk File History Build Pack</a>	Details the technical requirements and specifications, processes and sample payloads for the TDS Bulk File History Service.
<a href="#">Identity and Access Build Pack</a>	Details the Authentication and Authorisation mechanisms used by Inland Revenue for Gateway Services.
<a href="#">Software Intermediation Build Pack</a>	Details the technical requirements and specifications for the linking of Tax Agents/Customers to Software Providers to enable these links to be used by the Bulk File Feed and Bulk file History Service.
<a href="#">Intermediation Build Pack</a>	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.

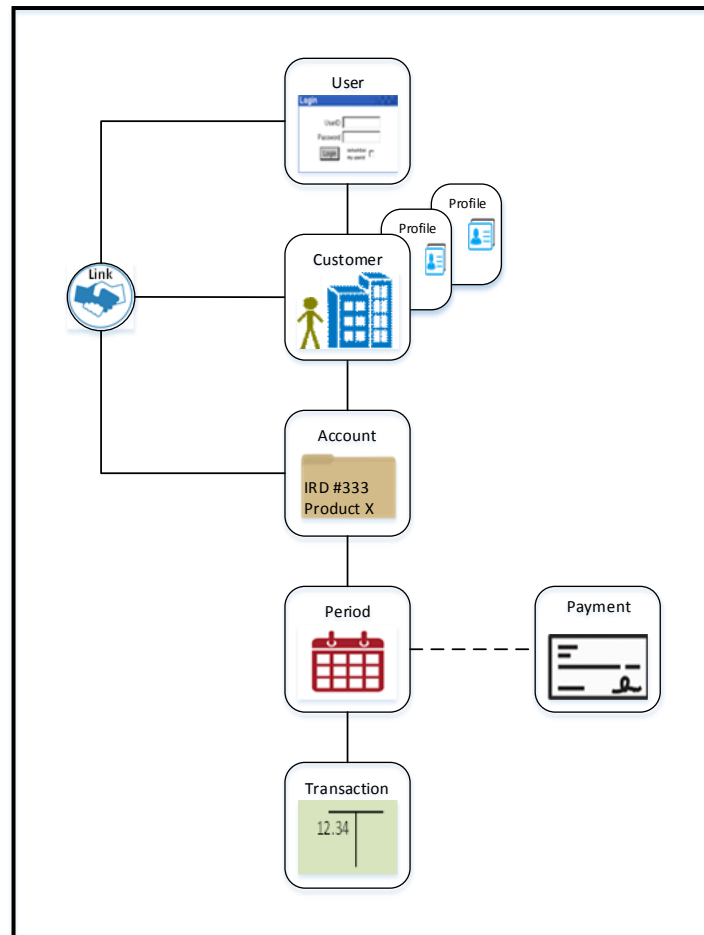
**Table 3. Related Documents Descriptions**



## 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 6. High Level representation of Data Model**

Entity	Description
<b>Customer</b>	<p>See 1.4 – “Fundamental concepts - interacting parties in TDS” – In the context of providing Transaction data Customer refers to an individual or entity with tax and/or social policy obligations and/or entitlements.</p> <p>A Customer record 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 (or only a Customer Number if they have no filing obligations)</li> <li>• May have associated User Logons, 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 IRD Numbers and 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. 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>In Inland Revenue Systems this is an actual person who has a myIR Logon. It is owned by one Customer (or Agent) but can be Linked to Accounts belonging to other Customers.</p> <p>A User cannot exist without a System Customer record (which might not be a tax entity, please see the definition in System Customer Record in 1.4 – “Fundamental concepts - interacting parties in TDS”).</p> <p>In a software provider platform a user there might not necessarily have an Inland Revenue myIR login, the provider might have their own user and permission management.</p>
<b>Account</b>	<p>This is a ledger with an Account ID which is the IRD Number plus Account Type.</p> <p>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>Links allow Intermediaries to act on behalf of the Customer. The Intermediary must be “linked to” the Customer’s account(s).</p> <p>Delegating access associates Users with Customers, Profiles and Accounts, or with Tax Agent and client lists.</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>



Entity	Description
<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. See <a href="#">Data Scenarios</a> below for an example of the data associated with the above situations.</p>

**Table 4. Data Entity Descriptions**

## 2.2 Data Items available through TDS

The following data items will be available as transactions through TDS:

Attribute	Description	Data Type	Length
<b>Account</b>			
<b>IRD Number</b>	Standard IRD Number – always 8 or 9 digits i.e. 8 digits can be padded	String	8/9
<b>Account Type</b>	The type of Account – e.g. GST, INC	String	3
<b>Profile Number</b>	This allows for multiple 'locations' for one IRD Number ie subsidiary locations for one entity eg 001,002,003	String	3
<b>Account ID</b>	The Identifier of the Account IRD number, appended with account type and profile number	String	30
<b>Filing Frequency</b>	The filing frequency for the Account – See <a href="#">Appendix B Filing Frequency Codes</a>	Char	8
<b>Commence</b>	Commencement Date of the Account	Date	8
<b>Cease</b>	Cessation Date of Account	Date	8
<b>Balance</b>	The Balance for the account in total	Currency	8
<b>Forecasted Balance</b>	The Balance for the Account including the forecasted amounts as explained below	Currency	8
<b>MaxActivity</b>	The last date/Time of Activity on Account	DateTime	8
<b>Migration</b>	The last date that data was converted into this Account. (Only included in History file)	DateTime	8

Attribute	Description	Data Type	Length
<b>Period</b>			
<i>* The Period Summary data in each weekly file where there has been no change</i>			
<b>Period *</b>	The filing period of the Account – usually the last day of the period	Date	8
<b>Filing Frequency</b>	The filing frequency for the Account/period – See <a href="#">Appendix B Filing Frequency Codes</a>	Char	8
<b>Period Begin</b>	The first day of the period	Date	8
<b>Period End</b>	The last day of the period	Date	8
<b>Filing Period</b>	Same as Period End – last day of period	Date	8
<b>Tax</b>	The amount assessed	Currency	8
<b>Penalty</b>	The amount of Penalty applied	Currency	8
<b>Penalty Forecasted</b>	<p>In the Bulk File this is the amount of <b>additional</b> Penalty forecasted for the Period since the time of the last posted Penalty transaction, as at the date the file was created plus 1 day. This is to cater for an overnight file being created to show the amount which needs to be paid if it is paid the next day when the file data is available to Tax Agents and Customers.</p> <p>In the Real Time Query this is the <b>additional</b> amount of Penalty forecasted for the Period for the date of the request, since the time of the last posted Penalty transaction.</p>	Currency	8
<b>Interest</b>	The amount of interest applied	Currency	8
<b>Interest forecasted</b>	<p>In the Bulk File this is the amount of <b>additional</b> Interest forecasted for the Period since the time of the last posted Penalty transaction, as at the date the file was created plus 1 day. This is to cater for an overnight file being created to show the amount which needs to be paid if it is paid the next day when the file data is available to Tax Agents and Customers.</p> <p>In the Real Time Query this is the <b>additional</b> amount of Interest forecasted for the Period for the date of the request, since the time of the last posted Interest transaction.</p>	Currency	8



Attribute	Description	Data Type	Length
<b>Other</b>	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
<b>Other forecasted</b>	<p>In the Bulk File this is the amount of <b>additional</b> Other forecasted for the Period since the time of the last posted Penalty transaction, as at the date the file was created plus 1 day. This is to cater for an overnight file being created to show the amount which needs to be paid if it is paid the next day when the file data is available to Tax Agents and Customers.</p> <p>In the Real Time Query this is the <b>additional</b> amount of Other forecasted for the Period for the date of the request, since the time of the last posted Other transaction.</p>	Currency	8
<b>Credit</b>	Payments or credit transfers in which have been made for this period	Currency	8
<b>Credit forecasted</b>	<p>In the Bulk File this is the amount of <b>additional</b> Credit forecasted for the Period since the time of the last posted Penalty transaction, as at the date the file was created plus 1 day. This is to cater for an overnight file being created to show the amount which needs to be paid if it is paid the next day when the file data is available to Tax Agents and Customers.</p> <p>In the Real Time Query this is the <b>additional</b> amount of Credit forecasted for the Period for the date of the request, since the time of the last posted Credit transaction.</p>	Currency	8
<b>Balance *</b>	The Balance for the period	Currency	8
<b>Forecasted Balance</b>	The Balance for the Period including the forecasted amounts	Currency	8
<b>Max Period Activity *</b>	This is 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>			
<b>Transaction ID</b>	Transaction ID of the Refund which used this Bank Account	String	30



Attribute	Description	Data Type	Length
<b>NZ Bank Standard - See <a href="#">Appendix E</a> for other Bank Standards</b>			
<b>Bank Number</b>	The Bank where the Account is held	Char	2
<b>Branch Number</b>	The branch number of the bank	String	4
<b>Account Number</b>	Number of the bank account	String	8
<b>Account Number Suffix</b>	Suffix to the bank account number	String	4
<b>Pending Payment</b>			
<b>Payment ID</b>	The unique identifier for the payment	String	30
<b>Pending Amount</b>	The amount of the payment	Currency	8
<b>Pending Date</b>	The date the payment was made pending	Date	8
<b>Transfer</b>			
<b>Account ID</b>	See Account ID under Account above. Sometimes in header parent section. e.g. 011-264-190-GST002	String	18
<b>Transfer Account ID (Other Account ID)</b>	The IRD Number for the Account to which the amount was applied or from which it was received.	String	8/9
<b>Transfer Account Type (Other Account Type)</b>	The Account Type for the Account to which the amount was applied or from which it was received.	String	3
<b>Transfer Period</b>	The period for that Account to which the amount has been applied – Period above	Date	8
<b>Transaction ID</b>	The unique identifier for the transaction in the current list of transactions	String	30
<b>Bill – Transactions are organised by Bill – each with a different due date</b>			
<b>Bill ID</b>	The Bill Number internally	String	30
<b>Bill Display</b>	The externally displayed Bill Number which is likely to be a single digit – starts as 1 and increases for each Bill within a Period		
<b>Bill Due Date</b>	The due date for the Bill	Date	8



Attribute	Description	Data Type	Length
<b>Tax</b>	The amount assessed	Currency	8
<b>Penalty</b>	The amount of Penalty applied	Currency	8
<b>Penalty Forecasted</b>	<p>In the Bulk File this is the amount of <b>additional</b> Penalty forecasted for this Bill since the time of the last posted Penalty transaction, as at the date the file was created plus 1 day. This is to cater for an overnight file being created to show the amount which needs to be paid if it is paid the next day when the file data is available to Tax Agents and Customers.</p> <p>In the Real Time Query this is the <b>additional</b> amount of Penalty forecasted for the Bill for the date of the request, since the time of the last posted Penalty transaction.</p>	Currency	8
<b>Interest</b>	The amount of interest applied	Currency	8
<b>Interest forecasted</b>	<p>In the Bulk File this is the amount of <b>additional</b> Interest forecasted for this Bill since the time of the last posted Penalty transaction, as at the date the file was created plus 1 day. This is to cater for an overnight file being created to show the amount which needs to be paid if it is paid the next day when the file data is available to Tax Agents and Customers.</p> <p>In the Real Time Query this is the <b>additional</b> amount of Interest forecasted for the Bill for the date of the request, since the time of the last posted Interest transaction.</p>	Currency	8
<b>Other</b>	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
<b>Other Forecasted</b>	<p>In the Bulk File this is the amount of <b>additional</b> Other forecasted for this Bill since the time of the last posted Penalty transaction, as at the date the file was created plus 1 day. This is to cater for an overnight file being created to show the amount which needs to be paid if it is paid the next day when the file data is available to Tax Agents and Customers.</p> <p>In the Real Time Query this is the <b>additional</b> amount of Other forecasted for</p>	Currency	8



Attribute	Description	Data Type	Length
	the Bill for the date of the request, since the time of the last posted Other transaction.		
<b>Bill Credit</b>	The amounts paid towards the Bill	Currency	8
<b>Credit forecasted</b>	<p>In the Bulk File this is the amount of <b>additional</b> Credit forecasted for this Bill since the time of the last posted Penalty transaction, as at the date the file was created plus 1 day. This is to cater for an overnight file being created to show the amount which needs to be paid if it is paid the next day when the file data is available to Tax Agents and Customers.</p> <p>In the Real Time Query this is the <b>additional</b> amount of Credit forecasted for the Bill for the date of the request, since the time of the last posted Credit transaction.</p>	Currency	8
<b>Bill Balance</b>	The Balance due on the Bill	Currency	8
<b>Forecasted Balance</b>	The Balance for the Bill including the forecasted amounts	Currency	8
<b>Transaction - Organised by Bill Number</b>			
<b>Amount</b>	The amount of the transaction	Currency	8
<b>Transaction ID</b>	The unique identifier for the transaction	String	30
<b>Trans Type</b>	The code for the Type of Transaction	String	12
<b>Posted Date</b>	The Posted Date for this transaction	DateTime	8
<b>Effective Date</b>	The Effective Date for this transaction	Date	8
<b>Link ID</b>	<p>The unique identifier for a linked transaction e.g. a transaction which has been reversed by this transaction.</p> <p>In the History File this is called newtxid as it represents the new transaction id to which the converted transactions have been aggregated</p>	String	30



Attribute	Description	Data Type	Length
<b>Retrieve Date</b>	<p>Each file in the Bulk File Feed will contain a Retrieve Date which is the date of the data it contains. The forecasted amounts will always forecast an additional day, ie being the Retrieve date + 1.</p> <p>In essence the Bulk Feed extraction process will always ensure the forecasted penalties and interest will be for the day for which the file is delivered.</p> <p>Each Real Time Request will also contain a Retrieve Date which will be the date of the request and forecasted amounts will be for that date.</p>		

**Table 5. Data available through TDS**

### 2.3 Additional Information Available

File Description	Details
<b>Software Intermediation links File</b>	<p>File included with each file set that includes both of:</p> <ul style="list-style-type: none"> <li>Which Tax Agents are linked to this Software Provider Platform</li> <li>Which Customer Accounts are linked directly to this Software Provider Platform</li> </ul>
<b>Intermediation Link File</b>	<p>File included with each file set that includes:</p> <p>Which Customer accounts (accounts of clients of a Tax Agent) are linked to the Tax Agents (that are linked to the Software Provider through Software Intermediation links)</p>
<b>Permissions File</b>	<p>File included with each file set that includes both of:</p> <ul style="list-style-type: none"> <li>The names of the myIR logons associated with linked Tax Agents that have visibility per client list</li> <li>The names of the myIR logons that have visibility per linked Customer Account</li> </ul>

**Table 6. Additional data available through TDS**

Notes:

- Not every field is available in every service. Check the [Build Pack](#) for each service to clarify the data provided with each feed.
- The data contained in the History File Bulk Feed and ad hoc request for History data is not explained in full in the data items table above. This is because some data items are very specific to the History Feed as they are related to the manner in which Tax Agent Web Services presented data. Please refer to Section 2 of the [History Bulk File Feed Build Pack](#) for full details.



## 2.4 Accounts

### In START since April 2017

FIRST Tax Type	START Account Type	Description	Notes	Amount of data available
<b>GST</b>	GST	Goods and Services tax	Already in START and will be made visible in Transaction Services.  GST will have only one return assessment transaction other than reassessments.	All periods ending 30-Apr-2014 and onwards and prior periods which were still open at the time of conversion
	GSD	GST on Goods sold in satisfaction of debt	GSD can have multiple assessment transactions from the same return type as each return can capture a separate transaction.  Therefore a period can have multiple 'Return debit' transactions.	All periods ending 28-Feb-2017 and onwards

### Being migrated to START or commencing in 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
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		
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.	



FIRST Tax Type	START Account Type	Description	Notes	Amount of data available
<b>AIL</b>	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
<b>FBT FBA FBI</b>	FBT	Fringe Benefit Tax FBA – Annual FBI–Income Year	<p>Migrating as FBT and will have 3 assessment codes and the possibility of two assessments in one period.</p> <p>The normal quarterly return will have 'Return debit' or 'Return credit'.</p> <p>The annual return will have 'Annual return debit' or 'Annual return credit'</p> <p>The income year return will have 'Income year return debit' or 'Income year return credit'</p>	All periods ending 30-Apr-2015 and onwards and prior periods which were still open at the time of conversion
<b>GMD</b>	GMD	Gaming machine duty  Problem Gambling Levy – 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
<b>PIE</b>	PIE	Portfolio investment entity tax	Only one return assessment transaction other than reassessments.	
	PRS	Payroll Subsidy	This is a subsidy for customers who use a payroll intermediary to do their PAYE. Claims are received and validated against the PAYE employer monthly schedules and paid out.	No data will be migrated. This account will start from a point in time.



FIRST Tax Type	START Account Type	Description	Notes	Amount of data available
	MPO (also known as BPA)	Multi Payment Option	<p>A new Account Type, which is entered through myIR. A schedule is uploaded with the payment and an MPO Account is created for the record of the payment and the distribution.</p> <p>When credited to the individual accounts there will be an MPO Payment Type code and description associated with the transaction.</p>	No data will be migrated. This account will start from a point in time.

**Table 7. Accounts available in START**

#### 2.4.1 Transition Data Availability

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.

## 2.5 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.

#### 2.5.1 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.



## 2.5.2 Multiple Assessment Transactions

### 2.5.2.1 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).

### 2.5.2.2 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.

### 2.5.2.3 Withholding Tax

RWT, NRT and IPS Withholding Taxes can have an annual reconciliation assessment and other regular assessments that 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.

## 2.5.3 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.

### 2.5.4 GST Credit Assessments

START uses Bills (see above) to identify amounts which have different due dates. Each Bill can contain values for Assessment, Penalty, Interest, Other and Credit. For GST Periods assessed prior to Release 2 in April 2018 where there is a credit assessment it will show in the Bill as Credit rather than Assessment. For periods from Release 2 a credit assessment will show as an Assessment transaction in the Bill. See Appendix C for Transaction Codes.

### 2.5.5 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. This means payments are not always recorded as transactions until after the assessment transaction is 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.

### 2.5.6 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.



### 2.5.7 Rounding

Any penalty and interest calculation provided has been calculated using “bankers” or “Gaussian” rounding.

### 2.5.8 Transaction Items not sent in Tax Agent Web Services

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

### 2.5.9 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 posted 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.

## 2.6 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 for the Account Types identified above and will make every effort to ensure it is accurate, timely, consistent and complete. Inland Revenue will be transparent about their activity with Customers and will ensure Software 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 Bulk File data 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 Software 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 Software 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 that is a secondary check. If a 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, TDS Account Summaries includes the migration date for that tax type as an additional attribute in the History File. This date means 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 in the Bulk History File as a nested new TXID element. These represent the same historical transaction in a different format but should be able to be reconciled. See Section 2.9.4 below for an example.



- 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 IR, will make contact. 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, eg*

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 8. 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 | • Remission |
| • OUM Over Time          | • Payment   |
| • Reassessment           | • FBT       |
| • Default Assessment     | • GSD       |
| • Transfer               | • RWT       |
| • Writeoff               | • DWT       |



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

The conversion of Inland Revenue data in February 2017 (GST only) and April 2018 (as per Table 6 above) can cause some differences between the Tax Agent Web Service and TDS data. Potentially significant 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. The Bulk History File will reflect this by identifying the START Transaction ID in which these amounts have been aggregated.

### 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 that will not be sequential. Software Providers may have used this sequential numbering to check they are not missing any data from Inland Revenue. Inland Revenue cannot accommodate this 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. 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 Software Providers to support reconciliation between the Tax Agent Web Service data and TDS data.

### 2.9.4 Conversion Scenario

This spreadsheet below 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 transaction Types is in Appendix D.

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



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### 3 Use cases

Transaction Data Services provides data for an overall business process that is controlled by the Software Provider software and the user of that software, rather than Inland Revenue.

