



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 includes 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 the permission model

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

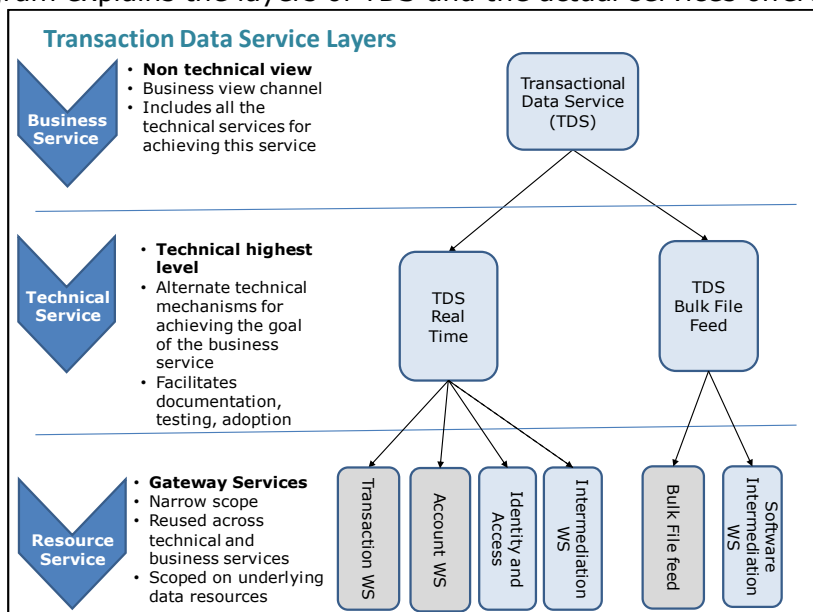
Transaction Data Services (TDS) is a business service that consists of various technical services, which in turn rely on parts of the Gateway Services suite.

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.

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

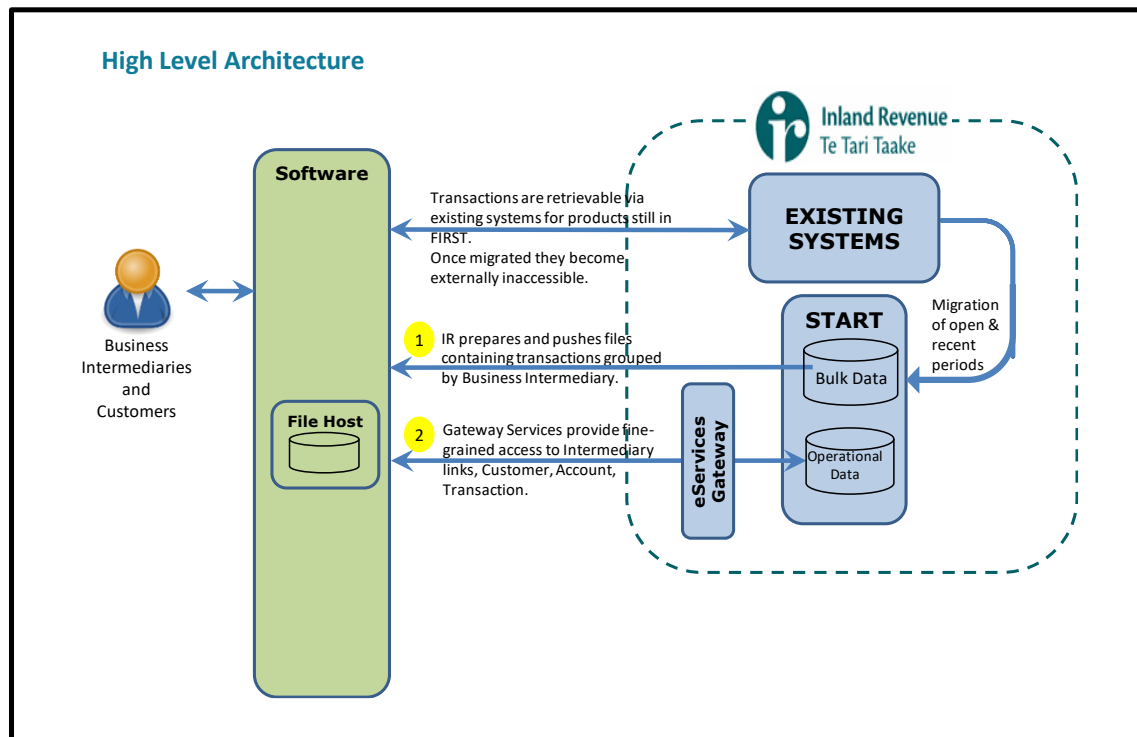


**Figure 1. Transaction Data Services Layers**



## 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 TAWS to TDS:



**Figure 2. High Level Architecture**

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

Technical Service	Description
1. Bulk File Feed of Transaction Data	<p>The Bulk File Feed is an asynchronous file feed that pushes new transaction data to Business Intermediaries 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> <p>This file is produced by a process running at a time after the completion of the IR daily batch process which posts transactions from the previous online day. It cannot therefore be relied on to be sent to Service Providers by the start of the IR online day.</p>
2. Real Time Feed of Transaction Data	<p>The Real Time Feed gives access to transaction data to Business Intermediaries 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>These web services, as the name suggests, are synchronous transactions giving a real time reply of the actual data as held in the IR backend.</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.

### 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.

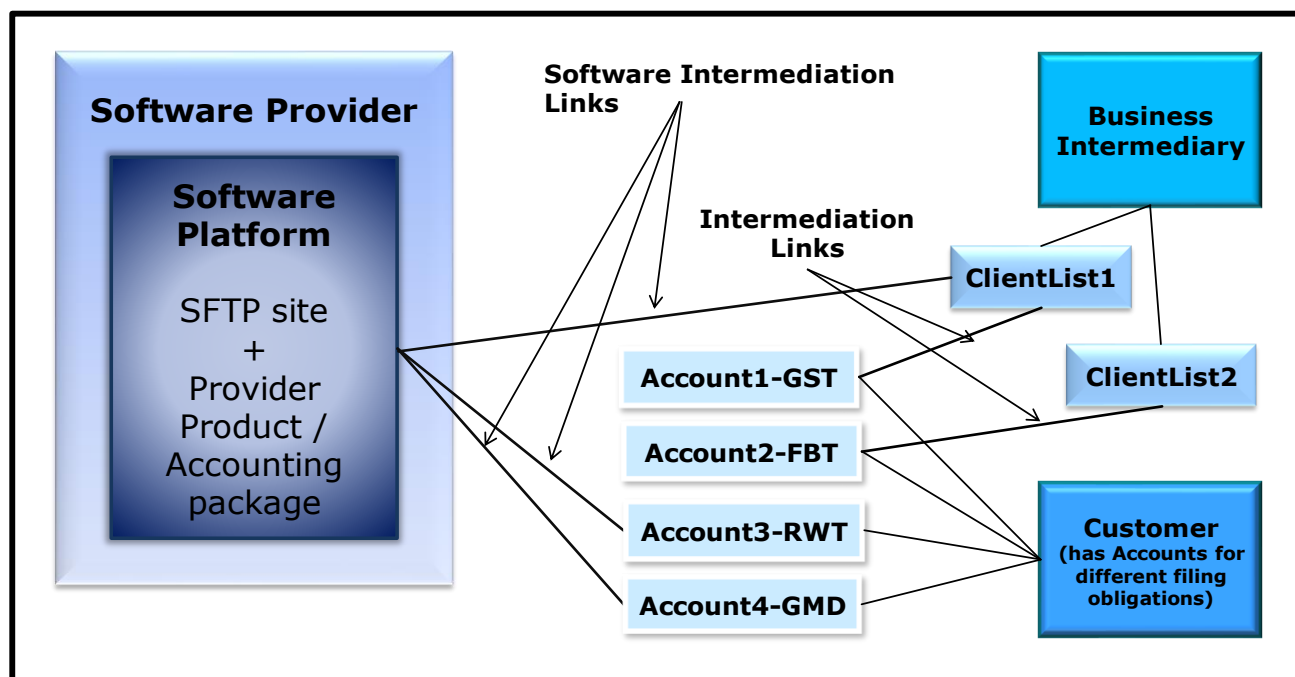
For detail on the nature and structure of data exchanged please see Section 0 below.

