

# Capabilities development

## **NPP message usage guidelines**

Utilising the structured data  
capabilities of the NPP for Payroll,  
Tax and Superannuation payments

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**Version 1.0**



**22 November 2019**

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## NPP message usage guidelines

### Development of NPP message usage for Payroll, Tax and Superannuation Payments

The NPP uses the ISO 20022 messaging format, the leading international standard for electronic data interchange between financial institutions or organisations that move money and data<sup>1</sup>. The ISO 20022 standard provides a set of comprehensive xml formatted messages, rich with both structured and unstructured data. The ISO 20022 message format can carry much richer information than the 18 characters currently available for BECS Direct Entry payments. With more than 1,400 data fields available in the ISO 20022 message, additional data can be carried end-to-end together with the payment or via a URL link or reference to externally hosted documents. Increasingly, markets around the world are adopting the ISO 20022 message standard for payments and financial transactions.

ISO 20022 provides a clear standard for organising data, so the specific data requirements of different payment types can be easily accommodated within the one standard message format. The structured data capabilities of the ISO 20022 message schema ensure that a common data lexicon or 'dictionary' can be established for particular payment types. Standard data structures for particular payment types provides assurance to both senders and receivers that associated payments messages are technically capable of being received and processed. Ingesting these common and consistent data elements into existing business processes and systems will support automation and straight through processing. This reduces error rates and exceptions, and the amount of manual reconciliation effort required, which results in overall efficiency improvements for end users and the industry as a whole.

By utilising the NPP's data and real-time capabilities, improvements could be made to how payments are processed today, for example:

- Reducing the time taken for payments to be processed (with no cut off times, 24 hours x 7 days) and real-time payment notification so the outcome of the payment is known
- Immediate funds availability allowing for optimisation of cash flow management
- Data specific to a payment type can be contained within the payment message, reducing the amount of manual reconciliation effort required. NPP payments can contain reconciliation data that aligns to other existing reporting standards and regulations, for example the Australian Taxation Office's (ATO) Single Touch Payroll (STP) reporting<sup>2</sup>
- Ability to utilise PayID for payments which provides confirmation of payee before the payment is made

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<sup>1</sup> [https://www.iso20022.org/payments\\_messages.page](https://www.iso20022.org/payments_messages.page)

<sup>2</sup> <https://www.ato.gov.au/Business/Single-Touch-Payroll/>



The use cases below further illustrate how the NPP could be used to deliver operational improvements for superannuation and payroll payments:

**Use Case 1 – Superannuation contributions**

**Situation today**  
 Due to the current time lag it can take for contributions to be processed to a members account, it is not uncommon for contribution payments that are made on the last few days of the financial year to miss the end of year cut off and fall within the new financial year contribution allocation. This can impact on a member’s voluntary or concessional contributions that can be made within a financial year.



**Scenario under the NPP**  
 Using the NPP for contribution payments means those payments could be instantly credited rather than incurring delays. The likelihood that contribution payments made in the last few days of the financial year falling into the allocation period for the new financial year would be reduced. The time that funds are “out of the investment markets” would also be reduced.

**Use Case 2 – Self managed super funds**

**Situation today**  
 The number of self managed super funds is growing. Currently the ATO maintains a register of ABN data for self managed super funds. However, when a superannuation payment is made, there is no mechanism in place to check that the payment is being made to the right account.



**Scenario under the NPP**  
 With the NPP, self managed super funds could register their ABN as a PayID and when a payment is made, the fund’s financial institution would be required to verify ownership of that ABN and that it is indeed owned by that self managed super fund and that the payment is being made to the right bank account linked to that particular PayID.

**Use Case 3 – Payroll payments**

**Situation today**  
 In order to receive their payroll payments, employees must provide their employer with their BSB and account number which are loaded into the monthly payroll file. If an employee changes their bank account, they have to provide their employer with their updated BSB and account number details.



**Scenario under the NPP**  
 Under the NPP, employees could use their registered PayID to receive payroll payments into their account.  
  