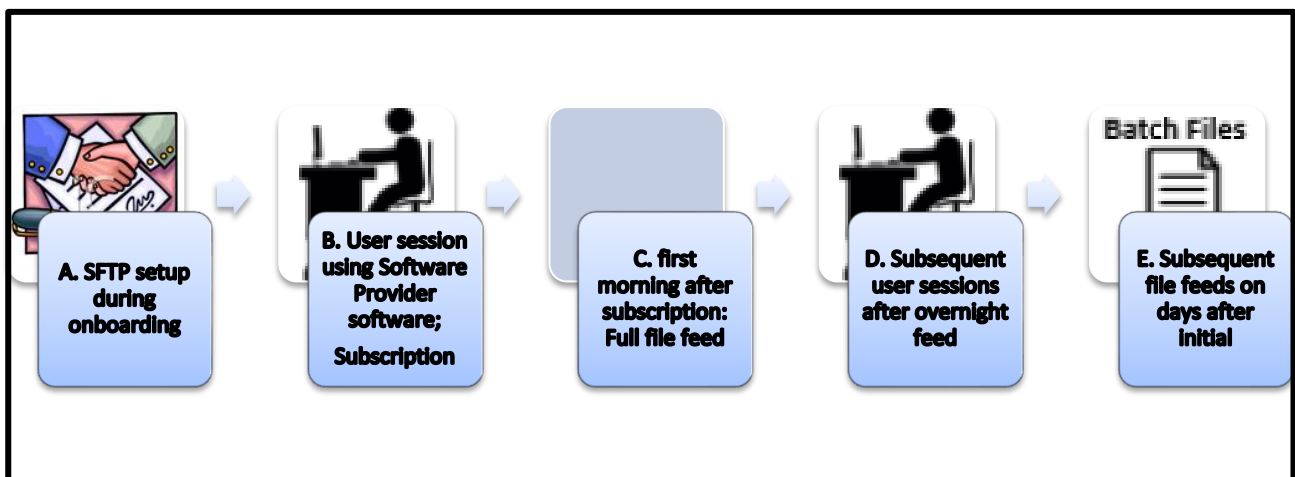
This section introduces the overall typical sequence of events, then the use cases. The next section strings those together into sample processes and scenarios.

#### 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 7. 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 onboarding of a Software Provider wishing to consume the TDS Bulk File Feed. For more on stage A refer to Onboarding in Section 5 of this document.
- **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 Software Provider, a link is required between the Software Provider and their Tax Agents or their direct Customers' Accounts. This link is created via the Software Intermediation Service initiated by the customer via the Software Provider software. Full details of the Software Intermediation service are provided in the [Software Intermediation Build Pack](#). Once linked, the next Bulk File will include details for this Client'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 into what the user can see by the Software Provider software. They can still augment that with Real Time calls.

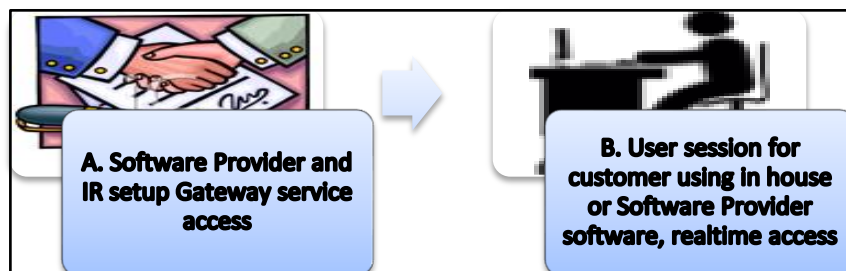


- **Stage E:** This is an incremental file, containing data that has changed since the previous file was provided. Again, the Software Provider software will incorporate that for the user to have access to on their next login.

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 small data set only and does not subscribe to the bulk file feed. This can only be supported by Inland Revenue for small datasets. A slightly simplified onboarding stage will precede access to the TDS Real Time Service in this case. See sample process scenario III below – Section 4.2.3.



**Figure 8. Sequence of Real Time access only**

- **Stage A:** This is the initial onboarding of a Software Provider that does not need to or wish to consume the TDS Bulk File Feed. This only requires the ability to call Gateway Services. For more on onboarding refer to Section 5 of this document.
- **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 Software Providers.

This list is neither exhaustive nor meant to represent every combination of process that the Tax Agent, Customer or Software 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 diagrams

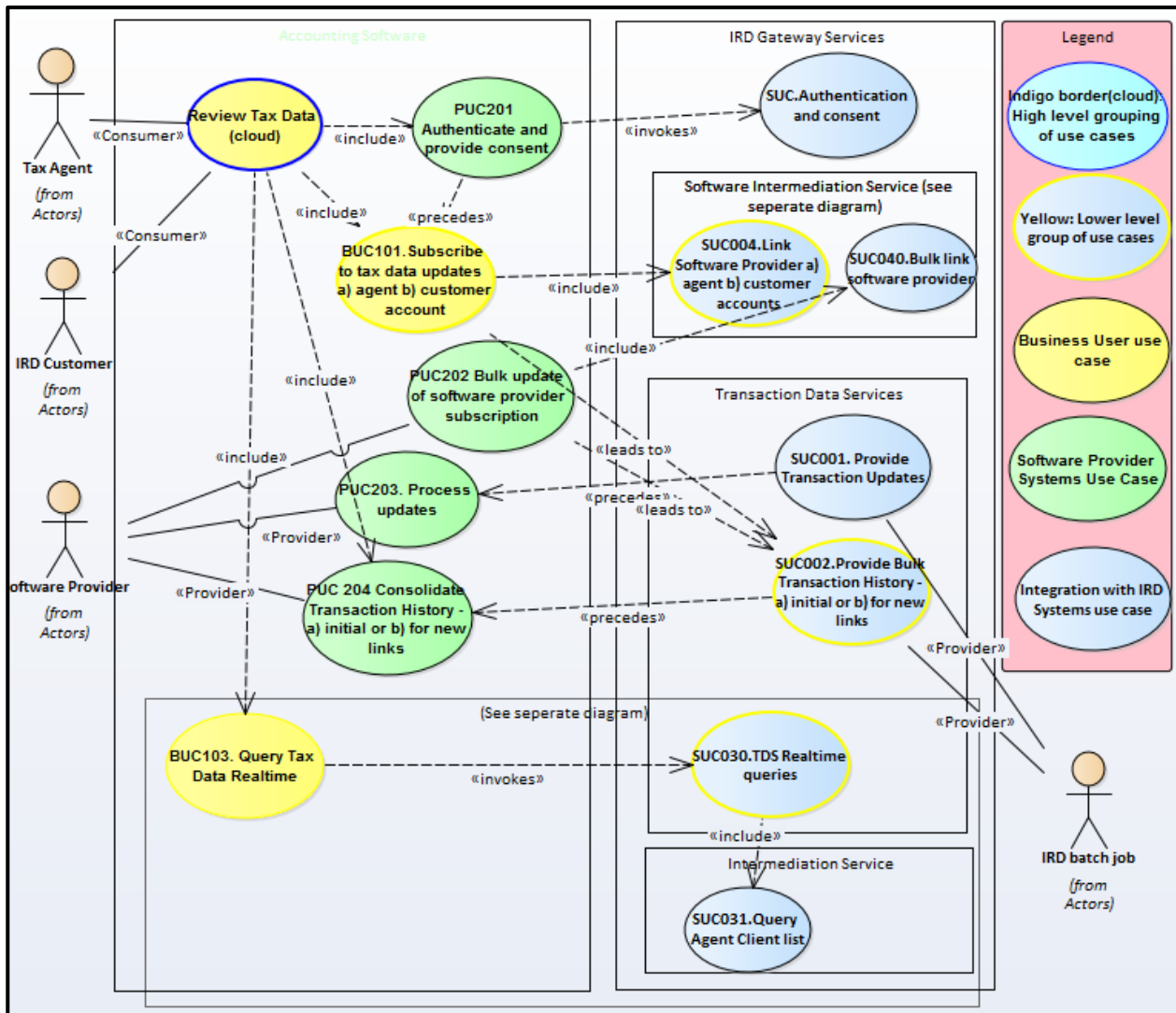
Due to the volume of use cases the use case diagram has been split across three diagrams with the first one showing the big picture and the subsequent two drilling into some more detail. After the diagrams there is a table listing all of the use cases and where they are documented.

Use cases have been classified into the following types:

Use case Group	Description	Colour
<b>Tax Agent /Customer (Business)</b>	Business Use cases specific to the Customer / Tax Agent point of view	Yellow
<b>Software Provider</b>	Some systems use cases on the Software Provider side are not user driven and broader than the integration with IR	Green
<b>Software Provider plus Tax Agent/Customer (business)</b>	Use cases that are a mix of events specific to the Customer / Tax Agent point of view and being Software Provider driven	Light Green
<b>Systems use cases</b>	The corresponding technical steps inside the above use cases which are required to integrate with Inland Revenue	Blue

**Table 9. Use Case Types**

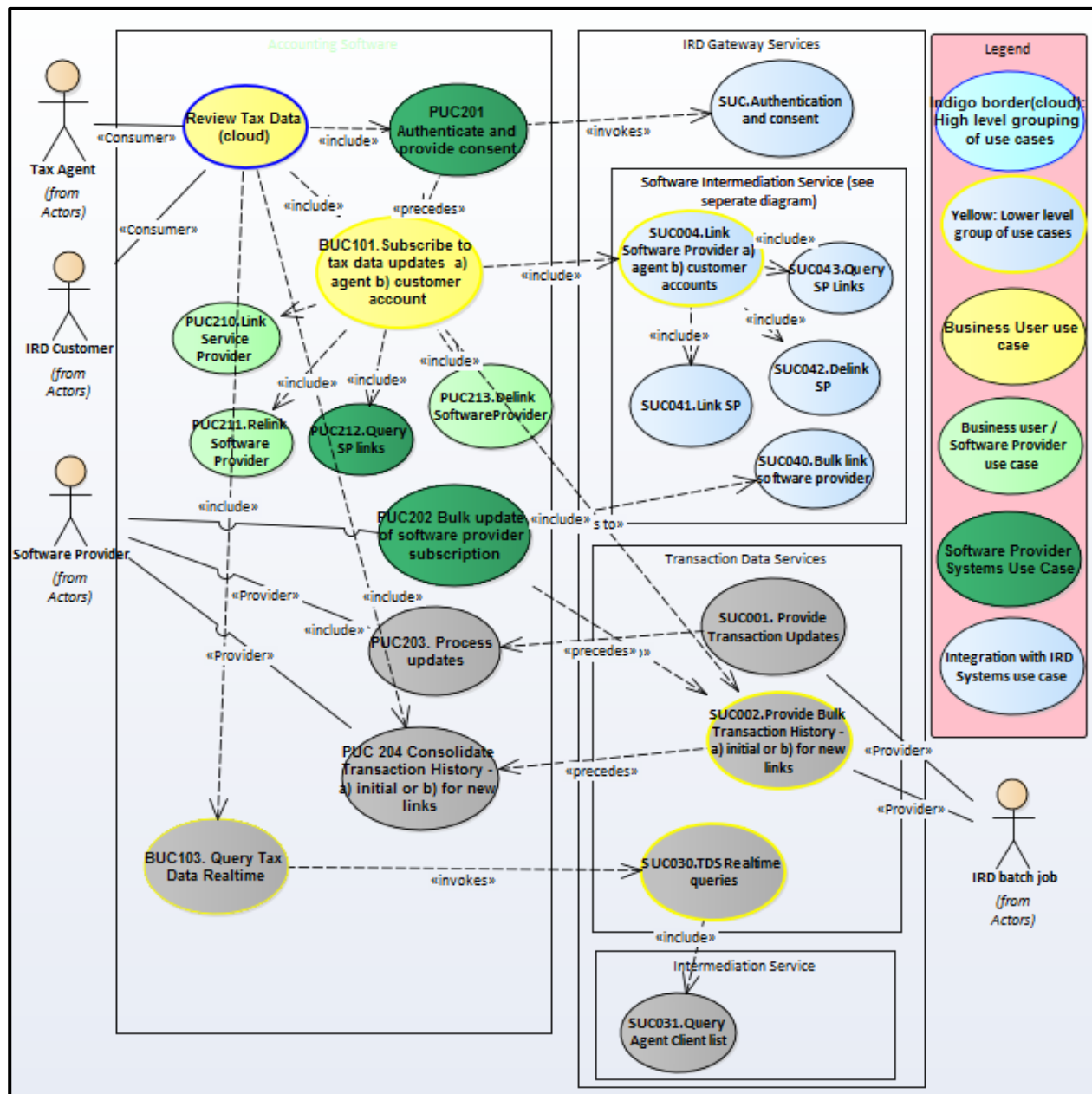
### 3.3.2 Use Case Diagram - Summary



**Figure 9. Use Case Diagram – Summary**

Navigate to [Section 3.3.5 Use Case Listing](#).

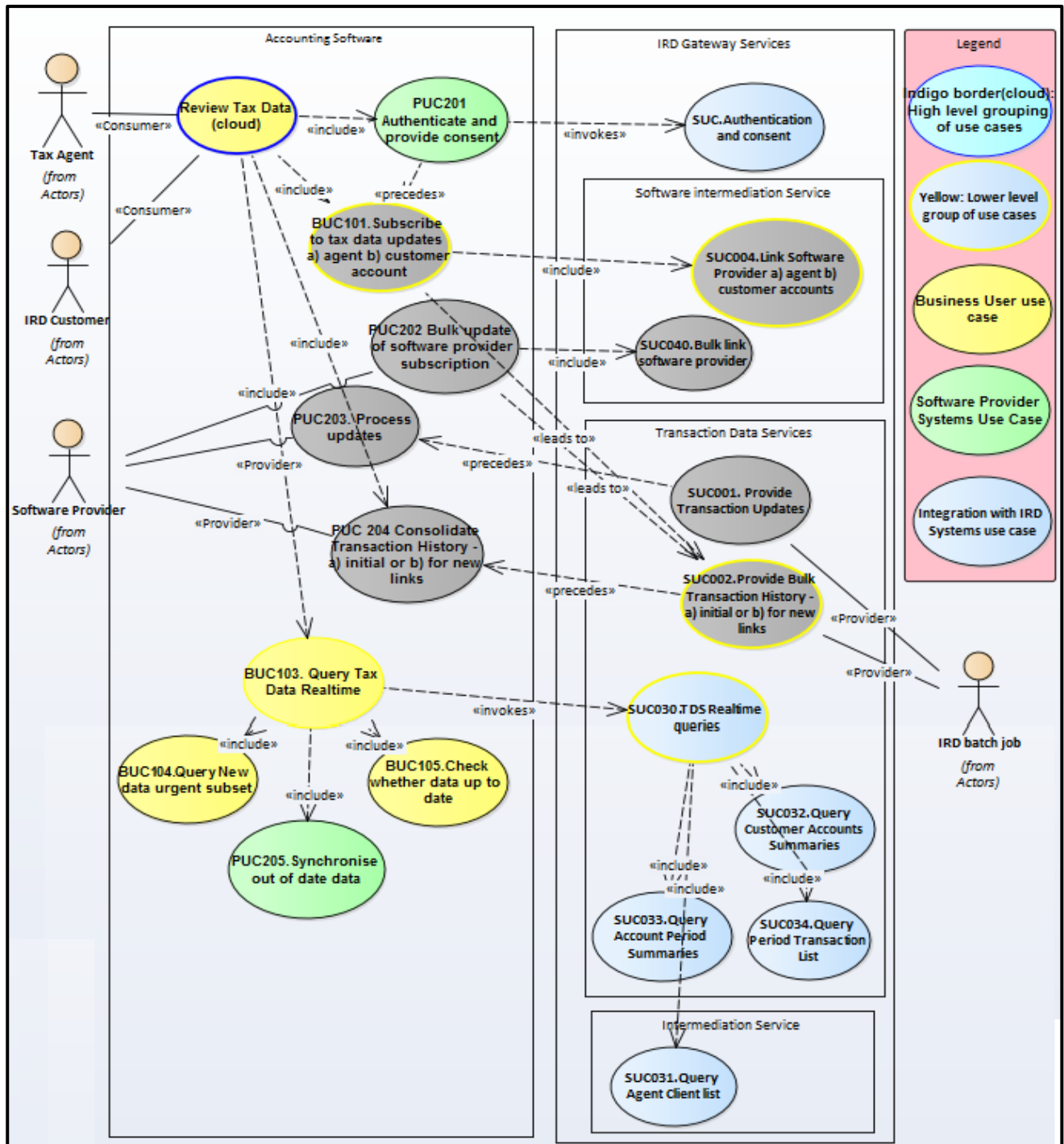
### 3.3.3 Use case diagram – Software Provider linking focus



**Figure 10. Use Case Diagram – Software Provider linking focus**

Navigate to [Section 3.3.5 Use Case Listing](#)

### 3.3.4 Use case diagram – Real Time focus



**Figure 11. Use Case Diagram – Real Time focus**

Navigate to [3.3.5 Use Case Listing](#)

### 3.3.5 Use Case Listing

The full list of Use cases have been classified and documented as follows:



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 a) Agent b) Customer account	This document, see 0
			BUC103 Query Tax Data real-time	This document, see 3.4.12
			BUC104 Query New data urgent subset	This document, see 3.4.13
			BUC105 Check whether data up to date	This document, see 3.4.14
<b>Software Provider</b>	Some systems use cases on the Software Provider side are not user driven and broader than the integration with IR	Green	PUC201 Authenticate and provide and consent	This document, see 3.4.1
			PUC202 Bulk update of Software Provider subscription	This document, see 3.4.4
			PUC203 Process updates	This document, see 3.4.9
			PUC204 Consolidate Transaction History - a) initial or b) for new link	This document, see 3.4.10
			PUC205 synchronise out of date data	This document, see 3.4.11
			PUC210.Link Software Provider	This document, see 0
			PUC211.Relink Software Provider	This document, see 3.4.6
			PUC212.Query Software Provider Links	This document, see 3.4.7
			PUC213.Delink Software Provider	This document, see 3.4.8
<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
			SUC004.Link Software Provider a) Agent b) Customer Account	Software Intermediation Build Pack
			SUC040.Bulk Software Provider Link	This document, see PUC202 (3.4.4) and section 5.3 Initial Bulk Linking



Use case Group	Description	Colour	Use Case	Build Pack
				under section 5 Onboarding
			SUC001 Provide Transaction Updates	TDS Bulk File Build Pack
			SUC002 Provide Bulk Transaction History - a) initial or b) for new link	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, operation Account.RetrieveAccountSummaries
			SUC033 Query Account Period Summaries	TDS Real-time Build Pack, operation Account.RetrievePeriodSummaries
			SUC034 Query Period Transaction List	TDS Real-time Build Pack, operation Transactions.RetrieveList
			SUC041.Link Software Provider	Software Intermediation Build Pack, operation SoftwareIntermediation.Link
			SUC042.Delink Software Provider	Software Intermediation Build Pack, operation SoftwareIntermediation.Delink
			SUC043.Query Software Provider Links	Software Intermediation Build Pack, operation SoftwareIntermediation.RetrieveClientList

**Table 10. Use Cases and related documentation**



### 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>	Software Provider 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 Software Provider software and is authenticated, authorised and logged in to that software. User has myIR Logon with delegated access to related tax accounts. This might be as employee of the entity or an employee of a Tax Agency.</p> <p>Software Provider software is Onboarded and therefore authorised to communicate with TDS (<a href="#">See Onboarding Pack for TDS</a>).</p> <p>This use case assumes the user has taken an action in the Software Provider software that indicates they wish to receive tax data that they have access to at IR.</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 Software Provider software.
<b>Constraints</b>	The Software Provider has explicit consent from the user for receiving data for their clients.
<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 Software Provider software 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 - Inland Revenue responds to user with appropriate message.</li> <li>7. The User name and/or password are incorrect - Inland Revenue responds to user with appropriate message and records the access attempt.</li> <li>8. The user is valid, however does not 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) – Inland Revenue 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 9 digits, fails modulus 11 checks - Inland Revenue fails request, records failure and responds to user with appropriate message</li> </ol>
Alternative Flows	No alternatives