Entity in interaction	Description
<b>Business Intermediary</b>	<p>A Business 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>• Payroll Bureau</li> <li>• Bookkeeper</li> <li>• Tax Agent</li> </ul>
<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, e.g. 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 must have permissions delegated to look at the Customer data, as explained in the Delegation section 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>



Entity in interaction	Description
<b>Intermediation</b>	Intermediation is the process of linking a Business Intermediary with an individual or organisation to enable that Intermediary to act on behalf of for tax purposes. The actual web service is Intermediation, but this is also referred to as Client Intermediation.
<b>System Customer Record</b>	System Customer Records in Inland Revenue serve a broader purpose than the above definition of Customer. This includes: <ul style="list-style-type: none"> <li>System Customer Records for potential Inland Revenue Customers – as defined above. There are rare 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.</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>	Inland Revenue through myIR portal allows Inland Revenue Customers (tax entities) and Business Intermediaries 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.
<b>Software Intermediation</b>	The Software Intermediation service provides the ability for Software Providers to link to their Customers and Business Intermediary Client Lists in order to receive the bulk feed of their transaction data. The Software Intermediation service allows these links to be established, queried, or removed.
<b>Software Platform</b>	To interact with TDS the Software Provider needs to register a software platform with Inland Revenue through an onboarding process. For more information on the Onboarding process, refer to the <b>Getting started guide</b> on IR's <b>Software providers</b> page on <a href="http://www.ird.govt.nz">www.ird.govt.nz</a>
<b>Software Provider</b>	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.
<b>Transaction Data Services</b>	TDS allows Business Intermediaries 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).  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 Business Intermediary Client List or Customer Accounts to enable access their transaction data.  This linking is referred to as Software Intermediation.

**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. A software platform can be linked to a Business Intermediary's Client List and will then get all the data for the customers' accounts for that Client List. The intention is that permissions are then applied in the software platform to select what is visible to specific individuals.
2. Customer data where the Customer itself is looking at the data 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.

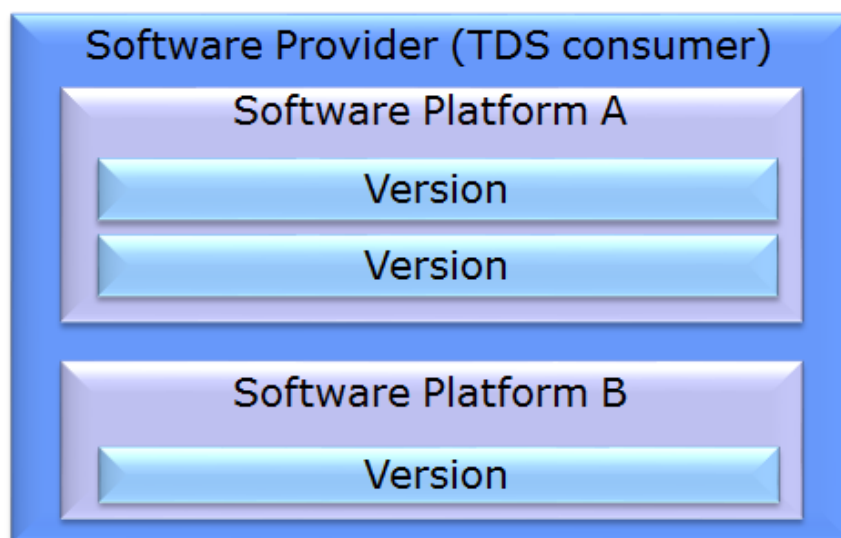
For either pathway the person/user establishing the link with the software platform needs to have delegated permission, through a myIR Logon, to do so by being set up as an owner or administrator for that party.

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.





**Figure 4. Software Platforms**



### 1.5 Related Documents

The following table lists the documents supporting the TDS solution:

Name	Description
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="#">TDSBulkFileFeed</a>	Describes the technical requirements and specifications, processes and sample payloads for the TDS Bulk File Feed.
<a href="#">TDSRealTime</a>	Details the technical requirements and specifications, processes and sample payloads for the TDS Real Time 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 Business Intermediary Client Lists/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 Business Intermediaries and Clients to enable these links to be used by the TDS Real Time queries.

**Table 3. Related Documents Descriptions**

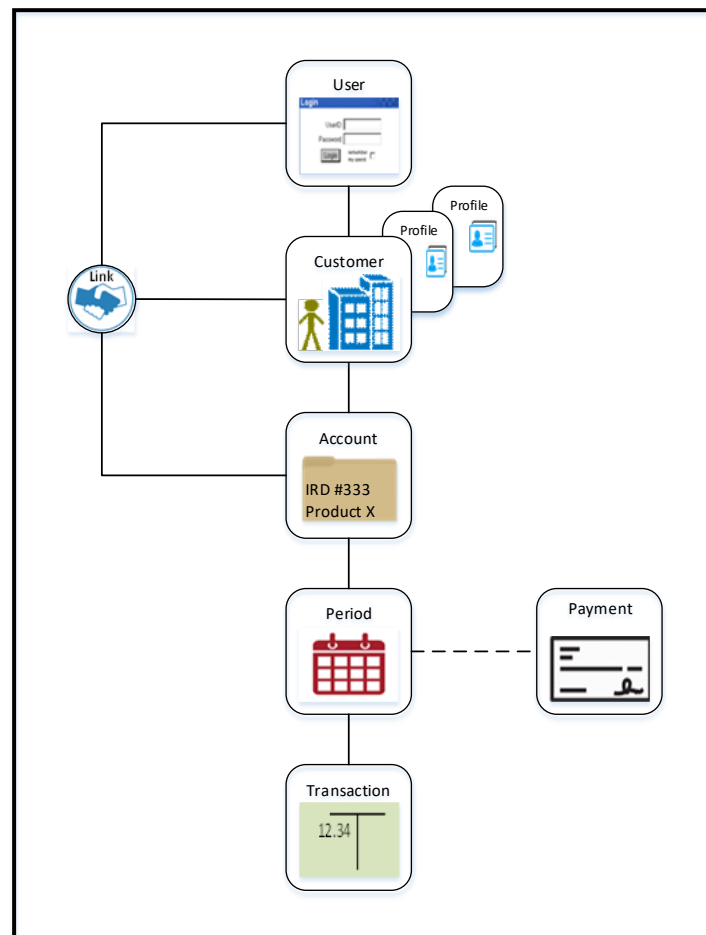
*Note: Build Packs are available on the website here:*