 If an employee changes their bank account, all they have to do is port their PayID registered with their previous bank to their new one and all of their payments will automatically be directed into their new nominated bank account, eliminating the need to update payroll files with new BSB and account numbers.

**NPP message usage for payroll, tax and superannuation payments**

NPP Australia (NPPA) has developed message usage guidelines for payroll, tax and superannuation payments on the NPP. These message usage guidelines, together with processing rules and requirements for NPP participating financial institutions, are intended to ensure a consistent approach to the treatment of data required to support these specific payment types when a payment is made via the NPP and to facilitate the consistent transmission of data from Payer through to Payee.

The ISO 20022 standard, with its extensive data capabilities, provides the ability to define particular types of payments and the data elements associated with these payments. The ISO 20022 message schema uses codes contained within the message to specify a specific purpose of the payment. These codes are defined as ‘category purpose codes’. Like the transaction code in a BECS (or aba) file format, these codes enable the identification of the type of payment being made by processing financial institutions. NPP processing rules and message usage guidelines define specific message elements that should be included for particular payment types and the use of category purpose codes to identify these types of payments. The implementation of these processing rules and defined specific message elements by NPP participating financial institutions is occurring in December 2020 for payroll, tax and superannuation payments.



## ISO 20022 message structure

The ISO 20022 payment message is comprised of 3 building blocks:

Group Header	Payment Information	Transaction Information
This building block is mandatory and presented once. It contains elements such as Message Identification, Creation Date and Time and Grouping Indicator.	This building block is mandatory and may be repeated. In addition to elements related to the debit side of the transaction, such as Debtor and Payment Type Information, it contains one or more 'Transaction Information Blocks'.	This building block is mandatory and may be repeated. It contains, amongst others, elements related to the credit side of the transaction, such as Creditor and Remittance Information.  The number of occurrences of 'Payment Information Block' and 'Transaction Information Block' within a message is indicated by the Grouping field in the Group Header.

## Use of Category Purpose Codes

Just as a BECS Direct Entry record identifies the transaction code of the payment instruction, ISO 20022 messages use category purpose codes that identify the type of payment being made. Third parties that want to instruct a financial institution to process a payment to a beneficiary party, either from their own account or from a customer's account, can use these category purpose codes when making these payment instructions. These payment instructions can be sent to the processing financial institution using an ISO 20022 payment initiation message (what is known as an NPP pain.001 message<sup>3</sup>), an alternative file format as agreed with the processing financial institution receiving the file, or via an API hosted by the processing financial institution<sup>4</sup>.

NPPA is implementing the use of specific category purpose codes for NPP messages for certain types of payments:

- SALA – for salary and payroll payments
- TAXS – for payments to government authorities such as tax payments, excise duties, fees or fines
- PENS – for payment of superannuation contributions and other related superannuation payments

These category purpose codes are commonly used in other markets where ISO 20022 has been implemented. The intention of defining NPP message usage for these categories of payments ensures that vendors, service providers and receiving parties have assurance in relation to consistent information being contained within the NPP message and transmitted with the payment.<sup>5</sup>

## Payroll/Salary category purpose code – SALA

Australian payroll vendors, payroll outsource providers and employers currently interact with their financial institution under traditional BECS (Direct Entry/aba) processing or proprietary data transfer methods. This provides the sending party with the ability to initiate payroll payments for processing at set file exchange time times on business days, using a batch-based method where the file containing the payment has limited information and value is posted T+1. Typical payroll processing timeframes would require a payroll file to be complete and authorised prior to a 4pm or 6pm cut-off to ensure overnight (9am next business day) processing to employees.

For a payroll payment, a debtor – in most cases the employer – instructs their FI to process a payment to the employee. The transfer is made from the employer's account to the employee's account. Payroll payments often have special processing requirements due the sensitivity of the personal information being handled and the requirement to process by a specific date i.e.