**Table 11. Use case PUC201 Authenticate and provide consent**

Navigate back to [3.3.1 Use Case Diagrams](#)

Navigate back to [3.3.5 Use Case Listing](#)



### 3.4.2 Use Case BUC101 Subscribe to tax data updates - a) Tax Agent

<b>BUC101- Subscribe to tax data updates – a) Tax Agent</b>	
<b>User/Actors</b>	Tax Agent
<b>Secondary Actors</b>	Software Provider software Transaction Data Services
<b>Description</b>	<p>The user goal is to subscribe to bulk transaction updates for their Clients.</p> <p>For Software Providers software: It is expected that in the initial uptake of the Bulk File Feed or History Bulk File Feed all Software Providers will provide Inland Revenue with a list of users to invoke PUC202 - Bulk Update of Software 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. For accounting software the Bulk File logic and timing might not be applicable – an SFTP point (“Software Provider”) will need to be set up to consume bulk file and/or history bulk and that will be associated with one or a few Customers only.</p> <p>A Customer/Organisation who has been approved by Inland Revenue as a Tax Agent can choose whether to receive data as a Customer (Section 3.4.3) or as a Tax Agency (this use case). The file format received will depend on this decision. TDS does not require a Customer to be set up as a Tax Agent in order to get data.</p>
<b>Inland Revenue systems involved</b>	Inland Revenue’s Gateway Software Intermediation Service, Identity and Access Service
<b>Pre-Conditions</b>	<p>User is licensed and has access to Software Provider software and is authenticated, authorised and logged in to that software.</p> <p>User has myIR Logon with current authorised admin or owner access to the Tax Agency.</p> <p>Software Provider software is Onboarded and therefore authorised to communicate with TDS – See Section 5 of this document.</p>
<b>Triggers</b>	<p>The user takes an action in the Software Provider software that indicates they wish to have the tax data that they have access to at Inland Revenue pushed regularly to the Software Provider software they use.</p> <p>Depending on how the Software Provider software is structured this might be on first logging in, on first requesting Inland Revenue data, or an explicit request to have updates happen in the background.</p> <p>Whichever way this is done, the Software Provider is expected to have explicit consent from the user for subscribing to updates.</p>


**BUC101- Subscribe to tax data updates – a) Tax Agent**

<b>Constraints</b>	<p>The request must be sent using user's Software Provider 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. That login token must be available to the Software Provider software. If that login has timed out it might need to be repeated. An unexpired refresh token could be used to get a new access token.</p> <p>The party whose data is to be subscribed to needs to be identified – one the OAuth2 token user has at least administrator delegated access to: User must be authorised at Inland Revenue myIR as a delegate with Owner or Administrator permissions on that Tax Agency.</p>
<b>Post-Conditions</b>	<p>A subscription link will be in place between the Software Provider software (represented by an SFTP site) and the Tax Agency.</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 Software Provider software is receiving from Inland Revenue daily.</p> <p>This link will also cause a one off Bulk History File to be sent to the Software Provider SFTP site - <a href="#">Bulk History File Build Pack</a>.</p> <p>This content will be assimilated by the Software Provider software so the user on subsequent sessions using the Software Provider software will see recent changes and new transactions reflected.</p>
<b>Use Case Scenarios</b>	
1. Normal Flow	<p>For specific use cases see:</p> <p>PUC210.Link Software Provider</p> <p>PUC211.Relink Software Provider</p> <p>PUC212.Query Software Provider Links</p> <p>PUC213.Delink Software Provider</p> <p>See the systems use case in <a href="#">Software Intermediation Build Pack</a> for the single technical step of interacting with Inland Revenue to create or maintain the link.</p> <p>The steps before and after that depend on the Software Provider software; they are summarised in the preconditions and post conditions above.</p>
2. Exception Flows	<p>The variations depend on Software Provider 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 that all Software Providers, in the initial uptake of the bulk feed or history bulk feed, provide Inland Revenue with a list of users prior to the first full file feeds – see PUC202 - Bulk Update of Software Provider Subscription – below and the onboarding section of this document – Section 5.</p>

**Table 12. BUC101 Subscribe to tax data updates – a) Tax Agent**

### 3.4.3 Use Case BUC101 Subscribe to tax data updates – b) Customer

<b>BUC101- Subscribe to tax data updates – b) Customer</b>	
<b>User/Actors</b>	Customer
<b>Secondary Actors</b>	Software Provider Software Transaction Data Services
<b>Description</b>	<p>The user goal is to subscribe to bulk transaction updates for their Organisation.</p> <p>For Software Provider software: It is expected that in the initial uptake of the Bulk File Feed or History Bulk File Feed all Software Providers will provide Inland Revenue with a list of users to invoke PUC202 - Bulk Update of Software Provider Subscription (included below) - in advance of the first full file feeds.</p> <p>This use case is for links not established in that initial phase. For accounting software the Bulk File logic and timing might not be applicable – an SFTP point (“Software Provider”) will need to be set up to consume bulk file and/or history bulk and that will be associated with one or a few Customers only.</p> <p>A Customer/Organisation who has been approved by Inland Revenue as a Tax Agent can choose whether to receive data as a Customer (This use case) or as a Tax Agency (Section 3.4.2). The file format received will depend on this decision. TDS does not require a Customer to be set up as a Tax Agent in order to get data.</p>
<b>Inland Revenue systems involved</b>	Inland Revenue’s Gateway Software Intermediation Service, Identity and Access Service
<b>Pre-Conditions</b>	<p>User is licensed and has access to Software Provider software and is authenticated, authorised and logged in to that software.</p> <p>User has myIR Logon with current authorised access to relevant tax accounts. This might be as employee of the entity.</p> <p>Software Provider software is Onboarded and therefore authorised to communicate with TDS – see Section 5 of this document.</p>
<b>Triggers and Constraints</b>	<p>The user takes an action in the Software Provider Software that indicates they wish to have the tax data that they have access to at Inland Revenue pushed regularly to the Software Provider software they use.</p> <p>Depending on how the Software Provider software is structured this might be on first logging in, on first requesting Inland Revenue data, or an explicit request to have updates happen in the background.</p> <p>Whichever way this is done, the Software Provider is expected to have explicit consent from the user for subscribing to updates.</p>


**BUC101- Subscribe to tax data updates – b) Customer**

<b>Constraints</b>	<p>The request must be sent using user's Software Provider 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. That login token must be available to the Software Provider software. If that login has timed out it might need to be repeated. An unexpired refresh token could be used to get a new access token.</p> <p>The party whose data is to be subscribed to needs to be identified – one the OAuth2 token user has at least administrator delegate access to: User must be authorised at Inland Revenue myIR as delegate with Owner or Administrator permissions on 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 Software Provider software and 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 Software Provider software is receiving from Inland Revenue daily.</p> <p>This link will also cause a one off Bulk History File to be sent to the Software Provider SFTP site - <a href="#">Bulk History File Build Pack</a>.</p> <p>This content will be assimilated by the Software Provider software so the user on subsequent sessions using the Software Provider software will see recent changes and new transactions reflected.</p>
<b>Use Case Scenarios</b>	
1. Normal Flow	<p>For specific use cases see:</p> <p>PUC210.Link Software Provider</p> <p>PUC211.Relink Software Provider</p> <p>PUC212.Query Software Provider Links</p> <p>PUC213.Delink Software Provider</p> <p>See the systems use case in <a href="#">Software Intermediation Build Pack</a> for the single technical step of interacting with Inland Revenue to create or maintain the link.</p> <p>The steps before and after that depend on the Software Provider software; they are summarised in the preconditions and post conditions above.</p>
2. Exception Flows	<p>The variations depend on Software Provider 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 that all Software Providers, in the initial uptake of the bulk feed or history bulk feed, provide Inland Revenue with a list of users prior to the first full file feeds – see PUC202 - Bulk Update of Software Provider Subscription – below and the onboarding section of this document – Section 5.</p>

**Table 13. BUC101 Subscribe to tax data updates - b) Customer**

### 3.4.4 Use Case PUC202 Bulk Update of Software Provider Subscription

Also 'SUC Bulk Link Software Provider'

Note: This is a Transition Use case for the one off purpose of loading Links between Software 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 Software Provider Subscription	
<b>User/Actors</b>	Software Provider software
<b>Secondary Actor</b>	START
<b>Description</b>	<p>The goal of the Software Provider software is to update multiple Inland Revenue links at once between Software Provider and Tax Agent or Software Provider and Customer.</p> <p><i>Note: This is expected to be a one-off service at transition.</i></p>
<b>Inland Revenue systems</b>	START
<b>Pre-Conditions</b>	<p>Software Provider software is Onboarded and therefore authorised to communicate with TDS (<a href="#">See Onboarding in Section 5 of this document</a>).</p> <p>It is expected that all Software 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 Software Provider has explicit consent from the Tax Agent or Customer to create a link between them.</p>
<b>Triggers</b>	File sent from Software Provider of the IRD Numbers of all their Tax Agents and direct Customers to be linked. See <a href="#">Software Intermediation Build Pack</a> for details.
<b>Constraints</b>	This bulk linking will happens once only during each group of Account transitions to the new Inland Revenue systems.
<b>Post-Conditions</b>	A subscription link will be in place between the Software Provider and the Tax Agencies or Customers using their software.
Use Case Scenarios	
1. Normal Flow	<ol style="list-style-type: none"> <li>Software Provider software provides Inland Revenue with Customer Account and/or Tax Agent list to be uploaded. See section 5.3 Initial Bulk Linking for file format and exchange.</li> <li>Inland Revenue uploads file and creates link between Software Provider software and Customer/Tax Agent (SUC040 Bulk Link Software Providers)</li> <li>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 Software Provider concerned.
3. Alternatives	<p>No alternatives for initial Software Provider transition.</p> <p>For additional users linked later the web service will be used – see BUC101.</p>

**Table 14. PUC202 Bulk Update of Software Provider Subscription**



### 3.4.5 Use Case PUC210 Link Provider

PUC210 Link Software Provider	
<b>User/Actors</b>	Software Platform
<b>Secondary Actor</b>	User giving permission for linking their tax entity or tax agency
<b>Description</b>	The goal of the Software Provider software is to establish an Inland Revenue link from Software Provider in order to subscribe to daily bulk updates for <b>either Tax Agent or Customer Accounts</b> . (See BUC101 a) and b) above (3.4.2) for the difference.)
<b>Inland Revenue systems</b>	START
<b>Pre-Conditions</b>	<p>Software Provider software is Onboarded and therefore authorised to communicate with TDS. See Section 5 of this document.</p> <p>It is expected that all Software Providers that are part of the initial uptake of the bulk feed or history bulk feed provide Inland Revenue with a list of Tax Agents and or Customer Accounts for their users to link in advance of the first full file feeds (PUC 202 - Section 3.4.4). This use case is for subsequent linking and link maintenance afterwards.</p> <p>It is expected that the Software Provider has explicit consent from the Tax Agent or Customer to create a link between them.</p>
<b>Triggers</b>	User decision to use a Software Platform in a way that justifies bulk updates and therefore a Software Intermediation link from the Software Platform to their Tax Agent or Customer Accounts
<b>Constraints</b>	User must be set up in eServices with owner or administrator permission for the entity they are linking
<b>Post-Conditions</b>	A subscription link will be in place between the Software Provider and the Tax Agency or Customer using their software.
Use Case Scenarios	
1. Normal Flow	<ol style="list-style-type: none"> <li>1. User of a Software Platform representing the Tax Agent or Customer signs onto Software Provider software and navigates to use Inland Revenue Gateway Services.</li> <li>2. Software Provider software user is given an independent browser session for the user to log onto the Inland Revenue site.</li> <li>3. At the end of this logon sequence an OAuth token is returned for use in further calls to the Gateway Services. See the <a href="#">Identity and Access Build Pack</a> for more information.</li> <li>4. The Software Provider software uses this token in a call to the Inland Revenue Software Intermediation Gateway Service <b>Link</b> Operation to request the creation of a link.</li> <li>5. The Software Platform and user receive confirmation the link has been created.</li> </ol> <p>See SUC041.Link Software Provider (<a href="#">Software Intermediation Build Pack</a>, operation SoftwareIntermediation.Link)</p>





2. Exception Flows	See SUC041.Link Software Provider (Software Intermediation Build Pack, operation SoftwareIntermediation.Link) Operation can be repeated and will not establish a new link if link exists already, unless if it is deleted first. This is to avoid unneeded full bulk file generation which happens the day after a new link is created. See relink use case for triggering full file creation.
3. Alternatives	Only alternative is for initial Software Provider transition to use bulk linking (Section 3.4.4 above)

**Table 15. PUC210 Link Software Provider**

### 3.4.6 Use Case PUC211 Relink Software Provider

<b>PUC211 Relink Software Provider</b>	
<b>User/Actors</b>	Software Platform or user
<b>Secondary Actor</b>	
<b>Description</b>	<p>A new link from a Software Platform and a Tax Agent or Customer Account results in a full dump of all related Transaction data in the overnight bulk file feed. This might be required at times by a Software Provider, but to ensure it doesn't happen accidentally and clog up both systems, it needs to be explicitly triggered.</p> <p>In order to explicitly relink a Software Platform to a Tax Agent or Customer Account it has to be Delinked first and then Linked again.</p> <p><i>Note: When a delink and relink occurs a full History File will also be sent via SFTP – See <a href="#">Bulk History Feed Build Pack</a></i></p> <p>This use case might be invoked if a Platform or user realises a lot of data has been lost or corrupted and wishes to pull the full set from Inland Revenue again.</p> <p>Can apply to <b>either Tax Agent or Customer Accounts</b>. (See BUC101 a) and b) above (3.4.2) for the difference.)</p>
<b>Inland Revenue systems</b>	START
<b>Pre-Conditions</b>	<p>This relates to a Software Platform that is already linked to a Tax Agent or Customer Account.</p> <p>Please see the pre-conditions on the individual use cases corresponding to the Normal flow steps</p>
<b>Triggers</b>	This use case might be invoked if a Platform or user realises a lot of data has been lost or corrupted and wishes to pull the full set from Inland Revenue again.
<b>Constraints</b>	Please see the constraints on the individual use cases corresponding to the Normal flow steps



PUC211 Relink Software Provider	
<b>Post-Conditions</b>	A new link from a Software Platform and a Tax Agent or Customer Account is in place and results in a full dump of all related Transaction data in the overnight bulk file feed.
<b>Use Case Scenarios</b>	
1. Normal Flow	1. (Optional) See SUC043.Query Software Provider Links ( <a href="#">Software Intermediation Build Pack</a> , operation SoftwareIntermediation.RetrieveClientList) 2. See SUC042.Delink Software Provider (Software Intermediation Build Pack, operation SoftwareIntermediation.Delink) 3. See SUC041.Link Software Provider (Software Intermediation Build Pack, operation SoftwareIntermediation.Link) 4. Use case ends
2. Exception Flows	Please see the related steps and their individual use cases
3. Alternatives	None.

**Table 16. PUC211 Relink Software Provider**

#### 3.4.7 Use Case PUC212 Query Software Provider Links

PUC212 Query Software Provider Links	
<b>User/Actors</b>	Administrators or administrative batch jobs
<b>Secondary Actor</b>	
<b>Description</b>	<p>A software provider needs the ability to see what Tax Agents and Customer Accounts are currently linked to its Software Platform(s) for bulk updates in order to maintain this list as its user base evolves and thereby keep the bulk data to be processed relevant. <b>Includes both links to Tax Agent and Customer Accounts.</b> (See BUC101 a) and b) above (3.4.2) for the difference.)</p> <p>There is no specific end user involved in this type of maintenance and Inland Revenue has created user delegation on the Software Platform record that can be used as security for this operation to prevent it being misused by a third party (especially for Software Platforms that are desktop endpoint consumers and don't get validated by a TLS certificate). myIR portal can be used to add or modify additional administrative myIR Logons for this purpose and for Delinking. Please refer to Section 6 Delegation and permissions for more information</p> <p>There is no Gateway Service operation to get a list of all Software Platforms a Tax Agent or Customer Account is linked to. Inland Revenue is looking at making this information available on myIR for scenarios where erstwhile users of s Software Platform can confirm they have been delinked after abandoning their usage of a Software Platform.</p>



<b>PUC212 Query Software Provider Links</b>	
<b><i>Inland Revenue systems</i></b>	START
<b><i>Pre-Conditions</i></b>	<p>An onboarded Software Platform</p> <p>A known administrative myIR Logon delegated to act on it with the user at hand or a Refresh token sequence to represent the user.</p>
<b><i>Triggers</i></b>	<p>Request from administrator or administrative batch job at Software Provider to get an up to date list of Software Intermediation Links for the Software Platform.</p> <p>Note this information is supplied daily in the TDS bulk feed and therefore the real time request is more likely to be needed only when administrative changes are being made.</p>
<b><i>Constraints</i></b>	
<b><i>Post-Conditions</i></b>	An up to date list of Software Intermediation Links to a Software Provider has been supplied and processed.
<b>Use Case Scenarios</b>	
<b><i>1. Normal Flow</i></b>	<ol style="list-style-type: none"> <li>1. Administrator logs into Inland Revenue to get an OAuth token OR Administrative batch job uses refresh tokens to keep a long running session going and get an OAuth access token therefore.</li> <li>2. Token is used in service call. See SUC043.Query Software Provider Links (<a href="#">Software Intermediation Build Pack</a>, operation SoftwareIntermediation.RetrieveClientList)</li> <li>3. Administrator or administrative batch job consolidates response data with Software Provider list of active users and identifies missing or superfluous links</li> <li>4. Administrator or administrative batch job calls Delink for undesired Tax Agent or Customer Account data updates where related users are no longer using the platform.</li> <li>5. If required links are missing Software Platform flags it for attention of end user with when next logged in to login with their myIR Logon and allow the linking to be done.</li> <li>6. Use case ends</li> </ol>
<b><i>2. Exception Flows</i></b>	<p>See SUC043.Query Software Provider Links</p> <ul style="list-style-type: none"> <li>• (Software Intermediation Build Pack, operation SoftwareIntermediation.RetrieveClientList)</li> </ul>
<b><i>3. Alternatives</i></b>	This information is supplied daily in the TDS bulk feed

**Table 17. PUC212 Query Software Provider Links**



### 3.4.8 Use Case PUC213 Delink Software Provider

<b>PUC213 Delink Software Provider</b>	
<b>User/Actors</b>	Administrators or administrative batch jobs
<b>Secondary Actor</b>	
<b>Description</b>	<p>A software provider needs the ability to unlink its Software Platform from Tax Agents and Customer Accounts currently linked to its Software Platform(s) for bulk updates in order to keep the bulk data to be processed relevant as its users depart.</p> <p>There is expected to often be no specific end user involved in this type of maintenance and Inland Revenue has created user delegation on the Software Platform record that can be used as security for this operation to prevent it being misused by a third party (especially for Software Platforms that are desktop endpoint consumers and don't get validated by a TLS certificate). myIR portal can be used to add or modify additional administrative myIR Logons for this purpose and for retrieving a list of current links. Please refer to Section 6 Delegation and permissions for more information</p> <p>Applies to either a link to a <b>Tax Agent or to a Customer Account</b>. (See BUC101 a) and b) above (3.4.2) for the difference.)</p>
<b>Inland Revenue systems</b>	START
<b>Pre-Conditions</b>	<p>An onboarded Software Platform</p> <p>A known administrative myIR Logon delegated to act on it with the user at hand or a Refresh token sequence to represent the user.</p>
<b>Triggers</b>	Calculation from administrator or administrative batch job at Software Provider that a specific Tax Agent or Customer Account is no longer in active use on the Software Platform and therefore the Software Intermediation link from the Software Platform to it needs to be removed, i.e. it needs to be delinked.
<b>Constraints</b>	
<b>Post-Conditions</b>	The Software Intermediation link from the Software Platform to the Tax Agent or Customer Account has been removed. Bulk feeds will no longer contain any related data.
<b>Use Case Scenarios</b>	
1. Normal Flow	<ol style="list-style-type: none"> <li>1. Trigger identifies need to delink a Tax Agent or Customer Account</li> <li>2. Administrator logs into Inland Revenue to get an OAuth token OR Administrative batch job uses refresh tokens to keep a long running session going and get an OAuth access token therefore.</li> <li>3. Token is used in service call. Delink operation invoked - See SUC042.Delink Software Provider (<a href="#">Software Intermediation</a>)</li> </ol>