[TDS Build Packs](#)

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

Entity	Description
<b>Customer</b>	<p>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 for any of the other entities to be present. A Customer is a person (Individual) or an organisation (non-individual) 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 Business Intermediary 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 Business Intermediary 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 Business Intermediary) but can be Linked to Accounts belonging to other Customers.</p> <p>A User cannot exist without a System Customer record.</p> <p>In a software provider platform, a user there might not necessarily have an Inland Revenue myIR logon, 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 Business Intermediary linked to INC only for a Customer.</p>
<b>Link</b>	<p>Links allow Business 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 Business Intermediary.</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>
<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>
<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 no assessment. The payment is locked to ensure it cannot be applied against another outstanding amount.</p>

**Table 4. Data Entity Descriptions**

Note: Data Scenarios showing periods, transactions and payments are available on the website here:

[Data Scenarios](#)



## 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 i.e. subsidiary locations for one entity e.g. 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	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
<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	Char	8
<b>Period Begin</b>	The first day of the period, or, if it is the first return for a specific account type, the start date for that account type	Date	8
<b>Period End</b>	The last day of the period or, if it is the final return for a specific account type, the end date for that account type	Date	8
<b>Filing Period</b>	Same as Period End – last day of period	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 the Period since the time of the last posted Penalty transaction, as at the date the file was created plus 1 day. The extra day is added for the Bulk file to allow for the time lag of sending and processing the file.</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. The extra day is added for the Bulk file to allow for the time lag of sending and processing the file.</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
<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. The extra day is added for the Bulk file to allow for the time lag of sending and processing the file.</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



Attribute	Description	Data Type	Length
<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. The extra day is added for the Bulk file to allow for the time lag of sending and processing the file.</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. To ascertain if there have been any further transactions since the last set of data, compare the current Activity date to the Activity date in the last set of data received for the same period	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
<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>Transaction ID</b>	The unique identifier for the transaction in the current list of transactions	String	30



Attribute	Description	Data Type	Length
<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>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 ID for 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	String	3
<b>Bill Due Date</b>	The due date for the Bill	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 this Bill since the time of the last posted Penalty transaction, as at the date the file was created plus 1 day. The extra day is added for the Bulk file to allow for the time lag of sending and processing the file.</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





Attribute	Description	Data Type	Length
<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. The extra day is added for the Bulk file to allow for the time lag of sending and processing the file.</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. The extra day is added for the Bulk file to allow for the time lag of sending and processing the file.</p> <p>In the Real Time Query this is the <b>additional</b> amount of Other forecasted for the Bill for the date of the request, since the time of the last posted Other transaction.</p>	Currency	8
<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. The extra day is added for the Bulk file to allow for the time lag of sending and processing the file.</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>			



Attribute	Description	Data Type	Length
<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> <p>Note: In the History file in some cases (like old closed periods, or zero amounts, or superseded transactions) there will be no equivalent transactions created during migration and therefore no newTxID present here.</p>	String	30
<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>	File included with each file set that includes both of: <ul style="list-style-type: none"> <li>Which Business Intermediary Client Lists 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>	File included with each file set that includes: <p>Which Customer accounts (accounts of clients of a Business Intermediary) are linked to the Tax Agent (that are linked to the Software Provider through Software Intermediation links)</p>

**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.

## 2.4 Accounts

### 2.4.1 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

### 2.4.2 Being migrated to START or commencing in START as of April 2018

FIRST Tax Type	START Account Type	Description	Notes	Amount of data available
<b>DWT</b>	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
<b>RWT</b>	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	
<b>NRT</b>	NRT	Non-Resident Withholding Tax		



FIRST Tax Type	START Account Type	Description	Notes	Amount of data available
<b>IPS</b>	IPS	RWT deductions on interest	debit' or 'Return Credit' transaction. The annual reconciliation return will post 'Annual return debit' or 'Annual return credit'.	
<b>RLT</b>	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.	
<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</b> <b>FBA</b> <b>FBI</b>	FBT	Fringe Benefit Tax FBA – Annual FBI–Income Year	Migrating as FBT and will have 3 assessment codes and the possibility of two assessments in one period.  The normal quarterly return will have 'Return debit' or 'Return credit'.  The annual return will have 'Annual return debit' or 'Annual return credit'  The income year return will have 'Income year return debit' or 'Income year return credit'	All periods ending 30-Apr-2015 and onwards and prior periods which were still open at the time of conversion
<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.	
	MPO (also known as BPA)	Multi Payment Option	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.  When credited to the individual accounts there will be an MPO Payment Type code and description associated with the transaction.	No data will be migrated. This account will start from a point in time.



#### 2.4.3 Being migrated to START or commencing in START as of April 2019

FIRST Tax Type	START Account Type	Description	Notes	Amount of data available
<b>INC</b> <b>ICA</b> <b>MAC</b>	INC	Income Tax Imputation Credit Account Maori Authority Credit Account	ICA and MAC transactions will be in the INC account in START.  This includes transactions for converted INC accounts	All periods ending 31-Mar-2015 and onwards and prior periods which were still open at the time of conversion
<b>FAM</b>	FAM	Working for Families Tax Credits	New Credit Entitlement transactions will appear in the FAM account; these are weekly or fortnightly and are refunded to the customer. The end of year square-up assessment transaction includes FAM entitlements from both IR and MSD.	All periods ending 31-Mar-2015 and onwards and prior periods which were still open at the time of conversion
<b>REB</b>	REB	Tax credits – donations, childcare, housekeeper		All periods ending 31-Mar-2015 and onwards and prior periods which were still open at the time of conversion
	TPA	Tax Pooling	Payment and deposit offset transactions will be available in TDS.	The remaining credits existing at the time of conversion, will be converted over with their amounts and effective dates

#### 2.4.4 Being migrated to START or commencing in START as of April 2020

FIRST Tax Type	START Account Type	Description	Notes	Amount of data available
<b>SLS</b>	SLS	Student loans		All periods ending 31-Mar-2007 and onwards and prior periods which were still open at the time of conversion

**Table 7. Accounts available in START**

#### 2.4.5 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.

The Individual (IIC) and Non-individual (ITN) tax types are combined and presented as tax type INC in the TDS online and bulk file feeds.

Current Accounts will become available through TDS as they are migrated to Inland Revenue's START system.



## 2.5 Business Rules and Interpretation of Transaction Data

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*

#### 2.5.1.1 Allocation File Process

START uses data from the Allocation File to update automated START transfer transactions with FIRST source or destination data. Updates occur 24-48 hours after the transfer took place.

Although FIRST source or destination data for some transfer transactions will not be present in the Daily Bulk File feed, depending on timing, Allocation File updates may be in time for the data to appear in the Weekly Bulk File feed. If not in time, a TDS Real Time query carried out 48 hours after the transfer took place should contain the FIRST source or destination data.