	<a href="#">Build Pack</a> , operation SoftwareIntermediation.Delink) 4. Software platform might archive data or have other related processes for cleaning out related user data 5. Use case ends
2. Exception Flows	Please refer to the Software Intermediation Build Pack, operation SoftwareIntermediation.Delink
3. Alternatives	None

**Table 18. PUC213 Delink Software Provider**

### 3.4.9 Use Case PUC203 Process Updates

PUC203 – Process Updates	
<b>User/Actors</b>	Software Provider 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>Software Provider software is Onboarded and therefore authorised to communicate with TDS (<a href="#">See Section 5 of this document</a>).</p> <p>The Software Provider 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 Software 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 Software Provider Subscription in advance of the first full file feeds.</p>
<b>Triggers</b>	<p>Inland Revenue daily batch processing generates files for Software Provider software subscription. These files are added to zip files that are PGP signed and encrypted and sent to the Software Provider software 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 Software Provider is receiving from Inland Revenue daily.</p>
<b>Constraints</b>	
<b>Post-Conditions</b>	The updates have been assimilated within the Software Provider Software so a Tax Agent or Customer on subsequent sessions using the software will see the data reflected.
<b>Use Case Scenarios</b>	


**PUC203 – Process Updates**

1. Normal Flow	The steps after the SFTP transfer completes depend on the Software Provider Software. Once all the file content has been transferred, the Software Provider software will process the file content and make it available to the software instances used by the users of the requesting organisations.
2. Exception Flows	The variations depend on Software Provider software.
3. Alternatives	No alternatives

**Table 19. PUC203 Process Updates**
**3.4.10 Use Case PUC204 Consolidate Transaction History**
**PUC204 - Consolidate Transaction History**

<b>User/Actors</b>	Software Provider 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><i>Note: This use case is for Tax Agents using Software Provider software where they previously received Customer data from the Tax Agent Web Service and where they have annotated or linked in the Tax Agent Web Service data they already hold.</i></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 Software 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>Software Provider 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 Software Provider software for their use of that software in Inland Revenue's Software Intermediation Service – See Onboarding and Build Pack for <a href="#">Software Intermediation Service</a>.</p>
<b>PUC204 a)</b>	<b>Consolidate Transaction History – a) initial</b>
<b>Pre-Conditions</b>	<p>In addition to the above, the Software Provider software has to be linked to the Tax Agent or Customer at the time of the Inland Revenue cutover to be included in this bulk one off feed. This requires the Software Provider to provide relevant Tax Agent or user IRD numbers to Inland Revenue for bulk linking</p>



<b>PUC204 - Consolidate Transaction History</b>	
	– see PUC202 above.
<b>Triggers</b>	The Software Provider software receives Transaction History Bulk File from Inland Revenue.
<b>Constraints</b>	
<b>Post-Conditions</b>	The Transaction History data has been assimilated within the Software Provider software so a Tax Agent or Customer on subsequent sessions using the Software Provider software will see the historic data reflected.
<b>Use Case Scenarios</b>	
1. Normal Flow	<ol style="list-style-type: none"> <li>1. Software Provider 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 Software Provider 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	The variations depend on Software Provider software. 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.
3. Alternatives	No alternatives
<b>PUC204 b)</b>	<b>Consolidate Transaction History – b) for new links</b>
<b>Pre-Conditions</b>	<p>When a new Software Intermediation link is created between a Software Provider and a Tax Agent or Customer a Bulk History File will be created and sent via SFTP. In addition where a new Client is added to a Tax Agent Client List a History File will be created for that Client and sent via SFTP. See <a href="#">Bulk History File Feed Build Pack</a>.</p> <p>In cases where the Tax Agent in the Software Provider software already has equivalent Tax Agent Web Service data and has annotations or links next to it requiring consolidation; rather than just replacing the data this use case can be invoked.</p>
<b>Triggers</b>	The Software Provider software receives Transaction History Bulk File from TDS that contains data correlating with Tax Agent Web Service data already existing in that software and possibly already annotated or linked.





<b>PUC204 - Consolidate Transaction History</b>	
<b>Constraints</b>	
<b>Post-Conditions</b>	The Transaction History data has been assimilated within the Software Provider software so a Tax Agent or Customer will see the historic data reflected on subsequent sessions using the Software Provider software.
<b>Use Case Scenarios</b>	
1. Normal Flow	<ol style="list-style-type: none"> <li>1. Software Provider 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>2. The steps within the Software Provider 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 moved across.</li> </ol> </li> <li>3. Use case ends</li> </ol>
2. Exception Flows	<p>The variations depend on Software Provider software</p> <ol style="list-style-type: none"> <li>1. See the systems use case (SUC 020 in <a href="#">TDS History Bulk Feed Build Pack</a>) for exception flows around the use of the TDS History Feed technical service.</li> </ol>
3. Alternatives	No alternatives

**Table 20. PUC204 Consolidate transaction history**

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

<b>PUC205 – Synchronise out of date data</b>	
<b>User/Actors</b>	Software Provider software
<b>Secondary Actor</b>	Inland Revenue Transaction Data Services
<b>Description</b>	<p>The system 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 Software Provider software does not hold up to date data, ie Software Provider software has identified a difference in the Last Activity date and kicks of this process to fix it being out of synch.</p> <p>The difference 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> <p>This process is a workaround for a potential malfunction and might be manually facilitated, depending on Software Provider risk aversion and investment level.</p> <p>This use case is for automated response to discrepancies. For user requests to call real-time data please see BUC104 and BUC105</p>
<b>Inland Revenue systems</b>	Gateway Services
<b>Pre-Conditions</b>	Bulk file feed has been subscribed to and data has been received.
<b>Triggers</b>	Over time, an error in one of the systems, or between them, has caused data to not be fully or accurately updated or stored in the Software Provider software. The period summaries in the weekly bulk file or the balances in the daily file identifies to the Software Provider software that there is a gap in the transactions stored for a period.
<b>Constraints</b>	
<b>Post-Conditions</b>	The Account/Period data has been updated in the Software Provider software; is synchronised and presented to the requestor through that software as and when relevant.
<b>Use Case Scenarios</b>	



PUC205 – Synchronise out of date data	
1. Normal Flow	<ol style="list-style-type: none"> <li>As per the trigger a weekly or daily Bulk Feed update has indicated to the Software Provider software that there is a gap in the data for a period.</li> <li>Either A(step 3) an existing user session, or B(step 4) a new user session, is used to get an OAuth token to allow the Software Provider software to call the Real Time web services: <ol style="list-style-type: none"> <li>Option A) the Software Provider software kept an existing user session alive in the background using a refresh token (available only on cloud endpoint). Refer to the <a href="#">Identity and Access Build Pack</a> for more information.</li> <li>Option B) the Tax Agent user logs in to Software Provider software and gets a message the software needs to connect to IRD so synchronise data. Software Provider software starts an independent browser session for the user to log onto the Inland Revenue site. At the end of this logon sequence, an OAuth token is returned for use in further calls to the Gateway Services. See the <a href="#">Identity and Access Build Pack</a> for more information.</li> </ol> </li> <li>The Software Provider software uses this token in a call to <b>SUC032 –operation Account.RetrieveAccountSummaries</b> to request an Account Summary for the relevant Account.</li> <li>If the max activity date returned for that account is not newer than what was already in the software it implies that there is no new data to retrieve, but still the existing gap.</li> <li>It will call <b>SUC033 – Operation Account.RetrievePeriodSummaries</b> to retrieve Period Summaries for that account.</li> <li>Only on those periods where there is the identified gap or a newer max activity date than what is already in the software will it call <b>SUC034 – Operation Transactions.RetrieveList</b> to get a full list of all transactions and update its records.</li> <li>The user might be visually shown what data was updated in the process.</li> <li>For any of the calls above as new data is returned it is stored in the software which also ensure the latest max activity date is stored is it is returned at Account and Period level, so future sessions don't unnecessarily repeat the same requests.</li> </ol>
2. Exception Flows	The variations depend on Software Provider software
3. Alternatives	<p>This process is a workaround for a potential malfunction and might be manually facilitated depending on Software Provider risk aversion and investment level around this.</p> <p>The Software Provider might elect to request an ad hoc bulk feed file in cases like this – which are expected to be rare.</p>

**Table 21. PUC205 Synchronise out of date data**



### 3.4.12 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>	Software Provider software Inland Revenue Transaction Data Services
<b>Description</b>	<p>This is an umbrella use case followed by more specific use cases that have reasons in common. Namely, each has a justification for calling the TDS Real Time service rather than solely relaying on the TDS Bulk File Feed. Please see BUC 104, BUC105, and PUC 205 for more detail.</p> <p>The user or system goal is to get complete, up to date Real Time data for a specific Customer, Account and Period.</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 Software Provider or Accounting Software and is authenticated, authorised and logged in to that software.</p> <p>User has myIR Logon 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>Software Provider is onboarded and therefore authorised to communicate with TDS (See Section 5 Onboarding in this document and the <a href="#">Onboarding Pack for TDS</a>).</p>
<b>Triggers</b>	The user or software requests transaction detail for a specific Customer/Account/Period through the Software Provider software. See individual use cases for specific triggers.
<b>Constraints</b>	<p>The request must be sent using the user's Software Provider software.</p> <p>User must have a valid login token.</p> <p>That login token must be available to the Software Provider.</p> <p>If that login has timed out it might need to be repeated or the refresh token used.</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>Individual Real Time requests are only for a single Client of the User at a time.</p> <p>Only Transactions that 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 or system is absorbed by the Software Provider software and presented when relevant.

**Table 22. BUC103 Query Tax Data Real Time**

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

<b>BUC104 - Query New data urgent subset</b>	
<b>User/Actors</b>	Customer/Tax Agent
<b>Secondary Actor</b>	Software Provider software Inland Revenue Transaction Data Services
<b>Description</b>	Customer/Tax Agent has new client or new software package and wishes to retrieve data for specific Accounts and specific Periods before the overnight Bulk File push. (If the tax agent wants to do a double check on an existing client for some reason that would be BUC105 below).
<b>Inland Revenue systems</b>	Gateway Services, Identity and Access Service (IAS)
<b>Pre-Conditions</b>	User is licensed and has access to Software Provider software and is authenticated, authorised and logged in to that software. User has myIR Logon 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. Software Provider software is onboarded and therefore authorised to communicate with TDS ( <a href="#">See Section 5 of this document</a> ).
<b>Triggers</b>	There might be some urgent periods to look at and Tax Agent/Customer decides not to wait for overnight Bulk Feed but to look at a small subset of the data through Real Time queries. User of the Software Provider software has not yet received the bulk file feed for this data (that would be BUC 105) due to the client or package or sign up or linking being new.
<b>Constraints</b>	The request must be sent using the user's Software Provider Software. User must have a valid login token. That login token must be available to the Software Provider. 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. Only Transactions which have been posted to the Customer's Account will be provided to the User at the time of the request.
<b>Post-Conditions</b>	The data requested by the User is presented by the Software Provider software.
<b>Use Case Scenarios</b>	



## BUC104 - Query New data urgent subset

1. Normal Flow	<ol style="list-style-type: none"> <li>1. User signs onto Software Provider software and navigates to look at Inland Revenue data. The user starts requesting transaction detail for a specific Customer by Account and by Period through the Software Provider software – the mechanism might vary widely depending on the actual software.</li> <li>2. Software Provider software starts an independent browser session for the user to log onto the Inland Revenue site. At the end of this logon sequence, an OAuth token is returned for use in further calls to the Gateway Services. Alternatively, an existing session might be used. See the <a href="#">Identity and Access Build Pack</a> for more information.</li> <li>3. Optional: If the user is a Tax Agent the Software Provider software uses this token in a call to the Inland Revenue Intermediation Gateway service to request a Client List to verify this customer is still linked. The software receives, updates, and displays the Client List. Alternatively, this step might be skipped if the Client is already identified or the user is not a Tax Agent but directly associated with the Customer organisation.</li> <li>4. The user selects an Inland Revenue Customer to look at.</li> <li>5. The Software Provider software reuses the token in a call to <b>Account.RetrieveAccountSummaries</b> to request Account Summaries for the Customer tax entity.</li> <li>6. The User receives the Account Summary data and selects an Account for the Customer tax entity.</li> <li>7. The Software Provider software reuses the token (possibly has to renew the token depending on the time that has passed) in a call to <b>Account.RetrievePeriodSummaries</b> to request the Period summaries for that Account.</li> <li>8. The User receives the Period Summary data and chooses to request a Transaction listing for one specific Period.</li> <li>9. The Software Provider software reuses the token (possibly has to renew the token depending on the time that has passed) in a call to <b>Transactions.RetrieveList</b> to request the transactions for that period for that Client Account.</li> <li>10. Steps 4 to 9 repeat if the user keeps navigating across Periods, Accounts and Customers to cover work that is urgent that cannot wait for the overnight Bulk File Feed. After each step the local records are updated, the display is updated and the user is given relevant options.</li> <li>11. User might do other work in the Software Provider software and eventually logs off and terminates session.</li> <li>12. The next morning all data will be updated due to the bulk file feed.</li> </ol>
2. Exception Flows	<p>Any variations depend on Software 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>


**BUC104 - Query New data urgent subset**

3. Alternatives	<p>If the user was already using the Software Provider software and the Tax Agent/Customer was already linked at the time of the initial bulk Software Provider linking, the content would already be available from bulk file feed.</p> <p>If data is not urgently needed it will be provided overnight in the bulk file feed.</p>
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**Table 23. BUC104 Query new data urgent subset**

*3.4.14 Use Case BUC105 Check whether data is up to date*

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

<b>User/Actors</b>	Customer/Tax Agent
<b>Secondary Actor</b>	Software Provider or Accounting software Inland Revenue Transaction Data Services
<b>Description</b>	<p>The user goal is to verify if the data held in the Software Provider software is up to date.</p> <p>This could be to check particular transactions such as receipt of payments, transfers, etc.</p> <p>Alternatively, the Tax Agent/Customer might have noticed on myIR there is a newer transaction not reflected in their Software Provider software and decides to bring the software up to date. This would happen automatically after the overnight bulk file feed but might be for the few transactions that come in during a day, such as a large payment run.</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 Software Provider software and is authenticated, authorised and logged in to that software</p> <p>User has myIR Logon 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>Software Provider software is onboarded and therefore authorised to communicate with TDS (<a href="#">See Onboarding Pack for TDS</a>)</p>
<b>Triggers</b>	The user decides to request an update to Customer Account Transaction Data through the Software Provider software.
<b>Constraints</b>	<p>The request must be sent using the user's Software Provider 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 Software Provider software.</p> <p>If that login has timed out it might need to be repeated.</p>




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

	<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>Each request is only for a single client of the User.</p>
<b>Post-Conditions</b>	<p>The User request has been received by GWS. See SUC030 and subsidiary use cases in <a href="#">TDS Real Time Build Pack</a>.</p>
<b>Use Case Scenarios</b>	
1. Normal Flow	<ol style="list-style-type: none"> <li>1. User initiates request for transaction data for a specific Customer/Account/Period in their Software Provider software to be refreshed from Inland Revenue.</li> <li>2. Software Provider software invokes that request to TDS - See systems use case (SUC 034 – Query Period Transaction List - in <a href="#">TDS Real Time Feed Build Pack</a>) for details.</li> <li>3. Usually there will be no new data due to the overnight Bulk File Feed and the use case would end here.</li> <li>4. If there is new data and the max activity date has changed then the software needs to update its copy of the Account level max activity date by checking at that level:</li> <li>5. Software Provider software invokes request to TDS - See systems use case (SUC 032 – Query Customer Account Summary - in TDS Real Time Feed Build Pack) for details.</li> <li>6. Software Provider software receives the response, and sets the max activity date and balances on the Account data.</li> <li>7. Software Provider software invokes 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. Software Provider software receives the response, identifies any periods that have changed.</li> <li>9. For each period that has changed Software Provider software invokes a Transaction Detail request to TDS - See systems use case (SUC 034 – Query Period Transaction List - in TDS Real Time Feed Build Pack) for details. Each such period is updated in the records.</li> <li>10. In the Software Provider software all data for that Account is now up to date and the balances and max activity dates at transaction, Period, and Account level match.</li> <li>11. Use case ends</li> </ol>
2. Exception Flows	<p>Any variations depend on Software Providers software packages.</p>
3. Alternatives	<p>If updated data is not urgently needed it will be provided overnight in the bulk file feed.</p>

**Table 24. 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 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	Software Provider Linking	Agent to Client Linking	Delegation in eServices	Full file push	Daily Push	Query accounts	Query transactions	History Feed
	Technical component	Software Intermediation GWS	Intermediation GWS	myIR	Bulk file Feed	Bulk file Feed	Accounts GWS	Transactions GWS	Bulk History File
	Implications								
<b>I.</b> Tax Agent starts using Software 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, provided through bulk file feed the next morning, daily updates thereafter	Y			Y	Y	Y	Y	Y
<b>II.</b> Delegated employee accesses Inland Revenue through Software Provider software and subscribes for updates; repeatedly has sessions over subsequent days	Data for the organisation is provided through bulk file 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 Software 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 including History		Y		Y	Y			Y

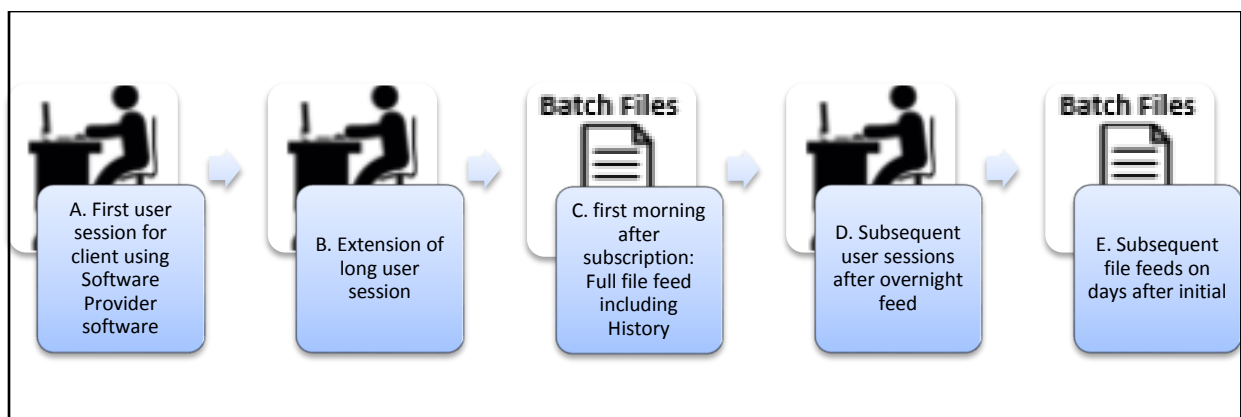
**Table 25. Sample Process Scenarios and technical components**

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

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

<b>Description</b>  <b>Scenario I</b>	<p><b>Tax Agent starts using Software 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 SOFTWARE 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 myIR Logon with current authorised access to relevant tax accounts</p>
<b>Triggers</b>	Login of Tax Agent into Software Provider software that is integrated with Inland Revenue Transaction Data Services
<b>Post-conditions</b>	Software 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 I**



**Figure 12. Scenario I - Tax Agent/Software 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	Software Provider Linking	Delegation in eServices	Daily Push	Query accounts	Query transactions	Full File Push
	Technical component	Identity and Access	Software 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			
PUC204 Consolidate Transaction History								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 27. Use Cases Scenario I - Tax Agent to Software Provider Linking**



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

Step	Actor	System	Description	Output
<b>A. FIRST USER SESSION USING SOFTWARE</b>				
1	Tax Agent	Software Provider Software	<b>Tax Agent logs in</b> to a Software Provider software integrated to Inland Revenue TDS.	Software Provider session
2	Tax Agent	Software 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 Software 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 Software 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	Software 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>	Software Provider Software	Inland Revenue Software Intermediation service	<b>Software Provider software calls Inland Revenue Software Intermediation service</b> using user access token, <b>to link Software Provider and Tax Agency list(s) that 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	Software 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>	Software Provider Software	Inland Revenue Account service	Software 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	Software Provider Software	Agency staff member selects the <b>account and period to look at in more detail.</b> Software 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>	Software 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	Software 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>	Software Provider Software	Inland Revenue Gateway Services (GWS)	If the Tax Agent login in the Software 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>	Software Provider software	Inland Revenue Authentication service	<b>The Software 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	Software 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>	Software Provider software	Inland Revenue Account service	Software 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	Software Provider software	Tax Agency staff member selects the <b>account and period to look at in more detail</b> . Software 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>	Software 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	Software 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 Software Provider central location.	Software Provider central location has full export of client data related to recently subscribed client accounts.
18 <b>Use Case PUC203</b>	Software Provider central software and file location	Software Provider software	Based on triggers that see the daily file upload from Inland Revenue is completed, <b>Software 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 <b>Use Case SUC002</b>	Inland Revenue	Software Provider central software and file location	TDS Bulk History has provided the converted data in Tax Agent Web Service format to Software Providers. See Appendix D for Tax Agent Web Services Codes	Software Provider has client history related to specific Account(s)/ Period(s).
20 <b>Use Case PUC204</b>	Software Provider central software and file location	Software Provider software	<b>Software 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
21			Tax Agent does other work and repeats steps above if necessary.	