#### 2.5.1.2 Transfers within START (all BT releases)

Automated transfers within START will already have the IRD Number, account type and period, without requiring the Allocation File Process to have run.

#### 2.5.1.3 Effect of missing transfer data in FIRST

TDS can only provide information held in START. If a problem exists where FIRST doesn't hold source or destination data (whichever applies) for a transfer, then START will inherit that gap in data, as will the TDS feed for that transfer transaction.

#### 2.5.1.4 Staff initiated transfers and converted transfer transactions

Unless affected by missing FIRST data, staff initiated transfers, and transfers converted from FIRST to START, will already have the FIRST source or destination data, without requiring the Allocation File Process to have run.

### 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.

#### 2.5.2.4 Provisional Tax Assessments

At the time of conversion there will be a separate transaction for each instalment of provisional tax due for a return period including converted return periods; each will have its own Bill with a due date.

When the return is later posted to the customer's account another Bill is created to facilitate payment of any terminal tax to pay. Where there is no terminal tax to pay, that Bill will still be created but it will be for an amount of zero.

#### 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 several bill items to enable correct calculation of penalties for the due date of the bill. TDS will record against most transactions the bill to which it relates and will also provide Bill reconciliations for each Period.

The Bill number is a 30-digit string and in addition, for TDS a Bill ID for display is sent as well. The Bill ID for Display will be in the form 001, 002, 003 etc.

Transactions relating to a Bill will be listed together in all TDS files.

There are circumstances when a transaction does not have a Bill Number and these transactions will be listed after the Bill detail. Such circumstances are:

- Transfer in
- Payment
- Converted payments
- Converted transfers
- Converted credit interest
- Return credit assessment for GST for periods prior to 1 May 2018 (including prior to April 2017). After Release 2 in April 2018 (for all periods ending after 30 April 2018) these transactions will have a Bill Number. Prior transactions will remain without a Bill Number.

#### 2.5.4 GST Credit Assessments

For GST Periods ending prior to 1 May 2018 where there is a credit assessment it will show as Credit rather than Assessment AND each credit (which is an assessment) will have a corresponding debit for \$0.00 recorded. For periods from Release 2 (April 2018) a credit assessment will show as an Assessment transaction in the Bill and there will be no Debit transaction for \$0.00 recorded. 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 Inactive Transactions

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.

### 2.5.9 New START Account Type for Tax Pooling

Tax Pooling transactions will be available in TDS under a new START account type “TPA”.

### 2.5.10 Tax Types no longer available from 1<sup>st</sup> April 2019

There are three historic tax types that are not being converted to START; QCT, WPN and WPE. Data for these tax types will not be available via TDS.

### 2.5.11 Late Filing Penalty

As of 1<sup>st</sup> April 2019, where a Late Filing Penalty is reassessed to a larger amount, the penalty transaction will be reversed and reposted as occurs currently. A new Bill with a new due date will be created for the *total* amount of the penalty.

### 2.5.12 Working for Families Tax Credits (WfFTC)

#### 2.5.12.1 Weekly or Fortnightly Entitlements

At the time of conversion an entitlement credit transaction will appear in the FAM period with a corresponding disbursement transaction which will leave the account with a zero balance.

This includes converted years that have not had an end of year calculation.

#### 2.5.12.2 End of Year Calculation

Any FAM credit that remains after offsetting the corresponding INC liability will be disbursed from the FAM account (and vice versa for any INC credit after offsetting any corresponding FAM liability).

### 2.5.13 Imputation Credit Account (ICA) and Maori Authority Credit Account (MAC)

From 1<sup>st</sup> April 2019 ICA and MAC transactions will be in the INC account in START. This includes transactions for converted INC accounts.

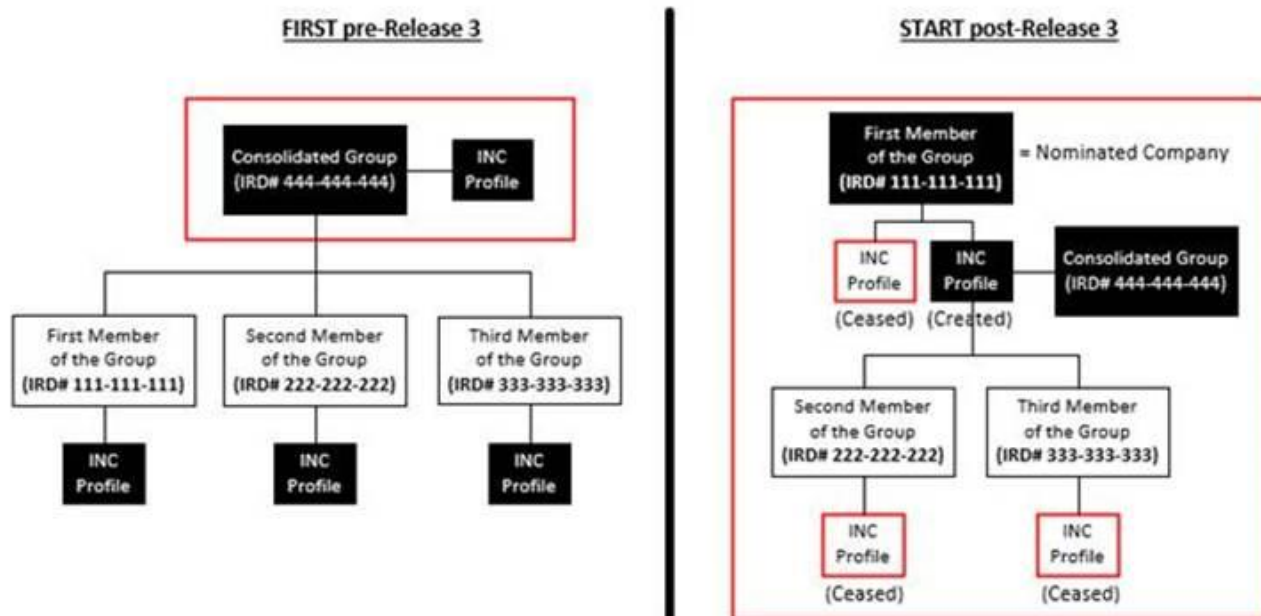
### 2.5.14 Consolidated Groups

With income tax moving from FIRST to START as part of Release 3, there was a change made with respect to how consolidated group information would be viewed and managed in START.

Under START, the income tax account for a consolidated group is now viewed and managed under a **nominated company** – that is, one company with its own IRD number that makes up the consolidated group.

The consolidated group will no longer appear under its own company with a separate IRD number – please refer to the new consolidated group structure map below which explains the change.





In START, a customer can have more than one income tax account. This means that a 'new company' doesn't need to be created when a consolidated group is established or a change occurs within the group.

At Release 3 cutover, each existing 'consolidated company' income tax account in FIRST was moved under a nominated company's IRD number in START. Going forward, instead of creating a 'new company', a new profile type is created in START to track the consolidated group.

More importantly, the existing IRD number for the consolidated group will still be the same IRD number that the group uses for payments and viewing their relevant account information.

#### 2.5.15 Student Loans Long-Term Loan transactions vs. Assessment transactions

Certain transaction types in START are used to maintain the Long-Term Loan balance, whereas others are used in relation to the Assessment itself.

#### 2.5.16 Student Loans Long-Term Loan and return periods

Although the Long-Term Loan endures for longer than a return period, the transactions related to it are associated with a return period. This is because there are linkages between Long-Term Loan and Assessment transactions.

#### 2.5.17 Student Loans Opening and Closing Balances for Student Loan Periods

There will be an Opening Balance transaction posted to the Long-Term Loan shortly after the beginning of each tax year. For example, the Opening Balance transaction for the 31/03/2021 tax year would be posted to the Long-Term Loan in April 2020.

A Closing Balance transaction (for the sum of the loan balance and any interest) is posted to the Long-Term Loan at the end of the tax year. For example, the Closing Balance for the 31/03/2021 tax year would be posted to the Long-Term Loan in April 2021.

The Closing Balance for one tax year is rolled forward as the Opening Balance for the following tax year.

#### 2.5.18 Student Loans Assessment and Loan Balance

When a "Return debit" transaction (an assessment) is posted, a corresponding "Loan assessed" transaction is posted to the Long-Term Loan, reducing the loan balance by the amount assessed.



### 2.5.19 Student Loans Interim Assessments changing to Provisional Assessments

The existing START transaction type "Provisional instalment" is being used for what was previously known as an "Interim Assessment".

Provisional instalment transactions have their own Provisional Assessment Bill in START; one Bill for each instalment date.

### 2.5.20 Student Loans Bill Items

The following have their own Bills in START;

- Long-Term Loan Balance
- Student Loan Assessment
- Provisional Assessment

Bills are at a point in time and can change.

## 2.6 START Transaction Codes

Due to its size, this table resides in a separate spreadsheet "All Transaction Types with Period Impacts" on the GitHub.

## 2.7 Data Integrity

Inland Revenue will be providing all transaction data via TDS for the Account Types identified in this document 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, Business Intermediaries and Customers are provided with the most up to date and accurate data possible.

The TDS Bulk file may not be shipped from IR by the time the online day begins. When they are eventually shipped, these files will be processed by the receiving Software Provider into their own systems. This means there may be occasions where the IR transaction data is not available for Service Provider clients until later in the day following the IR daily batch.

The TDS Real Time services provide a capability to mitigate any impact this lag may cause to Service Provider's clients.

Should a Software Provider client require assurance that the data they are viewing is fully up to date then the suite of TDS Real Time services can be used. These services read from the core IR financials system so reflect the up-to-date view of transactional data.

There is a hierarchy inherent in the IR data structures: A Customer has Account(s), each Account is made up of Periods, and each Period has Bills and Transactions.

The Real Time transactions reflect this structure:

1. Account.RetrieveAccountSummaries lists all Account types for a Customer
2. Account.RetrievePeriodSummaries lists all the Periods for an Account
3. Transactions.RetrieveList provides all the Bills and Transactions for an Account Period

Service Providers can use these calls to keep their software up to date by storing the latest date for each level of this hierarchy and comparing this with the values supplied by IR using the following logic:

Call Account.RetrieveAccountSummaries for a Customer IRD number

*<This gives all the Accounts owned by a Customer>*

For each Account where fields **maxActivity** or **balance** do not match the dates stored by the Service Provider software then

Call Account.RetrievePeriodSummaries for each Account.

*<This gives each Period for an Account>*



For each Period where fields **activity** or **balance** do not match the dates stored by the Service Provider software (or Period **activity** = Account **maxActivity**) then

Call Transactions.RetrieveList for the Account and Period

<This gives all the Bills and Transactions for that Account and Period>

Transactions with a **postedDate** equal to the **maxActivity/activity** Date for the account or period respectively are new

A Service Provider may wish to provide their clients with a refresh capability to select Customer(s) to update at will.

This is a Service Provider design decision and IR accepts this usage pattern as valid.

It is also technically possible to loop through this logic for every Customer linked to every one of their Intermediary Client Lists on a regular basis. IR does not support this usage pattern and does have the ability to throttle usage of this Real Time service should it be deemed to adversely impact other users of IR systems.

### 2.7.1 Channel Consistency

It is possible for a Client of a Business 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.*

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

Data Scenarios showing periods, transactions and payments are available on the website here:

[Data Scenarios](#)

- Late Payment Penalties
- OUM Over Time
- Reassessment
- Default Assessment
- Transfer
- Writeoff
- TPA
- AIM with penalty and interest
- REB
- Remission
- Payment



- FBT
- GSD
- RWT
- DWT
- Multiple prov tax assessments
- FAM

## **2.9 Data Conversion to START**

The conversion of Inland Revenue data can cause the situations identified below.

### *2.9.1 Penalty transactions*

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

### *2.9.2 Increased debit reassessments*

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

### *2.9.3 Mechanism for checking for missing transactions*

TDS is offering a 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.

### *2.9.4 Conversion Scenarios*

Conversion Scenarios are available on the website here:

[Conversion Scenarios](#)



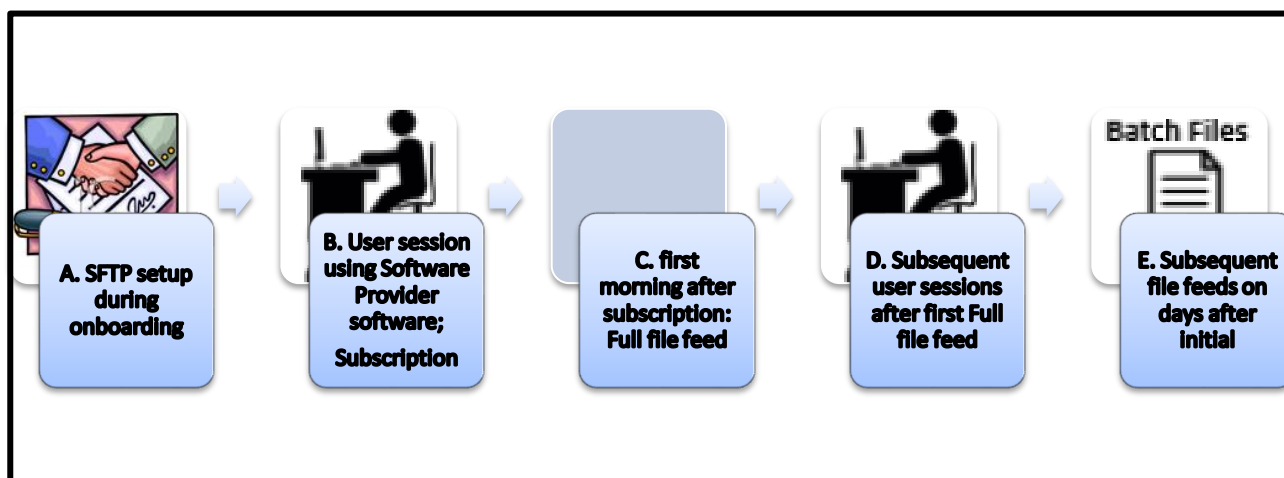
### 3 Overall typical sequence of events

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.