Step	Actor	System	Description	Output
<b>D. SUBSEQUENT SESSION</b>				
22	Tax Agent	Software Provider software	Tax Agent logs into the Software 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
23 <b>Use Case BUC103</b>	Tax Agent	Software 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>				
24 <b>Use Case SUC001</b>	Inland Revenue	Software 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 Software Provider central location in the same way as the initial export file. <i>Note: If additional Software Intermediation links have been created or new Clients added to a Tax Agent Client Listing then a Bulk History File will be created using SUC002 and PUC204 will be required in the step below.</i>	Software Provider central location has full export of client data related to recently subscribed client accounts.



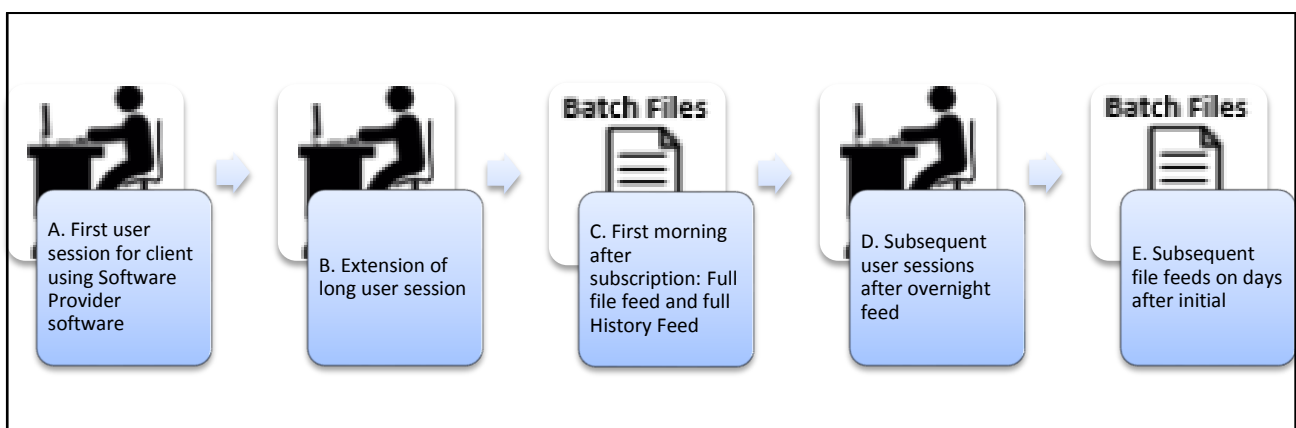
Step	Actor	System	Description	Output
25 <b>Use Case PUC203</b>	Software Provider central software and file location	Software Provider software	<p>Based on triggers that see the daily file upload from Inland Revenue is completed, <b>Software Provider centrally running software will process and import 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 Software Provider has cached. Such periods could be marked for remediation when the user next logs in.</p>	Further uploads if necessary
26	Tax Agent	Software Provider software	<p>Tax Agent logs into the Software 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
27 <b>Use Case BUC105</b>	Tax Agent	Software Provider software Inland Revenue Gateway Services	<p>If there is a period marked as out of synch the Software 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 28. Scenario I detail Tax Agent/Software Provider Linking and Subscription**

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

<b>Description</b>  <b>Scenario II</b>	<p>Organisation staff member accesses Inland Revenue transaction feed through Software Provider software and subscribes for updates, then repeatedly has sessions to look at the data over subsequent days</p> <p>This sample process variation covers 5 typical stages following on from this initial trigger:</p> <ul style="list-style-type: none"> <li>A. FIRST USER SESSION IN SPECIFIC SOFTWARE 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>	<p>Delegated employee has a valid myIR Logon</p> <p>Delegated employee myIR Logon has current authorised access to relevant tax accounts</p> <p>Delegated employee has a Software Provider software login, internet access</p>
<b>Triggers</b>	Login of delegated employee into Software Provider software that is integrated with Inland Revenue Transaction Data Services
<b>Post-conditions</b>	Software Provider software has received and displayed accurate and complete data for the organisation requested and subscribed for future updates in that software

**Table 29. Summary Scenario II - Customer to Software Provider Linking and Subscription**



**Figure 13. Scenario II – Customer/Software Provider Linking and Subscription**

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

Step	Actor	System	Description	Output
<b>A. FIRST USER SESSION USING SOFTWARE</b>				
1	Delegated employee	Software Provider software	<b>Delegated employee logs in</b> to a Software Provider product that is integrated to Inland Revenue TDS.	Software Provider session
2 <b>Use Case PUC201</b>	Delegated employee	Inland Revenue Authentication service	<b>The Software 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 Software 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	Software 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 the steps to link and processing of daily update files will be skipped.</i>	Confirmation
4 <b>Use Case BUC101</b>	Software Provider software	Inland Revenue Intermediation service	<b>Software Provider software calls Inland Revenue Intermediation service using user access token, to link Software 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	Software 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>	Software Provider software	Inland Revenue Account service	Software Provider software queries Account service for the visible list of accounts for the customer.	List of client accounts
7 <b>Use Case BUC103</b>	Delegated employee	Software Provider software	Delegated employee selects the <b>account and period to look at in more detail.</b> Software 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
8 <b>Use Case SUC030</b>	Software 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	Software 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>	Software Provider software	Inland Revenue Gateway Services	If the staff member login in the Software 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>	Software Provider software	Inland Revenue Authentication service	<b>The Software 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	Software 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	Software Provider software	Delegated employee selects the <b>account and period to look at in more detail</b> . Software 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>	Software 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	Software 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	Software 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 Software Provider central location. <i>Note: A Bulk History File will also be created – SUC002</i>	Software Provider central location has full export of relevant subset of organisation tax data.
17 Use Case SUC002	Inland Revenue	Software Provider central software and file location	The next morning <b>Inland Revenue batch processing in START will generate export files of History data 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> This file is sent to the Software Provider central location. See <a href="#">Bulk History Feed Build Pack</a> .	Software Provider central location has full export of relevant subset of organisation History data.
18 <b>Use Case PUC203</b>	Software Provider central cloud software and file location	Software Provider software	Based on triggers that see the daily file upload from Inland Revenue is completed, <b>Software Provider centrally running software will process and import the file content</b> in a way that makes it available for the organisation employees that have delegated access and are Software Provider software users. <i>Note: PUC204 Consolidate Transaction History will be enacted on the Bulk History File.</i>	Data ready for viewing by Accountant or organisation employee
19 <b>Use Case PUC204</b>	Software Provider central cloud software and file location	Software Provider software	Based on triggers that see the daily file upload from Inland Revenue is completed, <b>Software Provider centrally running software will process and import the History file content</b> in a way that makes it available for the organisation employees that have delegated access and are Software Provider software users.	History Data ready for viewing by Accountant or organisation employee





Step	Actor	System	Description	Output
<b>D. SUBSEQUENT SESSION</b>				
20 <b>Use Case BUC103</b>	Delegated employee	Software 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>				
21 <b>Use Case SUC001</b>	Inland Revenue	Software 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 Software Provider central cloud location in the same way as the initial export file.	Software Provider central location has full export of organisational tax data related to any subscribed organisational accounts.
22 <b>Use Case PUC203</b>	Software Provider central cloud software and file location	Software Provider software	Based on triggers that see the daily file upload from Inland Revenue is completed <b>Software 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 Software Provider has cached. Such periods can be marked for remediation when the user next logs in.	Further uploads if necessary



23	Delegated employee	Software Provider software	Delegated employee logs into the Software 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
24 <b>Use Case BUC103</b>	Delegated employee	Software Provider software Inland Revenue Gateway Services	If there is a period marked as out of synch, the Software 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

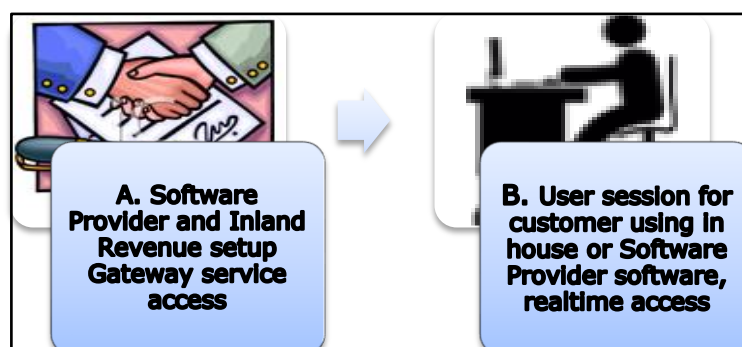
**Table 30. Scenario II - Customer to Software Provider Linking and Subscription**

#### 4.2.3 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 Software 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 SOFTWARE 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 Logon</p> <p>Delegated employee myIR Logon has current authorised access to relevant tax accounts</p> <p>Delegated employee has a Software Provider software login, internet access</p>
<b>Triggers</b>	Login of Delegated employee into Software Provider software that is integrated with Inland Revenue Transaction Data Services
<b>Post-conditions</b>	Software Provider software has received and displayed accurate and complete data for the organisation requested

**Table 31. Summary Scenario III - Customer using frequent Real Time Sessions**



**Figure 14. Scenario III - Customer using frequent Real Time Sessions**



#### 4.2.3.1 Base Flow for Sample Scenario III - Customer using frequent Real Time Sessions

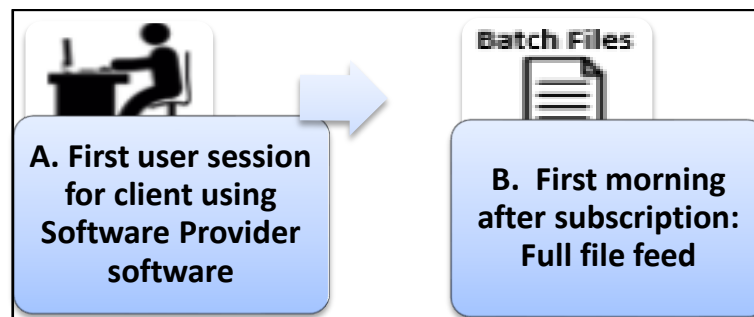
Step	Actor	System	Description	Output
<b>A. FIRST USER SESSION USING SOFTWARE</b>				
1	Delegated employee	Software Provider software	<b>Delegated employee logs in</b> to a Software Provider product that is integrated to Inland Revenue TDS.	Software Provider session
2 <b>Use Case PUC201</b>	Delegated employee	Inland Revenue Authentication service	<b>The Software 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 Software 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	Software 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	Software Provider software	<b>Delegated employee selects the account and period to look at in more detail.</b>  Software 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>	Software 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 Software Provider software

**Table 32. Scenario III - Customer using frequent Real Time Sessions**

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

<b>Description</b>  <b>Scenario IV</b>	<p>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)</p> <p>This scenario covers the 2 stages (see figure below) of the general process following on from the initial trigger:</p> <p>A. FIRST USER SESSION (ON RELATED CLIENT, IN SPECIFIC SOFTWARE PROVIDER SOFTWARE PRODUCT)</p> <p>B. NEXT MORNING, FIRST ONE AFTER SUBSCRIBING</p>
<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 myIR Logon with current authorised access to relevant tax accounts</p> <p>Tax Agency is already linked to Software Provider software</p> <p>Tax Agent has a Software Provider software login and internet access</p>
<b>Triggers</b>	Login of Tax Agent into Software Provider software that is integrated with Inland Revenue Transaction Data Services
<b>Post-conditions</b>	Software Provider software has received accurate, complete data for the Client(s) requested and subscribed for future transaction data updates in that software

**Table 33. Scenario IV - New Client for Agency**



**Figure 15. Scenario IV - New Client for Agency**

## 4.2.3.3 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	Software 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>In addition a History File will be generated with data for newly added clients and sent via SFTP (SUC002)</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 Software Provider central location.</p>	Software Provider central location has full export of client data related to recently subscribed client accounts.
3 <b>Use Case PUC203 and PUC204</b>	Software Provider central software and file location	Software Provider software	<p>Based on triggers that see the daily file upload from Inland Revenue is completed, <b>Software 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

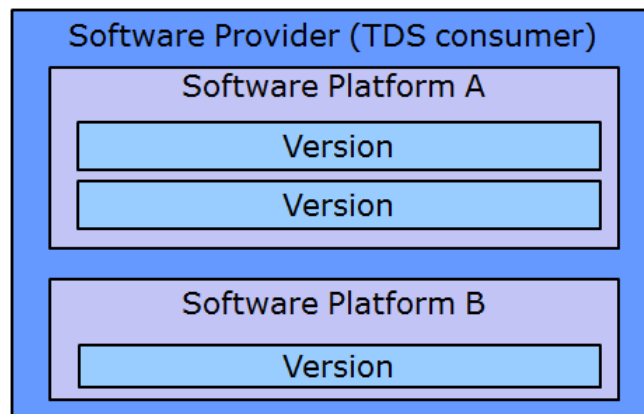
Table 34. Sample Process Scenario IV

## 5 Onboarding

To consume Inland Revenue services (including TDS) a Software Provider must first be "onboarded". This section contains information relating to the onboarding process.

This section assumes the conceptual overview in Section 1.4 "Fundamental concepts - interacting parties in TDS" has been read and understood.

Each Software Platform needs to be registered with Inland Revenue to be able to consume services. A Software Provider may use multiple Software Platforms. Inland Revenue will assign a unique identifier for each Software Platform.



**Figure 16. Software Provider with 2 Software Platforms**

### 5.1 Onboarding process summary

1. Project work is aligned
  - a. Initial identification of Software Platforms to be created and related contact information and timelines
  - b. Shared Partner Test Plan drafted
2. Basic connectivity is established
  - a. Registration starts requesting software platform creation with related exchanging of keys and endpoint information and
  - b. Firewall changes and certificate trust (X509 for TLS, SSH, PGP) are then applied on both sides
3. Test data slice information and Software Provider/Platform/Release information is then formalised
4. Security related configuration and testing
  - a. OAuth related information like endpoints and redirect URI's are exchanged
  - b. Client ID and secret is provided by Inland Revenue
  - c. User accounts to be used in testing environments are clarified in the Partner Test Plan
  - d. Testing to ensure connectivity works up to functional services
5. Testing goes up to the point of validating it is production ready. Refer to the Partner Test Plan for a description. The core of the solution and first thing to be tested for most





Software Providers would be the bulk files sent over SFTP to the Software Provider. All of the above sections and types of information exchange need to be set up for this to occur:

- a. SFTP location and key exchange without which there can be no files provided
- b. Bulk linking, without which there would be no data in the files
- c. Real time access without which there is no way to keep the Software Intermediation links up to date – unless all data is put under one agency and that is all the software will be used for.

6. At that point the identifiers are activated in the Inland Revenue production environment.

## 5.2 Technical Requirements

Interactions with Inland Revenue can broadly be split into 2 technical categories:

- **Web Services**
  - For TDS this includes the Account, Transactions, Intermediation, & Software Intermediation Services.
- **File transfer (via SFTP)**
  - For TDS this includes the Bulk and History file feeds.

The setup components required for these are described below:

### 5.2.1 Web Services

- a) Before calling a web service, the consumer must firstly use the IR Authorisation service to obtain an *OAuth Access Token*. More information about the Authorisation service is available in the [Identity & Access Build Pack](#), including setup required. In summary, the Software Provider will be assigned an OAuth Client ID and secret (representing each Software Platform), and will need to provide a Redirect URI that Inland Revenue will use as part of the service handshake.
- b) Web services (accessed by Cloud based software) use mutual TLS authentication and the Software Provider is required to exchange TLS certificates for this purpose. There is also an endpoint for connections from Desktops and it does not use mutual TLS.
- c) Each web service has a header that contains the following information:
  - Software Provider name
  - Software Platform ID
  - Software Platform Version (Release)

These will be provided by Inland Revenue after consultation with the Software Provider. The values are checked at run time against values Inland Revenue holds to ensure alignment. These values must match exactly for requests to not be rejected at runtime.

- d) For testing, an additional value is required within the web service header that determines the "data slice" that is to be used. This value will be provided by Inland Revenue during the partnership testing phase.



### 5.2.2 File transfer (via SFTP)

In all cases, file transfers initiate from Inland Revenue to the Software Provider's SFTP server. This is true regardless of the direction of the file transfer (push or pull).

- - a) Destination SFTP server details are required including:
    - SFTP server domain name (if available)
    - SFTP server IP Addresses (these addresses will be whitelisted by IR)
    - Destination directory details
  - 
  - b) An SFTP server account is required for use with Inland Revenue's SSH key for connecting to the SFTP server.
  - c) A PGP public certificate from the Software Provider is required to enable payload encryption of files sent by Inland Revenue.
  - 
  - d) For initial bulk linking requests Inland Revenue requests that it first be signed with a provider private key for which the public part has been provided to Inland Revenue.
  - 
  - e) A PGP Public certificate is provided by Inland Revenue to encrypt the initial Bulk Linking request (see section below) after it is signed.
  - 
  - f) 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
  -

## 5.3 Initial Bulk Linking

The TDS Bulk File feeds require Software Intermediation links to be created between the Software Platform and the Agents/Customers that need to be included in the Software Provider files.

Normally these links are maintained via the Software Intermediation service, however for initial loading these can be provided to Inland Revenue in a file and will be loaded in bulk.

#### Sample bulk linking request file

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

**Table 35. 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 Platform ID</b>	CHAR	10	Yes	Keep leading zeros		Software Platform ID (will be provided by Inland Revenue).

Field Name	Data Type	Size	Mandatory	Format	List of Values	Description
<b>Intermediation Type</b>	CHAR	8	Yes		AGENT, CUSTOMER	
<b>Agent or Customer ID</b>	CHAR	9	Yes	Keep leading zeros		Customer ID or Agent Client ID
<b>All Accounts flag</b>	CHAR	1	Yes for Customer Ignored for Tax Agent		1,2	1 – ALL Accounts 0 – Specific – see next field
<b>Account Type</b>	CHAR	3	Yes – if All CUSTOMER and All Accounts flag = 0 Otherwise ignored			It will be possible to stipulate an Account type or All accounts (Customers only)

**Table 36. Data for Bulk Linking Request**

This file should be:

- structured as above
- named **BulkLinkingRequest.txt**.
- PGP signed using the Software Provider's PGP key
- PGP encrypted using Inland Revenue key
- made available on the Software Providers SFTP site under the default folder for the TDS user

Bulk linking may also be required in some test environments for Inland Revenue to provide access.



## 6 Delegation and permissions

This section looks at the various aspects of permissions, delegation, linking and permission sharing related to accessing TDS data; and how they overlap.

### 6.1 Relationship types

- **Delegation:** To query data in TDS or link to data in TDS a myIR Logon must have delegated permissions set up via myIR portal:
  - This can be done for a Customer by those set up as owner or administrator for that Customer
  - Tax agencies have equivalent delegation set up to their myIR Logons for their staff – the ability to do this directly in myIR portal is new in 2018
- **Intermediation Linking:** Customer Accounts are linked through Client Lists for a Tax Agency in myIR – these links are visible via Intermediation Service.
- **Software Platform linking:** This linking subscribes a specific Tax Agent or Customer Account so that data gets sent to a specific Software Platform where it is being used.
- **Software Provider application data permissions:** This is the permission sharing internal to the Software Provider software. It may correlates with myIR Logon permissions as set up in myIR portal delegation: Inland Revenue supports a few variations.

### 6.2 Summary of relationship types

The following summarises key relationship types and their role in TDS. Subsequent subsections (6.4) explain this in more detail.

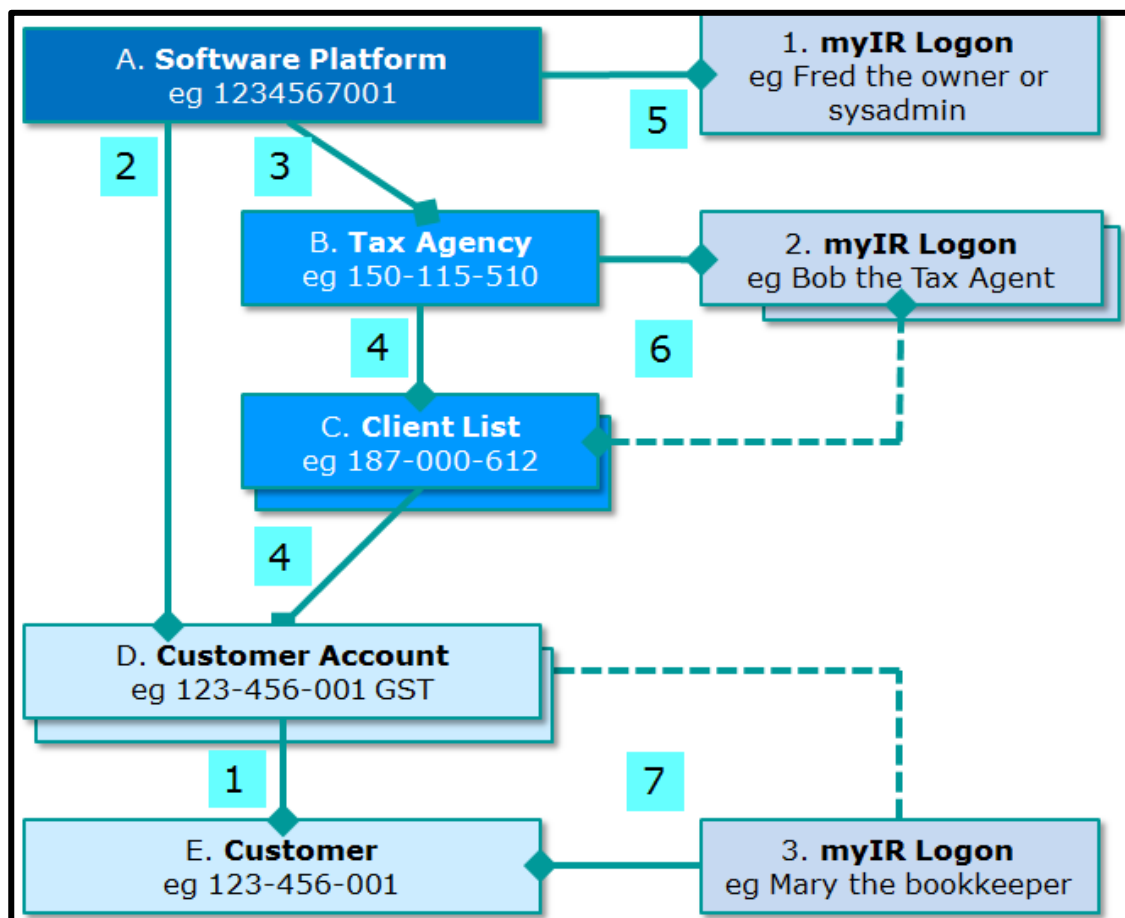


Figure 17. TDS Key relationship types



Number	Parties	Relationship	Purpose
<b>1</b>	D-E	Customer Accounts	Customer activity is by Account - typically a Tax Type (e.g. GST). All Transaction data is accessed under the relevant Account.
<b>2</b>	A-D	Software Intermediation link for Direct Customer Account	To subscribe for bulk updates of a Customer's Account data to be sent to a Software Platform when there is no Tax Agent involved.
<b>3</b>	A-B	Software Intermediation link for Tax Agent	To subscribe for bulk updates of Customer Account data linked to a Tax Agency (via Client Lists) to be sent to a Software Platform when there is a Tax Agent involved.
<b>4</b>	B-C C-D	Tax Agent Client Lists  Client Lists Linked to Customer Accounts	All Tax Agent access to Customer Transaction Data is grouped under Client Lists. A Tax Agency can set up as many Client Lists as they desire to group their Customer Accounts. A given Customer Account can only be linked to one Client List at a time.
<b>5</b>	1-A	Software Platform myIR Logon delegation	Logons are set up to allow access to administer Software Platform Links through myIR and Gateway Services.  Each such User ID is associated with the Software Platform with an Access Type(Role). The Access role of Owner can create, query or break Software Intermediation links.
<b>6</b>	2-B	Tax Agent myIR Logon delegation	Logons are set up to allow access to administer Tax Agency Links through myIR and Gateway Services.  Each such User ID is first associated with the Tax Agency. This link has an Access Type(Role). Owner and Administrator users can establish and break Intermediation links.  Note: There is also an Access Control Matrix defined to determine the Account Permissions (View/Filing/Pay/Full/None) each User ID has on specific Client Lists(Access Level). Initially a permission file will reflect what accounts are visible to each User ID based on this matrix

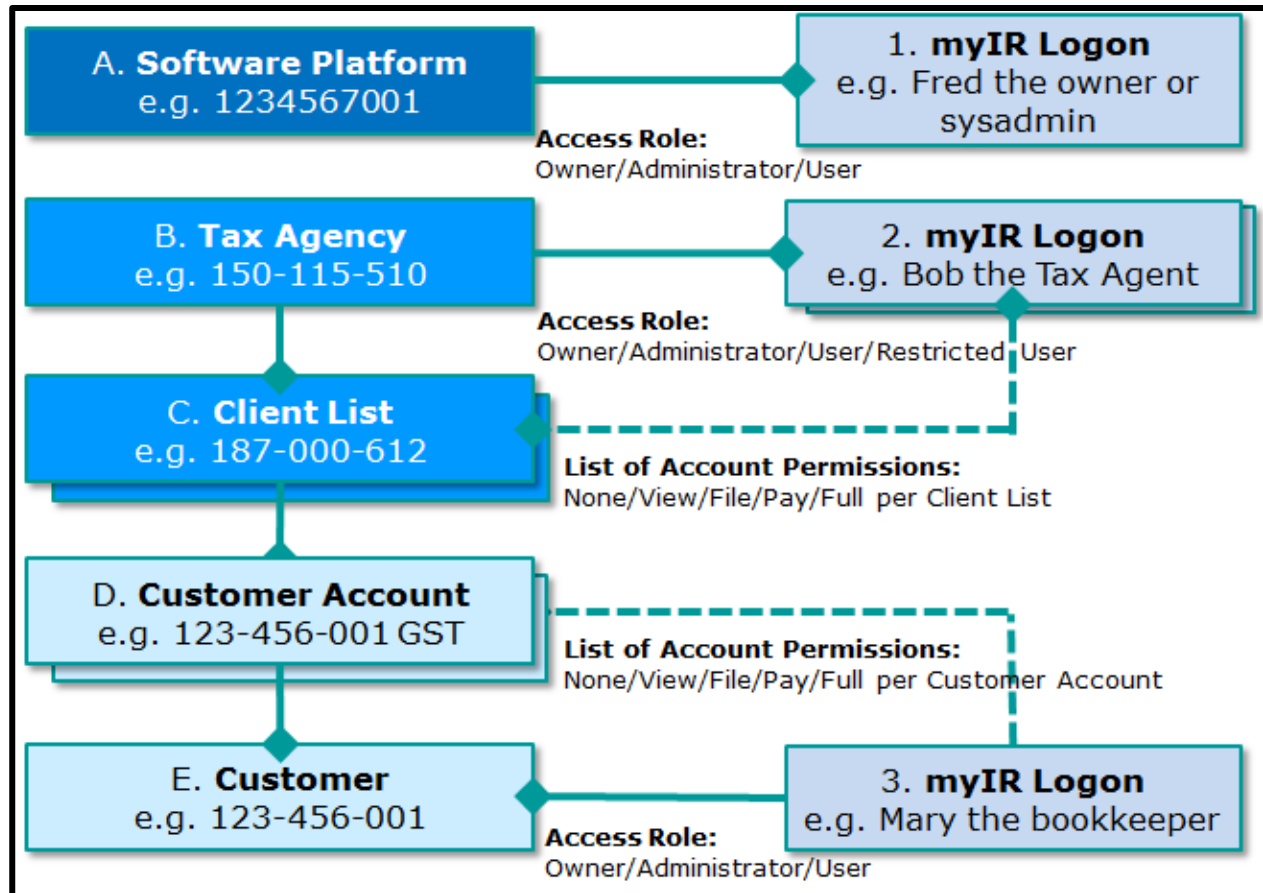


Number	Parties	Relationship	Purpose
<b>7</b>	3-E	Customer myIR Logon delegation – when there is no Tax Agent involved.	<p>UserIDs are set up to allow access to administer Customer Accounts through myIR and Gateway Services. Each such User ID is first associated with the Customer.</p> <p>This link has an Access Type(Role). Owner and administrator users can establish and break Software Intermediation and Intermediation links.</p> <p>Bookkeepers might be required to access data through Customers as they do not yet have an Inland Revenue Client List. If they do not have Owner or Admin access through myIR to their Customer Accounts, a user with that access will need to create Software Intermediation links to receive the data for the end Customer. The Service Provider would then need to have a mechanism that allows the Customer to share the data with the bookkeeper inside the Service Provider platform.</p> <p>Note: There is also an Access Control Matrix defined to determine the Account Permissions (View/Filing/Pay/Full/None) each User ID has on specific Accounts. Initially a permission file will reflect what accounts are visible to each User ID based on this matrix</p>

**Table 37. TDS key Relationship Types**

### 6.3myIR Logon delegation permissions

- Access to Inland Revenue's Online Services portal (myIR) is via a credential known as the "myIR Logon".
- All Gateway Web Services that require user authentication tokens rely on the same myIR Logon credentials and the permissions set up for each of these logons.
- What data a myIR Logon has access to, is controlled by the Inland Revenue delegation model.
- Any Customer or Tax Agent will have at least one associated myIR Logon that has owner Access Role. This logon can be used on myIR to set up delegated permissions for additional myIR Logons or to modify Account permissions for existing ones. Such delegated permissions up to 2018 in myIR are given in the context of a specific Customer or a Tax Agent's own internal Accounts. As of April 2018 myIR will also allow the online administration of such Account permissions for Tax Agent Client Lists.
- A myIR Logon is given permission on a Customer / Tax Agent / Software Platform with an Access Role. For Customer or Tax Agent there is then finer grained access control that is applied with Account Permissions in an Access Control List.
- Initially a file is provided with every file set of the bulk and history file feeds to reflect permissions in the Inland Revenue systems. Inland Revenue is only providing this file for a short period to facilitate Software providers transitioning to their own user and permission management systems.



**Figure 18. MyIR Logon delegation Permission model**

### 6.3.1 Customer delegation management

- In previous systems Inland Revenue used a mechanism where multiple Customer Locations were associated with different myIR Logons and the selection of Customer Location (through IRD number) and myIR Logon dictated the subset of data for that Customer that was available.
- An Access Control List now applies Account Permissions across all Accounts and myIR Logons for that Customer.
- A Customer might elect to consolidate into one myIR Logon per person or still keep separate myIR logins for a user per location/profile/Account.

### 6.3.2 Tax Agent delegation management

- Inland Revenue uses a mechanism where multiple Agency IRD numbers represent different client lists for a tax agent.
- To create a new Client List for use by a Tax Agent an Inland Revenue Account Manager has to be contacted who will allocate a new unique Agency IRD number with it.
- The choice of IRD number and User ID determines the subset of data to be retrieved.
- An Access Control List controls access across all Client Lists and myIR Logons for that Tax Agent.
- A Tax Agent might elect to consolidate into one logon per person or still keep separate myIR logins for a user per location/profile/Account.





### 6.3.3 MyIR Logon delegation Access Roles

Access Type	Customer delegation	Tax Agent Delegation	Software Platform
<b>(Level applied at)</b>	At Customer Level	At Tax Agent Level – for client lists	At Software Platform
<b>Owner</b>	<p>Can administer Access Role delegation on Customer</p> <p>Can administer Account Permissions delegation on all Customer Accounts</p>	<p>Can administer Access Role delegation on Tax Agent</p> <p>Can administer Account Permissions delegation on any Client Lists</p>	<p>Can create administrators</p> <p>Can create users</p> <p>Can list links and can delink</p>
<b>Administrator</b>	<p>Can administer Access Type delegation on Customer</p> <p>Can administer Account Permissions on any account they have been delegated permission to, limited to what their permission is e.g. if they have only been give View to FBT, they can only on-delegate View to the FBT account, not higher</p>	<p>Can administer Access Role delegation on Tax Agent</p> <p>Can administer Account Permissions on any client lists not given None access level on</p>	<p>Cannot create administrators</p> <p>Can create users</p> <p>Can list links and can delink</p>
<b>User</b>	<p>Only permissions as defined by Access Role per Customer Account</p> <p>No administration of Access Role or Account Permission delegation.</p>	<p>Can link and delink Customer Accounts to any client lists not given None access level on</p> <p>Permissions as defined by Account Permissions per Client List</p> <p>No administration of Access Role or Account Permission delegation.</p>	<p>Cannot create administrators</p> <p>Cannot create users</p> <p>Can list links and delink</p>
<b>Restricted User</b>	Same as User	<p>Cannot link and delink Customer Accounts</p> <p>Cannot request financial transfers of client payments and/or</p>	Same as user

Access Type	Customer delegation	Tax Agent Delegation	Software Platform
		credits  Otherwise same as User	

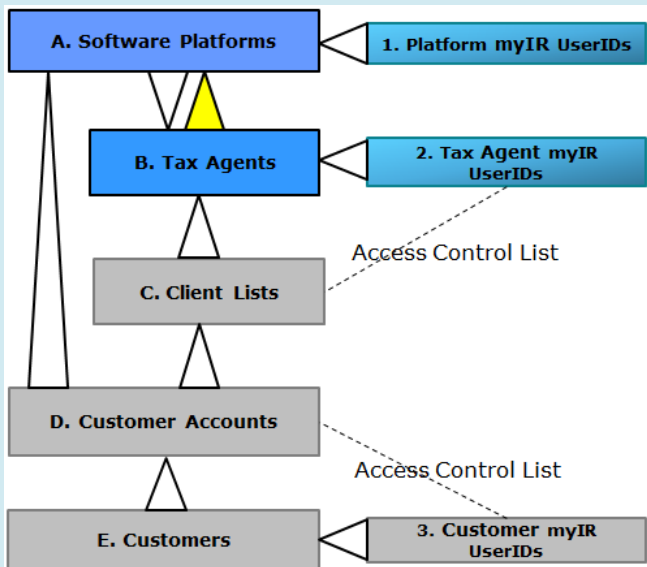
**Table 38. MyIR Logon delegation Access Types/Roles**

## 6.4 Summary of links, operations to update them, and permissions and delegations required

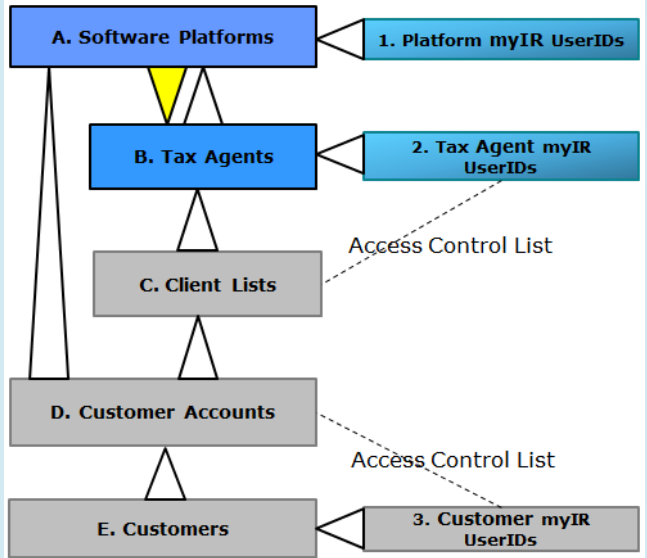
### 6.4.1 Software intermediation

- In order to receive bulk file content a link needs to be established between the Software Platform and the Tax Agent or Customer Accounts.
- In the call to the Software Intermediation service which establishes this link the security context for both parties to the link need to be provided.
- The Tax Agent or Customer or Software Platform Administrator is identified by an OAuth token representing a myIR Logon that has delegated permissions on that Customer or Tax Agent and sufficient Role level permission.
- Whether the link is established to a Tax Agency or a Customer will impact whether the daily content is sent in a Customer.xml file or Agent.xml file; the underlying transaction data content will be the same format regardless.
- If a link is established to a Tax Agent it will include all data for all client lists for that Tax Agent. Permissions need to then be applied on the Software Platform side to filter that as relevant for specific individuals.
- If a link is established to a Customer Account it cannot be at Customer level but needs to be at individual Customer Account level.
- If a User ID with administrator permission level is used it needs Administrator access to the relevant Accounts to have already been set up in delegation.
- To retrieve a list of Tax Agents or Customers currently linked to a Software Platform an user OAuth token is not required but it is not appropriate to expect a token from an end user of the Software Platform, rather an administrator for the Software Platform. Each registered Software Platform will be given at least one associated myIR Logon with Owner level permission that can be used to administer permissions and other delegation to retrieve links and break links.
- The generic myIR portal administration screens allowing delegation to be controlled for Customer or Business entities will be available to this User ID to use for this purpose.
- Inland Revenue is looking into making it available in myIR portal that a Customer or Tax Agent can see the Software Platforms their data is linked to and to help facilitate having that cancelled. The preference is to have a clean process on the Software Provider side to manage that delinking.