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 High level typical bulk feed sequence

The overall sequence is described below:



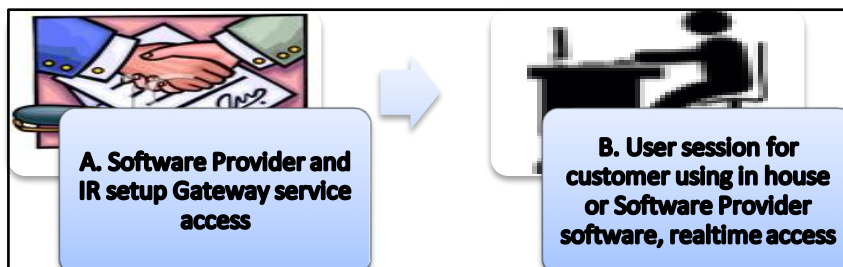
**Figure 6. Sequence of Bulk File Feed**

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 onboarding refer to the **Getting started guide** on IR's **Software providers** page on [www.ird.govt.nz](http://www.ird.govt.nz).
- **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 a Business Intermediary Client List 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..
- **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 logon.

### 3.2 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.



**Figure 7. 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.

## 4 Onboarding

Information in this section is Onboarding information that relates specifically to TDS.

For the full overview of the process of onboarding with IR, refer to the **Getting started guide** on IR's **Software providers** page on [www.ird.govt.nz](http://www.ird.govt.nz)



## 5 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.

### 5.1 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
  - Business Intermediaries have equivalent delegation set up to their myIR Logons for their staff – this was set up in 2018
- **Intermediation Linking:** Customer Accounts are linked through Client Lists for a Business Intermediary in myIR – these links are visible via Intermediation Service.
- **Software Platform linking:** This linking subscribes a specific Business Intermediary Client List 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 correlate with myIR Logon permissions as set up in myIR portal delegation: Inland Revenue supports a few variations.

### 5.2 Summary of relationship types

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

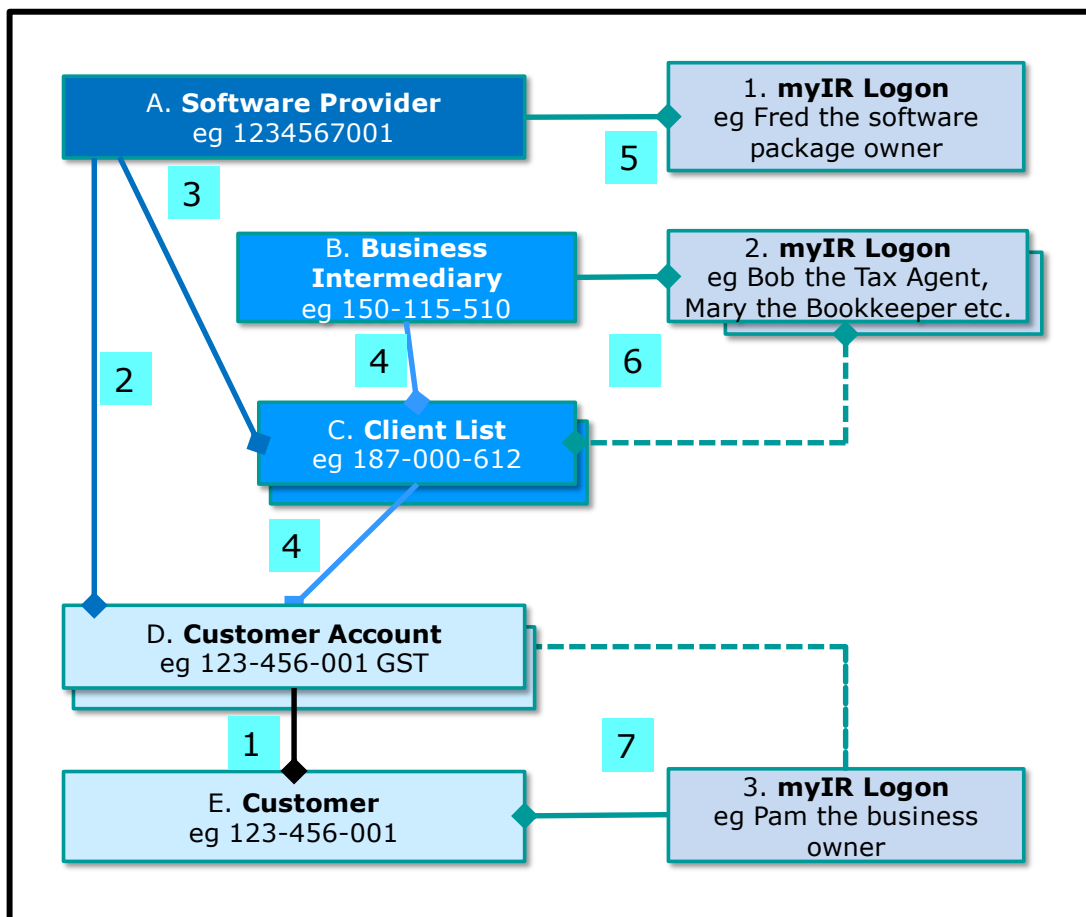


Figure 8. TDS Key relationship types





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 Business Intermediary involved.
<b>3</b>	A-C	Software Intermediation link for Business Intermediary	To subscribe for bulk updates of Customer Account data linked to a Business Intermediary (via Client Lists) to be sent to a Software Platform when there is a Business Intermediary involved.
<b>4</b>	B-C C-D	Business Intermediary Client Lists  Client Lists Linked to Customer Accounts	All Business Intermediary access to Customer Transaction Data is grouped under Client Lists. A Business Intermediary 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	Business Intermediary myIR Logon delegation	Logons are set up to allow access to administer Business Intermediary Links through myIR and Gateway Services.  Each such User ID is first associated with the Business Intermediary. This link has an Access Type (Role). Owner and Administrator users can establish and break Intermediation links.
<b>7</b>	3-E	Customer myIR Logon delegation – when there is no Business Intermediary involved.	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.  This link has an Access Type (Role). Owner and administrator users can establish and break Software Intermediation and Intermediation links.