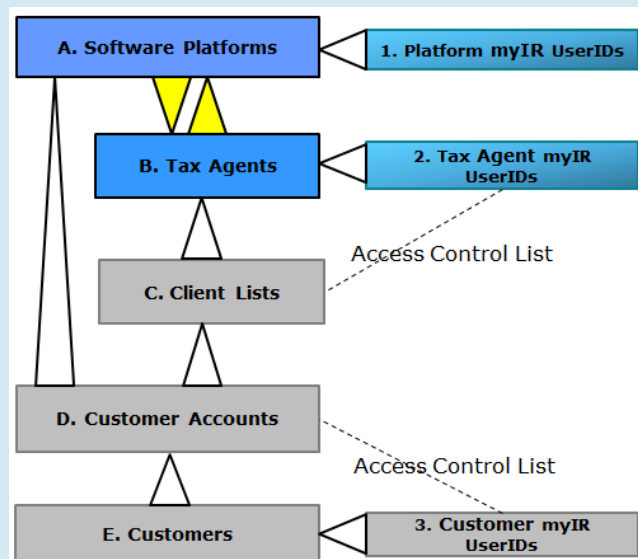
#### 6.4.2 Software Platform – Tax Agent (Relationship 3 in Table 37 above)

Relationship A-B - Software Intermediation Linking to Tax Agent		
	<b>Permissions Required</b>	Tax Agent delegated myIR Logon with owner or administrator permission – represented by OAuth token  Proof of SoftwarePlatform – cert or matching IDs
	<b>Operation</b>	SoftwareIntermediation.Link
	<b>Parameters</b>	SoftwarePlatform ID Tax Agency IRD number Type Agent
	<b>Results</b>	Link is established resulting in any Customer Accounts for any Client Lists for the Tax Agency being included in daily and weekly TDS bulk file feed to the Software Platform

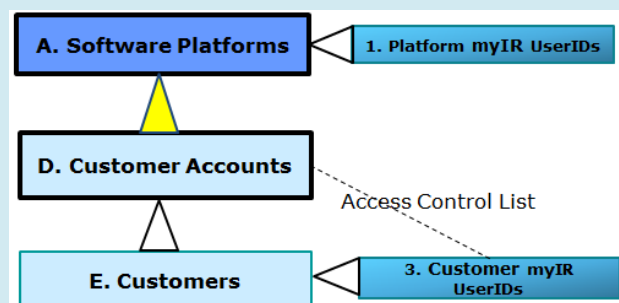
**Table 39. Software Platform – Tax Agent Linking**

Relationship A-B - Software Intermediation Retrieve Links to Tax Agents		
	<b>Permissions Required</b>	Software Platform delegated myIR Logon with owner or administrator permission – represented by OAuth token  Proof of SoftwarePlatform – cert or matching IDs
	<b>Operation</b>	SoftwareIntermediation.List
	<b>Parameters</b>	SoftwarePlatform ID Tax Agency IRD number Type Agent
	<b>Results</b>	Links are listed for all Tax Agents for the Software Provider

**Table 40. Software Platform – Tax Agent Listing**


**Relationship A-B - Software Intermediation Delinking from Tax Agent**


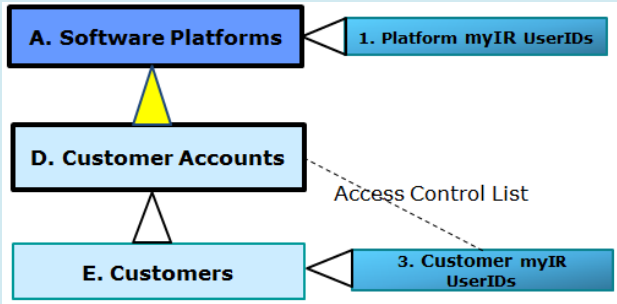
<b>Permissions Required</b>	1. Software Platform delegated myIR Logon with owner or administrator permission – represented by OAuth token  OR  2. Tax Agent delegated myIR Logon with owner or administrator permission – represented by OAuth token  Proof of SoftwarePlatform – cert or matching IDs
<b>Operation</b>	SoftwareIntermediation.Delink
<b>Parameters</b>	SoftwarePlatform ID Tax Agency IRD number Type Agent
<b>Results</b>	Link is removed resulting in no future Customer Accounts for any Client Lists for this Tax Agency, being included in daily or weekly TDS bulk file feed to Software Platform

**Table 41. Software Platform - Tax Agent Delinking**
**6.4.3 Software Platform - Customer Account (Relationship 2 in Table 37 above)**
**Relationship A-D - Software Intermediation Linking to Customer**


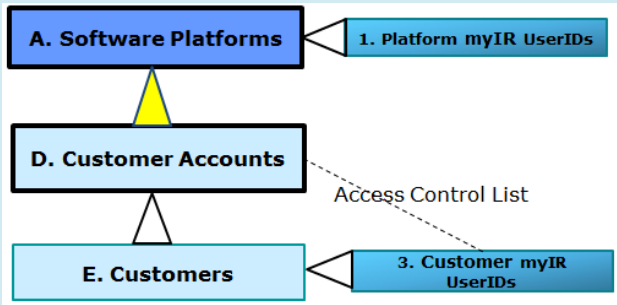
<b>Permissions Required</b>	Customer delegated myIR Logon with owner or administrator permission – represented by OAuth token  Proof of SoftwarePlatform – cert or matching IDs
<b>Operation</b>	SoftwareIntermediation.Link
<b>Parameters</b>	SoftwarePlatform ID Customer Account - IRD number and Account Type Type Customer
<b>Results</b>	Link is established to a Customer Account resulting in that Customer Account being included in daily and weekly TDS bulk file feed to the Software Platform

**Table 42. Software Platform – Customer linking**


**Relationship A-D - Software Intermediation Retrieve Links to Customers**

	<b>Permissions Required</b>	Software Platform delegated myIR Logon with owner or administrator permission – represented by OAuth token  Proof of SoftwarePlatform – cert or matching IDs
	<b>Operation</b>	SoftwareIntermediation.List
	<b>Parameters</b>	SoftwarePlatform ID  Customer Account - IRD number and Account Type  Type Customer
	<b>Results</b>	Links are listed for all Customer Accounts linked to the Software Platform

**Table 43. Software Platform – Customer listing**
**Relationship A-D - Software Intermediation Delinking to Customers**

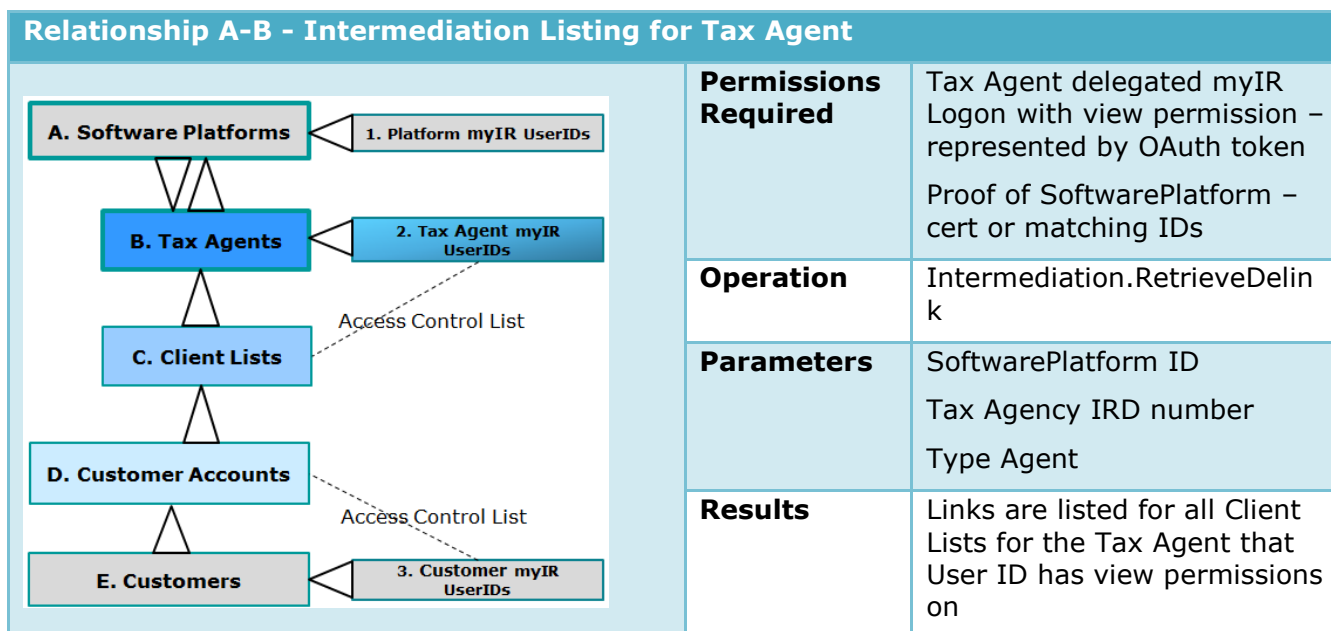
	<b>Permissions Required</b>	Software Platform delegated myIR Logon with owner or administrator permission – represented by OAuth token  OR  2. Customer delegated myIR Logon with owner or administrator permission – represented by OAuth token  Proof of SoftwarePlatform – cert or matching IDs
	<b>Operation</b>	SoftwareIntermediation.Delink
	<b>Parameters</b>	SoftwarePlatform ID  Customer Account - IRD number and Account Type  Type Customer
	<b>Results</b>	Link is removed resulting in those Customer Accounts not being included in daily overnight and weekend TDS bulk file feed to Software Platform

**Table 44. Software Platform – Customer Delinking**



#### 6.4.4 Tax Agent – Client Relationship (Relationship 4 in Table 37 above)

- Intermediation links are created between a business “intermediary” like a Tax Agent and a Customer Account.
- This link is between a Tax Agency Client List (which has its own IRD Number) and individual Customer Accounts, (e.g. IRD number and Account Type).
- Currently, the Intermediation service only provides an operation to view the existing linked Client lists and associated customers for a given agency.
- This allows software provider software to generate a list of accounts a user might want to scroll through to find one that urgently needs to be looked at before the overnight TDS bulk feed
- Administration of which Customer Accounts are linked to specific Tax Agent client lists is not yet available through Gateway Services in 2018; existing mechanisms like myIR portal or calling Inland Revenue will still be relied on.



**Table 45. Software Platform – Client listing**

### 6.5 Permission alignment between Inland Revenue and Software Platforms

**Transparency:** Inland Revenue holds permissions by myIR Logons in its system. This is provided with bulk feed data for full transparency and enforced when a web service is called (same as eServices). In order to support the scenarios above TDS in the 2018 version is intended to **initially** include full transparency on delegation and permissions as set up for myIR Logons, for a while. This is a transition mechanism which is in place until Software Providers are able to manage permissions within their software. It has not yet been determined how long this data will be sent with the Bulk File.

#### 6.5.1 Mapping User IDs

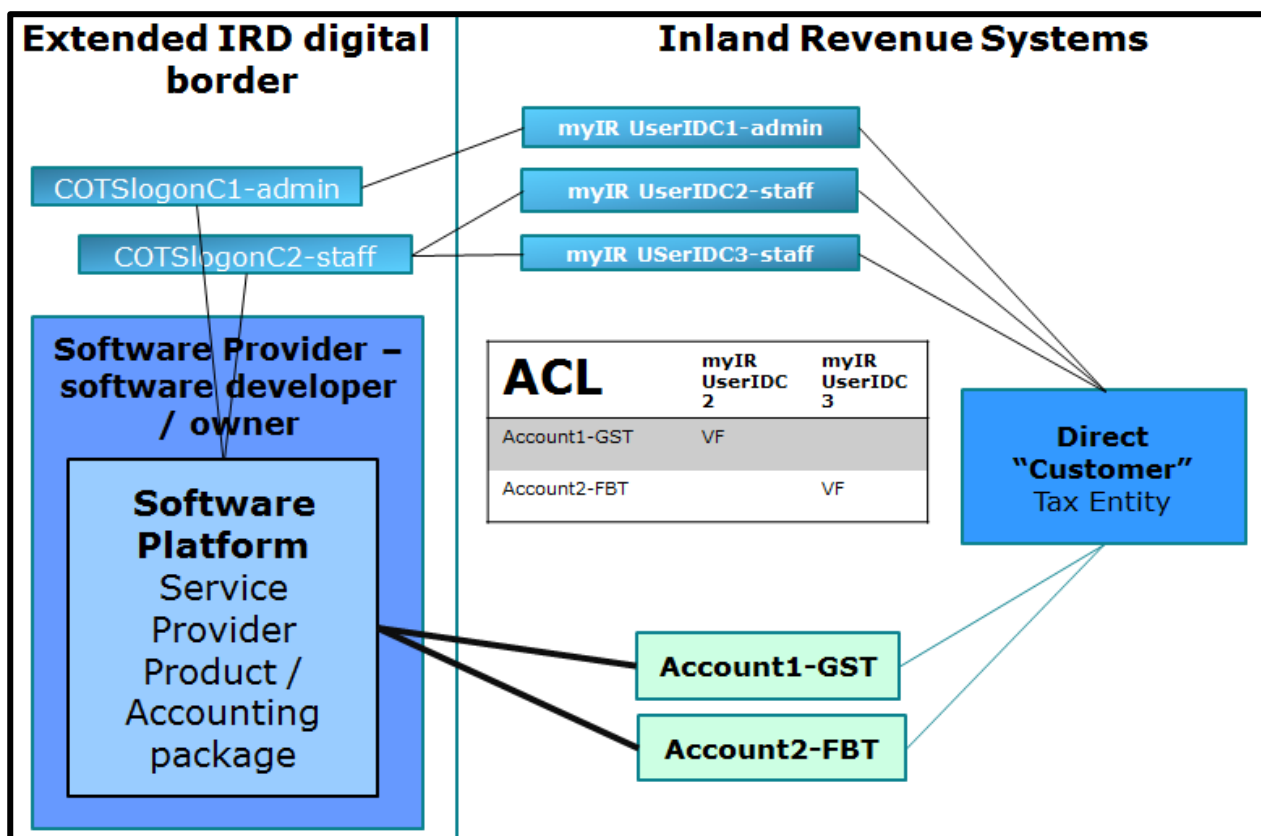
- For the above information around myIR Logons to be of use to Software Providers it is expected Software Providers will need to associate their internal/CRM user accounts to myIR Logon IDs.
- Due to the historical practice of providing a myIR Logon per client list there might be multiple current User IDs that relate back to one Software Platform user. The new mechanisms no longer require this and Tax Agents or Customers might choose to

consolidate existing myIR logons, or might choose not to in order to keep their work segmented.

Inland Revenue plans to support this mapping of Software Platform users to myIR Logons as follows:

- Unlike previous systems where the Software Provider's Software Platform could, and sometimes needed to, intercept the username and password for the myIR logon, the OAuth mechanism now used does not allow this interception.
- An OAuth mediated login sequence will result in an OAuth token for the myIR Logon selected by the user. Inland Revenue will make available a simple way for the Software Platform to then get the username for that token so it can be associated with that user. The technical details of this are being finalised.
- If historical valid logins from old systems are kept the Software Provider might choose to associate those myIR Logons with the user.
- In principle, the Software Provider could just ask the user what myIR Logons they own, but would need a way to avoid fraud – potentially anyone could claim to own a myIR Logon if it is not validated by getting an OAuth token from Inland Revenue.

#### 6.5.2 Summary of foreseen mapping and usage where Software Platforms mirror myIR Logon permissions



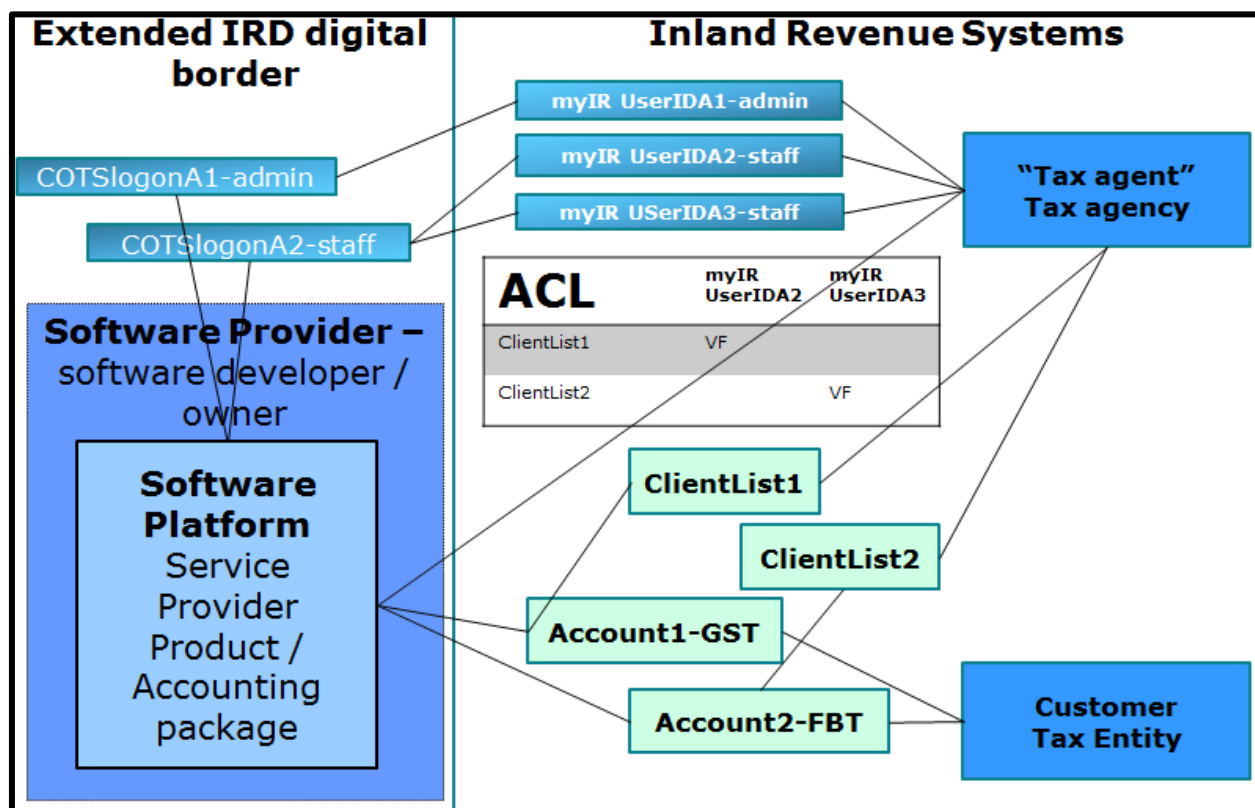
**Figure 19. Customer level permission alignment**

- This diagram is relevant only to Software Providers who wish to align to myIR permissions in their Software Platforms, and where a Software Intermediation Link is established directly to Customer Accounts and not to a Tax Agent.
- In the above diagram the Customer starts using a software platform. The initial links are established using myIR UserIDC1-admin that has the administrator permission to set up links to both Account1-GST and Account2-FBT.
- Inside the Software platform a user identified here as COTSLogonC2-staff logs in. That user has two different myIR Logons to access these two Customer Accounts.