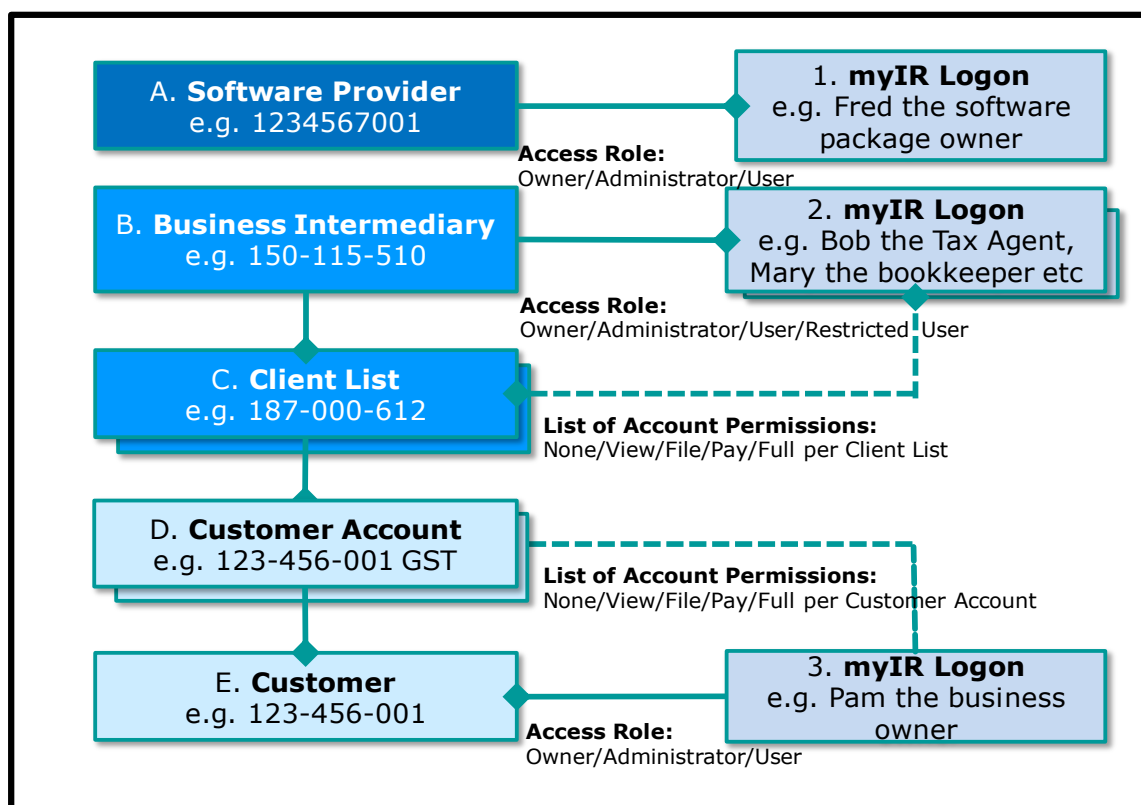
**Table 9. TDS key Relationship Types**





### 5.3 myIR 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 Business Intermediary 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 Business Intermediary's own internal Accounts. As of April 2018, myIR will also allow the online administration of such Account permissions for Business Intermediary Client Lists.
- A myIR Logon is given permission on a Customer / Business Intermediary / Software Platform with an Access Role. For Customer or Business Intermediary there is then finer grained access control that is applied with Account Permissions in an Access Control List.



**Figure 9. MyIR Logon delegation Permission model**

#### 5.3.1 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 alternatively keep separate myIR logons for a user per location/profile/Account.



### 5.3.2 Business Intermediary delegation management

- Customers of Business Intermediaries are arranged in one or multiple Client List(s). Inland Revenue Account Managers should be contacted to create new Client Lists.
- For more details, refer to the Intermediation service Build Pack.

### 5.3.3 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>	Can administer Access Role delegation on Customer  Can administer Account Permissions delegation on all Customer Accounts	Can administer Access Role delegation on Tax Agent  Can administer Account Permissions delegation on any Client Lists	Can create administrators  Can create users  Can list links and can delink
<b>Administrator</b>	Can administer Access Type delegation on Customer  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	Can administer Access Role delegation on Tax Agent  Can administer Account Permissions on any Client Lists not given None access level on	Cannot create administrators  Can create users  Can list links and can delink
<b>User</b>	Only permissions as defined by Access Role per Customer Account  No administration of Access Role or Account Permission delegation.	Can link and delink Customer Accounts to any client lists not given None access level on  Permissions as defined by Account Permissions per Client List  No administration of Access Role or Account Permission delegation.	Cannot create administrators  Cannot create users  Can list links and delink



Access Type	Customer delegation	Tax Agent Delegation	Software Platform
<b>Restricted User</b>	Same as User	Cannot link and delink Customer Accounts  Cannot request financial transfers of client payments and/or credits  Otherwise same as User	Same as user

**Table 10. MyIR Logon delegation Access Types/Roles**

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

### 5.4.1 Software intermediation

- In order to receive the bulk file content a link needs to be established between the Software Platform and the Tax Agency Client List or Customer Accounts.
- For more details, refer to the Software Intermediation Build Pack.



## 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 Intermediary</b>	A party who interacts with Inland Revenue on behalf of a Customer. Inland Revenue's Customer is a Client of the Business Intermediary. There are several types of Intermediary including Tax Agents, Payroll Bureaus, Payroll Intermediaries, Bookkeepers etc.
<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.



Acronym/Term	Definition
<b>IAS Build Pack</b>	Identity and Access Build Pack
<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 Services in computer networks.
<b>Solution</b>	The technology components, systems and interface specifications constituting the TAWS capability which enables integration and communication across the Gateway channel between Inland Revenue and Tax Agents for the purpose of providing the Service.



Acronym/Term	Definition
<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

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## **Appendix B - Filing Frequency Codes**

The table in this Appendix has been removed as it has become too large with the addition of Release 3 filing frequencies. A separate spreadsheet "Filing Frequencies by Release" has added to the GitHub instead:

[filingfrequencies](#)

## **Appendix C - START Transaction Codes**

Due to its size, this table resides in a separate spreadsheet "All Transaction Types with Period Impacts" on the GitHub.

The spreadsheet includes the MyIR decode for each Transaction Type and the impact of the transaction on a return period e.g. credit, assessment etc.



## Appendix E – Bank Standards

Attribute	Description	Data Type	Length
<b>NZBankStandard</b>			
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
<b>NZ Bank Credit Union</b>	Uses NZ Bank Standard and add an additional field		
Reference Number	Reference number for Credit Union account transaction	String	12
<b>AUS Bank Standard</b>			
BSB	Corresponds to bank ID, bank branch, state where bank is	String	6
Account	Account Number	String	9
<b>US CAN Bank Standard</b>			
Routing Number	Used to identify the specific bank	String	9
Account Number	Number of the bank account	String	17
<b>SWIFT IBAN Bank Standard</b>			
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
<b>Other Bank Standard</b>			
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 – Possible FIRST Transfer Codes

Tax type code	Short description
CSE	Child support (NCP employer)
KSE	KiwiSaver Employee Deductions
KSR	KiwiSaver Employer Contributions
KSF	KiwiSaver Provider Payment
PPL	Paid Parental Leave
NCP	Child Support (Liable Parent)
CPR	Child Support (Receiving Carer)
SLS	Student Loans (Student)
FAM	Working for Families Tax Credits
QCT	Qualifying Company Election Tax
SHR	Shareholder Premium
SSC	Employer Superannuation Contribution Tax
WPE	Foreign Dividend Withholding Elected
WPN	Foreign Dividend Withholding Non-Elected
IPS	Resident Withholding Tax on Interest
DWT	Dividend Withholding Tax
NRT	Non-Resident Withholding Tax
RLT	Resident Land Withholding Tax
GST	Goods and Services Tax
GMD	Gaming Machine Duty
INC	Income Tax
PIE	Portfolio Investment Entity Tax
AIL	Approved Issuer Levy
FBT	Fringe Benefit Tax
FBA	Fringe Benefit Tax (Annual)
FBI	Fringe Benefit Tax (Income Year)
ICA	Imputation Credit Account
IPE	Resident Withholding Tax on Interest (exempt recipient)
RWT	Resident Withholding Tax on Specified Dividends
REB	Tax Credit Claim form (formerly Rebates)
MAC	Maori Authority Credit Account
CRS	Common Reporting Standard
AIP	Account Information Provider
MPO	Multi Payment Option (also known as Bulk Payment Account)



## Appendix G - Document History

This table lists all changes that have been made to this build pack document since version 1.0.

Version	Date	Description
1.9	06082020	<ol style="list-style-type: none"> <li>Updated 1.2 - Table 1 Business Services in TDS</li> <li>Updated wording for each instance of Penalty Forecasted, Interest Forecasted, Other Forecasted and Credit Forecasted in 2.2</li> <li>Updated 2.7 Data Integrity</li> </ol>
1.8	27092019	<ol style="list-style-type: none"> <li>Updated 2.4.4. to include periods being converted for Student Loans.</li> <li>Added sections 2.5.15 to 2.5.20 relating to Student Loans.</li> <li>Updated 2.6 and Appendix C to refer to updated list of Transaction Types on the GitHub.</li> </ol>
1.7	26082019	<ol style="list-style-type: none"> <li>Updated definitions of Period Begin and Period End in section 2.2.</li> <li>Gave the tables in section 2.4 subsection headings 2.4.1, 2.4.2 and 2.4.3 to make it easier navigate to each table. Also corrected an error in table 2.4.3 where it referred to periods 30-Apr-2015 for FAM and REB; this has been corrected to 31/03/2015.</li> <li>Updated section 2.5.1.</li> <li>Added section 2.5.14 Consolidated Groups.</li> <li>Removed table from Appendix C as getting too large now that MyIR decodes and period impact columns included. Therefore added a link to the new Transaction Types spreadsheet on the Github.</li> <li>Updated Appendix F to include KSF and PPL.</li> <li>Remove reference to TAWS and History file as all TAWS customers have now been on-boarded.</li> </ol>
1.6	25032019	<ol style="list-style-type: none"> <li>Updated the Version column in this table to show what the version should have been since the 1.0 version – rather than having a date as a Version Number</li> <li>The TDS solution for Release 3 has been extended to cater for additional Business Intermediaries. Hence all references to "Tax Agent" have been changed to "Business Intermediary"</li> <li>Changed all references to Tax Agent Web Services to TAWS after it is first mentioned in Section 1</li> <li>Section 1.4 Fundamental concepts: Made various updates to the table</li> <li>Section 1.5 Related Documents: Updated the table that lists all the documents - removed diagram as the table on its own is enough.</li> <li>Section 2.9 Data Conversion to START: Removed the words "from Tax Agent Web Services" as implies data is being converted from TAWS, which is not the case.</li> <li>Replaced the embedded Data Scenarios (section 2.8) and Conversion Scenarios (section 2.9) spreadsheets with links as these are on the GitHub</li> <li>Section 3 Use Cases: Changed the title from Use cases to Overall typical sequence of events</li> <li>Section 3.1 High Level Typical Bulk Feed Sequence - updated wording</li> </ol>



		<p>10. Section 3.3 Use Cases - removed this section as the document was becoming too large. These use cases are available in a separate document if required.</p> <p>11. Section 4 Processes removed this section as the document was becoming too large. These use cases are available in a separate document if required.</p> <p>12. Section 4 became Onboarding. Updated to include a link to IR's Software providers page as this covers off the process of Onboarding</p> <p>13. Section 4.1 Initial bulk linking updated to remove information that is covered off on IR's Software providers page</p> <p>14. Section 5.1 Relationship types updated wording</p> <p>15. Updated the following diagrams; Figure 2 (section 1.2), Figure 3 (section 1.4), Figure 8 (section 5.2), Figure 9 (section 5.3),</p> <p>16. Section 5.3.2 Business Intermediary delegation management - updated wording</p> <p>17. Section 5.4 Summary of links... - updated wording</p> <p>18. Appendix A Glossary - updated wording</p> <p>19. Appendix B Filing Frequency Codes - included link to GitHub</p> <p>20. Appendix C START Transaction Types - added types ADJAWO and AIMDBT</p>
1.5	19122018	Table removed from Appendix B as it was becoming too large - a separate spreadsheet "Filing Frequencies by Release" has been created instead.
1.4	25102018	Appendix C START Transaction Types table updated. New transactions added, and those not being used removed. Additional column added to the table to denote which TDS data item bucket the transaction falls into e.g. Tax, Credit, Interest, Penalty, or Other.
1.3	09102018	<p>Updates made for Release 3:</p> <ul style="list-style-type: none"> <li>Added the April 2019 table to section 2.4</li> <li>Added new sections 2.5.2.4, and 2.5.10 through to 2.5.14 inclusive</li> <li>Added Release 3 scenarios to section 2.8</li> <li>Removed last bullet point in section 6.3 re supply of Permissions file</li> <li>New START Transaction Codes for Release 3 added into Appendix C, highlighted in yellow</li> </ul> <p>The following START Transaction Codes have been removed from Appendix C as more generic reversal codes are being used instead: BPAXFBREVCRD, BPAXFOREVOTC, BPAXFRREVCRD, DSBIBDREVOTC, FWDAILREVOTC, FWDALPREVOTC, FWDCRSREVOTC, FWDDWTREVOTC, FWDFTREVOTC, FWDGMDREVOTC, FWDIPEREVOTC, FWDIPSREVOTC, FWDNRTREVOTC, FWDPIEREVOTC, FWDRLTREVOTC, FWDRTREVOTC, PYMBKDREVCRD, PYMBLKREVCRD, PYMESTREVCRD, RECAILREVCRD, RECAIPREVCRD, RECCRSREVCRD, RECDWTREVCRD, RECFBTREVCRD, RECGMDREVCRD, RECIPEREVCRD, RECIPSREVCRD, RECNRREVCRD, RECPIEREVCRD, RECRLTREVCRD, RECRWTREVCRD.</p>
1.2	30092018	<p>Updated various sections to reflect the Software Intermediation link is between the Software Platform and Tax Agency <b>Client List</b> (previously the link was to the Tax Agent or Tax Agency). Changes highlighted in yellow.</p> <p>Updated the following Figures/Tables to also reflect this change:</p> <ul style="list-style-type: none"> <li>1.4 Figure 3</li> </ul>



		<ul style="list-style-type: none"> <li>• 6.2 Figure 17</li> <li>• 6.4.2 Tables 39, 40 and 41</li> <li>• 6.4.4 Table 45</li> <li>• 6.5.2 Figure 19</li> </ul> <p>Removed PRS account type from April 2018 table in section 2.2</p> <p>Also updated Max Period Activity in section 2.4 and 2.7 to note in regard to checking all transactions have been included in latest feed</p> <p>Appendix B:</p> <ul style="list-style-type: none"> <li>• Corrected account type from AIP to AIL</li> </ul> <p>Removed FATCA, IPE and PRS</p>
1.1	29042018	1.2 Update to description of History Feed to include when it will be produced other than initial one-off production.
	29052018	5.2.2 Corrected DR SFTP IP address to <a href="#">222.153.203.33</a>
1.0	12042018	<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>