- The Software Platform then twice allows the user to associate with those myIR Logons by using the OAuth sequence to login to IRD and get an OAuth token that the Software Platform then converts to a username.
- In the bulk file feed the Customer file set has a Intermediation.xml file showing what accounts specific myIR Logons have access to.
- Since the Software Platform has allowed the user to link to multiple myIR Service Accounts it can now translate those permissions in terms of its own local user credentials – in this case giving View (and Filing if relevant) permissions to COTSLogonC2-staff



**Figure 20. Tax Agent level permission alignment**

- This diagram is relevant only to Software Providers who wish to align to myIR permissions in their Software Platforms, and where a Software Intermediation Link is established to a Tax Agent and not directly to Customer Accounts.
- In the above diagram the Tax Agent starts using a software platform. The initial links are established using myIR UserIDA1-admin that has the administrator permission to set up links to both ClientList1 and ClientList2.
- Inside the Software platform a user identified here as COTSLogonCA-staff logs in. That user has two different myIR Logons to access these two Client Lists.
- The Software Platform then twice allows the user to associate with those myIR Logons by using the OAuth sequence to login to IRD and get an OAuth token that the Software Platform then converts to a username.
- In the bulk file feed the Tax Agent fileset has a Intermediation.xml file showing what client lists (and related Customer Accounts) specific myIR Logons have access to.
- Since the Software Platform has allowed the user to link to multiple myIR Service Accounts it can now translate those permissions in terms of its own local user credentials – in this case giving View (and Filing if relevant) permissions to COTSLogonC2-staff

## 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.
<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



Acronym/Term	Definition
<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.
<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>LPP</b>	Late Payment Penalty
<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>Software Provider Software</b>	<p>A Client Application is an operating instance of Software that is deployed in one or more sites. A number of deployment patterns are possible:</p> <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> <p>This is the computer software that contains interfaces to (consumes) the services that Inland Revenue exposes. Software is developed and maintained by a Software Provider and subsequently deployed as one or more Client applications.</p>
<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



Acronym/Term	Definition
	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. In most cases this terminology is not used; instead we use Software Provider.
<b>Software Platform</b>	Software Provider or accounting software set up as registered software to call Inland Revenue Gateway Services like TDS and to receive TDS bulk SFTP feeds. Previously referred to as Software Intermediary
<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. There might be multiple myIR Logons for one or more people associated with the Tax Agent entity.
<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>UOMI</b>	Use-of-money interest
<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

## Appendix B - Filing Frequency Codes

Account type	Filing Frequency Code	Filing Frequency Description	myIR Description
<b>AIP</b>	AIL6M3	Six monthly Mar/Sep	Six Monthly
<b>AIP</b>	AILI	Irregular	Irregular
<b>AIP</b>	AILMO	Monthly	Monthly
<b>AIP</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
<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
<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>	GSTMO	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
<b>PIE</b>	PIEMO	Monthly	Monthly
<b>PRS</b>	PRSMO	Monthly	Monthly
<b>RLT</b>	RLTMO	Monthly	Monthly
<b>RWT</b>	RWTMO	Monthly	Monthly



## Appendix C - START Transaction Codes

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

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



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



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



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



Transaction Type	Short Description	Description
<b>FEESCR</b>	Services provided credit note	Credit note for fee evaluated during binding ruling case
<b>FESEEC</b>	Security fee	Fee based on a security that has been issued
<b>FEESOL</b>	Solicitor's costs	Solicitor's Fees awarded by the Court
<b>FEESVC</b>	Services provided	Fee evaluated during the binding ruling process for services provided.
<b>FRSCRD</b>	Credit transferred from FIRST	Credit that was transferred from FIRST
<b>FWDAIL</b>	Transfer to AIL	Debit transaction used to offset a credit transaction when being transferred to a Account Issuer Levy account
<b>FWDAILREVOTC</b>	Reverse Transfer to Account Issuer Levy	
<b>FWDAIP</b>	Transfer to AIP	Debit transaction used to offset a credit transaction when being transferred to an Account Information Provider account
<b>FWDAIPREVOTC</b>	Reverse - Transfer to Account Information Provider	
<b>FWDCRS</b>	Transfer to CRS	Debit transaction used to offset a credit transaction when being transferred to a Common Reporting Standard account
<b>FWDCRSREVOTC</b>	Reverse - Transfer to Common Reporting Standard	
<b>FWDDWT</b>	Transfer to DWT	Debit transaction used to offset a credit transaction when being transferred to a Dividend Withholding Tax account
<b>FWDDWTREVOTC</b>	Reverse - Transfer to Dividend Withholding Tax	
<b>FWDFBT</b>	Transfer to FBT	Debit transaction used to offset a credit transaction when being transferred to a Fringe Benefit Tax account
<b>FWDFBTREVOTC</b>	Reverse - Transfer to Fringe Benefit Tax	
<b>FDGMD</b>	Transfer to GMD	Debit transaction used to offset a credit transaction when being transferred to a Gaming Machine Duty account
<b>FDGMDREVOTC</b>	Reverse - Transfer to Gaming Machine Duty	
<b>FDGSD</b>	Transfer to GSD	Debit transaction that transfer a credit to a Goods Sold in Satisfaction of Debt account
<b>FDGST</b>	Transfer to GST	Debit transaction used to offset a credit transaction when being transferred to a Goods and Services Tax account
<b>FDIPE</b>	Transfer to IPE	Debit transaction used to offset a credit transaction when being transferred to a Interest PAYE Exemption account
<b>FDIPEREVOTC</b>	Reverse - Transfer to Interest PAYE Exemption	



Transaction Type	Short Description	Description
<b>FWDIPS</b>	Transfer to IPS	Debit transaction used to offset a credit transaction when being transferred to an RWT - deductions from interest (IPS) account
<b>FWDIPSREVOTC</b>	Reverse - Transfer to RWT - deductions from interest (IPS)	
<b>FWDLGL</b>	Transfer to LGL	Debit transaction used to offset a credit transaction when being transferred to a legal costs account
<b>FWDNRT</b>	Transfer to NRT	Debit transaction used to offset a credit transaction when being transferred to a Non-Resident Withholding Tax account
<b>FWDNRTREVOTC</b>	Reverse - Transfer to Non-Resident Withholding Tax	
<b>FWDPIE</b>	Transfer to PIE	Debit transaction used to offset a credit transaction when being transferred to a Portfolio Investment Entity account
<b>FWDPIEREVOTC</b>	Reverse - Transfer to Portfolio Investment Entity	
<b>FWDPRS</b>	Transfer to PRS	Debit transaction used to offset a credit transaction when being transferred to a Payroll Subsidy account
<b>FWDRLT</b>	Transfer to RLT	Debit transaction used to offset a credit transaction when being transferred to a Residential Land Withholding Tax account
<b>FWDRLTREVOTC</b>	Reverse - Transfer to Residential Land Withholding Tax	
<b>FWDRUL</b>	Transfer to RUL	Debit transaction used to offset a credit transaction when being transferred to a Rulings & Determinations account
<b>FWDRWT</b>	Transfer to RWT	Debit transaction used to offset a credit transaction when being transferred to an RWT - Specified Dividends account
<b>FWDRWTREVOTC</b>	Reverse - Transfer to RWT - Specified Dividends	
<b>GLDCRD</b>	GL disbursement credit	Credit that has been generated by a GL disbursement activity.
<b>INTCRD</b>	Use of money credit interest	Use of money interest that is calculated on credit transactions
<b>INTMNC</b>	Manual credit interest	Manually posted credit interest transaction
<b>INTMND</b>	Manual debit interest	Manually posted interest transaction
<b>INTSTD</b>	Use of money debit interest	Use of money interest that is calculated on debit transactions
<b>INTWTH</b>	Tax withheld on credit interest	Records the amount that is to be withheld from credit interest
<b>MNLLTF</b>	Late filing penalty	Penalty recorded when a return or form is filed late





Transaction Type	Short Description	Description
<b>OFFBRP</b>	Proceeds on bankruptcy, offset	Offsetting transaction used to record when a payment has been received for proceeds on a bankruptcy
<b>PNLFPY</b>	Failure to Meet Requirements	This transaction is used to apply a Failure to Meet Requirements' penalty to CRS accounts.
<b>PNLFRC</b>	Failure to Take Reasonable Care	This transaction is used to apply a 'Failure to Take Reasonable Care' penalty to CRS accounts.
<b>PNLIPP</b>	Information Provider Penalty	This transaction is used to apply a 'Information Provider Penalty' to AIP accounts.
<b>PNLLFE</b>	Late filing penalty evaluation	This transaction is used to apply late filing penalty when no return has been added
<b>PNLLFR</b>	Late filing reconciliation penalty evaluation	This transaction is used to apply late filing penalty when no reconciliation return has been added
<b>PNLLTF</b>	Late filing penalty	Penalty recorded when a return or form is filed late
<b>PNLLTP</b>	Late payment penalty	Penalty recorded when a payment is deemed late
<b>PNLMNL</b>	Manual penalty	Manually posted penalty transaction
<b>PNLSHR</b>	Shortfall penalty	Records the shortfall penalty that is due
<b>PRTOTC</b>	Deferral of tax in dispute offset	Credit transaction that is used to mark a deferral of tax debit transaction that is under dispute.
<b>PRTOTD</b>	Deferral of tax in dispute offset, debit	Debit transaction that is used to mark a deferral of tax credit transaction that is under dispute.
<b>PYMACC</b>	Account payment	Credit resulting from a account payment voucher
<b>PYMAUD</b>	Audit payment	Credit resulting from an audit payment voucher
<b>PYMBKD</b>	Deduction Payment	Credit resulting from a deduction payment voucher
<b>PYMBKDREVCRD</b>	Reverse - Deduction Payment	
<b>PYMBLK</b>	Multi Payment	Credit resulting from a multi payment voucher
<b>PYMBLKREVCRD</b>	Reverse - Bulk Payment	
<b>PYMBRP</b>	Proceeds on bankruptcy, payment	Credit resulting from a proceeds on bankruptcy payment voucher
<b>PYMCOL</b>	Collection payment	Credit resulting from a collection payment voucher
<b>PYMCST</b>	Customer payment	Credit resulting from a customer payment voucher
<b>PYMEST</b>	Estimated Payment	Credit resulting from an estimated payment voucher
<b>PYMESTREVCRD</b>	Reverse - Estimated Payment	
<b>PYMLCA</b>	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
<b>PYMLCR</b>	Locked payment, return	Offsets a payment transaction so that it does not offset other debit transactions until the return transaction posts.
<b>PYMPLN</b>	Instalment arrangement payment	Credit resulting from a instalment arrangement payment voucher
<b>PYMPRD</b>	Period payment	Credit resulting from a period payment voucher
<b>PYMRTN</b>	Return payment	Credit resulting from a return payment voucher
<b>RECAIL</b>	Transfer from AIL	Credit transaction received from a different account or period that posts from a Account Issuer Levy account
<b>RECAILREVCRD</b>	Reverse - Transfer from Account Issuer Levy	
<b>RECAIP</b>	Transfer from AIP	Credit transaction received from a different account or period that posts from an Account Information Provider account
<b>RECAIPREVCRD</b>	Reverse - Transfer from Account Information Provider	
<b>RECCRS</b>	Transfer from CRS	Credit transaction received from a different account or period that posts from a Common Reporting Standard account
<b>RECCRSREVCRD</b>	Reverse - Transfer from Common Reporting Standard	
<b>RECDWT</b>	Transfer from DWT	Credit transaction received from a different account or period that posts from a Dividend Withholding Tax account
<b>RECDWTREVCRD</b>	Reverse - Transfer from DWT	
<b>RECFBT</b>	Transfer from FBT	Credit transaction received from a different account or period that posts from a Fringe Benefit Tax account
<b>RECFBTREVCRD</b>	Reverse - Transfer from FBT	
<b>RECGMD</b>	Transfer from GMD	Credit transaction received from a different account or period that posts from a Gaming Machine Duty account
<b>RECGMDREVCRD</b>	Reverse - Transfer from GMD	
<b>RECGSD</b>	Transfer from GSD	Credit transaction received from a different account or period that posts from a GSD account
<b>RECGST</b>	Transfer from GST	Credit transaction received from a different account or period that posts from a Goods and Service Tax account
<b>RECIPE</b>	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
<b>RECIPEREVCRD</b>	Reverse - Transfer from Interest PAYE Exemption	
<b>RECIPS</b>	Transfer from IPS	Credit transaction received from a different account or period that posts from a RWT - deductions from interest (IPS) account
<b>RECIPSREVCRD</b>	Reverse - Transfer from RWT - deductions from interest (IPS)	
<b>RECLGL</b>	Transfer from LGL	Credit transaction received from a different account or period that posts from a Legal Costs account
<b>RECNR</b>	Transfer from NRT	Credit transaction received from a different account or period that posts from a Non-Resident Withholding Tax account
<b>RECNRREVCRD</b>	Reverse - Transfer from Non-Resident Withholding Tax	
<b>RECP</b>	Transfer from PIE	Credit transaction received from a different account or period that posts from a Portfolio Investment Entity account
<b>RECPREVCRD</b>	Reverse - Transfer from Portfolio Investment Entity	
<b>RECP</b>	Transfer from PRS	Credit transaction received from a different account or period that posts from a Payroll Subsidy account
<b>RECLT</b>	Transfer from RLT	Credit transaction received from a different account or period that posts from a Resident Land Withholding account
<b>RECLTREVCRD</b>	Reverse - Transfer from Resident Land Withholding Tax	
<b>RECRUL</b>	Transfer from RUL	Credit transaction received from a different account or period that posts from a Ruling and Determinations account
<b>RECRWT</b>	Transfer from RWT	Credit transaction received from a different account or period that posts from a RWT - Specified Dividends account
<b>RECRWTREVCRD</b>	Reverse - Transfer from RWT - Specified Dividends	
<b>REVCRD</b>	Reverse credit transaction	Debit transaction used to offset a credit transaction that is reversed
<b>REVINC</b>	Reverse interest transaction	Credit transaction used to offset an interest debit transaction that is reversed
<b>REVIND</b>	Reverse credit interest transaction	Debit transaction used to offset an interest credit transaction that is reversed
<b>REVOTC</b>	Reverse other transaction	Credit transaction used to offset another debit transaction that is reversed
<b>REVOTD</b>	Reverse credit other transaction	Debit transaction used to offset another credit transaction that is reversed



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

## 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>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>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>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>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



## Appendix E – Bank Standards

Attribute	Description	Data Type	Length
NZBankStandard			
Bank Number	The Bank where the Account is held	Char	2
Branch Number	The branch number of the bank	String	4
Account Number	Number of the bank account	String	8
Account Number Suffix	Suffix to the bank account number	String	4
NZ Bank Credit Union	Uses NZ Bank Standard and add an additional field		
Reference Number	Reference number for Credit Union account transaction	String	12
AUS Bank Standard			
BSB	Corresponds to bank ID, bank branch, state where bank is	String	6
Account	Account Number	String	9
US CAN Bank Standard			
Routing Number	Used to identify the specific bank	String	9
Account Number	Number of the bank account	String	17
SWIFT IBAN Bank Standard			
SWIFT BIC Code	Unique identification code for financial institution	String	11
Country Code	Country specific code	String	2
Check Digit	Allows for sanity check of bank account number for integrity	String	2
Basic Bank Account Number	Number of the bank account	String	30
Other Bank Standard			
Branch	This field is a generic field for branch identifiers and account prefixes	String	30
Account	This field is a generic field for an account	String	30



## Appendix F - Document History

This table lists all changes that have been made to this build pack document since initial external release (most recent changes listed first).

Version	Date	Description
<b>1.0</b>	12 April 2018	<p>P1,2 Reformatted title and second page slightly to remove duplication of versioning information and standardise naming</p> <p>1 Inserted new paragraphs</p> <p>1.1 New paragraphs in beginning of Section 1.1</p> <p>1.2 Transition explanations in first paragraph</p> <p>1.3 Explanatory addition to paragraph</p> <p>1.4 Fundamental Concepts – addition to last paragraph of Tax Agent definition</p> <p>2.4.1 Addition of this section</p> <p>3.3.2 – 4 New diagrams to account for replacement of adhoc History queries and general clarifications</p> <p>3.3.5 Use Case Listing – removal of BUC102, SUC020 and amendments to PUC204 and SUC002.</p> <p>3.4.2 BUC101 Updated to reflect History File production when new Links are created</p> <p>3.4.6 PUC211 Updated to reflect History File production when delinked and relinked</p> <p>3.4.10 PUC204 b) updated to reflect History file production – removal of query ability</p> <p>3.4.12 – BUC 102 Removed</p> <p>4.1 Addition of History File production with new links</p> <p>4.2.1 Addition of PUC204 into Table 27. Removal of Step 19 in Table 28 and additions into new Step 24 to reflect History File production</p> <p>4.2.2 Changes for Steps 17 onwards to reflect production of History File</p> <p>4.2.3.3 Addition to Step 2 to reflect History file production</p> <p>6.2 Table 37 Update to Number 7 Relationship to reflect updated position on Bookkeepers. Update to numbers 6 and 7 to reflect updated permission file more accurately.</p> <p>6.5 Updated to highlight permissions file being temporary</p>



Version	Date	Description
<b>0.81</b>	21 March 2018	<p>Updated History Feed Section of Table 1: Business Services in TDS and added paragraph following that table</p> <p>Updated Descriptions in Table 2 for Customer, System Customer Record, and Tax Agent for clarification</p> <p>Updated Description for Customer and User in Section 2.1 Data Model for clarification</p> <p>Section 2.2 Data Items:</p> <ul style="list-style-type: none"> <li>Updated Account Type with clarification</li> <li>Updated Forecasted Balances for Accounts, Periods and Bills</li> <li>Updated descriptions for Transfers</li> <li>Added Retrieve Date</li> </ul> <p>Updated Table 6 – Additional data available through TDS</p> <p>Added Section 2.4.4 GST Credit Assessments</p>
<b>0.8</b>		<p>Updated Transaction Data Service Layer diagram – Fig 1</p> <p>Updated Data fields in Section 2 for forecasted amounts, Intermediation and Notes following Table 5.</p> <p>Delete Section 2.5 – unnecessary as information is contained in preceding tables</p> <p>Updated links to Github</p> <p>Updated Fundamental Concepts Section 1.3 with new and changed definitions</p> <p>Addition of statement about the Intermediation File being an interim solution for an as yet unknown period.</p> <p>Updates to Section 6 on delegation and permissions – cosmetic - including removal of the type of permission data</p> <p>Formatting corrections and amendments for minor errors throughout the document</p> <p>Updated Bank Accounts – Appendix E</p> <p>Updated Appendix B – Filing Frequency – Removed duplicate RLT code, Updated filing Frequency for MPO, Changed AIL to AIP</p>
<b>0.52</b>	15 December 17	<p>Added <b>Section 1.3</b> Fundamental concepts - interacting parties in TDS – updated throughout document to standardise terminology</p> <p>Updated Bank Account information in <b>Section 2.2</b> and added Appendix E – Bank Standards</p> <p>Updated Migration Date in <b>Section 2.2</b></p> <p><b>Section 4</b> Refined TDS Real-Time use cases:</p>



Version	Date	Description
		<p>3.4.6 PUC 205, 3.4.8 BUC 103, 3.4.9 BUC 104, 3.4.10 BUC 105</p> <p>Expanded BUC101 to differentiate tax agent and direct customer more</p> <p>Added use case diagrams and put in cross references to help navigate between use case diagrams, listing and individual descriptions</p> <p>Added GitHub links to other build pack folders</p> <p>Onboarding <b>section 5</b> expanded to explain</p> <ul style="list-style-type: none"> <li>• software intermediary registration</li> <li>• provide an indication of project sequencing</li> <li>• give more detail on information to be exchanged</li> </ul> <p>Added <b>Section 6</b> on delegation and permissions</p>
<b>0.51</b>	22 Nov 2017	<p>Updated Bank Account details</p> <p>New Build Pack Overview diagram including second Intermediation Build Pack</p> <p>Added MPO and DSB as Account Types – Section 2.3</p> <p>Added History transaction and tax type list sections</p> <p>Updates to Section 2.9 Data Conversion</p> <p>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</p> <p>Added onboarding section including bulk linking</p> <p>Added Tax Agent Web Service Transaction Type Table – Appendix D</p>
<b>0.5</b>	Oct/Nov 2017	<p>Removed financial descriptions</p> <p>Updated scenarios and use cases</p> <p>Finalised various sections ready for review</p>
<b>0.2</b>	8 Sep 17	<p>Draft for initial feedback</p> <p>Updated with SME changes</p> <p>Inserted Sections 2.4, 2.5, 2.6 and 2.7</p>
<b>0.1</b>	15 Aug 2017	Internal only