<sup>3</sup> Defined as a Customer Credit Transfer Initiation message

<sup>4</sup> Third parties should check with their Financial Institution to see what payment initiation services are being offered by that Financial Institution

<sup>5</sup> For further information relating to External Code Sets please refer to the ISO website. [https://www.iso20022.org/external\\_code\\_list.page](https://www.iso20022.org/external_code_list.page)



pay date. Under existing rules (for BECS) the processing of a payroll payment is made using the transaction code 53, which indicates that there is additional reference information such as the employee number and the description of entries (e.g. PAYROLL) to enable appropriate treatment of these payments.

Using the NPP for payroll payments means the payment is processed in near-real time and allows for more information to be transmitted with the payment. Additionally, the payment could be made using the employee's registered PayID<sup>6</sup> to route the payment to the employee's bank account. Using the NPP message also provides an opportunity to include additional reference information in the payment message, which can be presented to the payee. This can include more structured data elements or extended commentary in the payment from the employer, for example, "Adjustment pay for week ending 20/1/19" or "Commission payment for Quarter 1", up to date details of hours paid, superannuation contributions or details relevant to the employee pay slip.

### NPP SALA message elements

The NPP message for payroll payments will carry the same data as currently contained within the BECS file or similar file formats. The main elements required to identify a payroll or salary payment for an NPP message are:

1. Category Purpose Code = "SALA" to identify the purpose of the transfer as a payroll/salary payment on the debit side
2. Creditor Reference Information = Employee Number/Identification
3. End-to-End ID = Employee Number/Reference

Due to the nature of payroll payments, the employer may require that the payments be made as a batch payment with a batch booking flag. The purpose of this batch booking flag is to signify that the debtor is requesting a batch entry be made for the sum of the amounts of all the transactions which are being grouped together within a message. This would be represented in the message element 'Payment Information/Batch Booking'.

Data contained within the NPP clearing message associated with a payment instruction is encrypted and available only to the parties to the payment transaction and the sending and receiving financial institutions, and is not collected by or available to NPPA, its vendors or any other financial institutions. The NPP itself has been designed with privacy and data security as core features. Security of host-to-host or other file upload facilities provided by NPP participating financial institutions for their corporate and government customers for the transmission of payment instructions is outside of the NPP security framework.

### Tax category purpose code – TAXS

Payments made to a government authority, whether this is a federal, state or local authority, are considered to be included in the TAXS category of payments. The party to whom the payment is to be made will specify the reference to be included with the payment.

The ISO 20022 TAXS category purpose code used for NPP payments allows additional reference or reconciliation information to be included in the payment message. By including additional data in the NPP payment message, this could enhance reconciliation and processing efficiency by facilitating straight-through-processing of the tax payment. As an example, market participants, such as payroll providers, could choose to incorporate some of these additional data elements when processing PAYGW tax payments relating to Singe-Touch Payroll processing.

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<sup>6</sup> A PayID is a unique proxy for a bank account number, which is registered by a customer with their financial institution, and available to payers for directing NPP payments to that customer's account. For further information on PayID, please visit [www.payid.com.au](http://www.payid.com.au)



## NPP TAXS message elements

The main elements required to identify a tax payment for an NPP message are:

1. Category Purpose Code = "TAXS" to identify the purpose of the payment as a taxation payment on the debit side
2. End to End Identification = the Payment Reference Number (PRN)/Customer reference number

## Superannuation category purpose code – PENS

Requirements for superannuation payments made by employers, or intermediaries, to superannuation funds are defined by the SuperStream Data and Payment Standards – Payment Methods<sup>7</sup> issued by the ATO. Contribution information is submitted separately to the superannuation payment. This information is defined as part of the SuperStream reporting rules.

Superannuation payments and the reconciliation of these relies on SuperStream reporting reconciliation information being transferred with the payment. This is achieved by the SuperStream Payment Reference Number (PRN) being contained within the payment message (which today is usually a BECS credit transfer payment). The PRN and the value of the payment represent the two unique reference points that enable reconciliation to the member reports submitted via SuperStream.

The use of the NPP to make superannuation payments as an alternative payment option to the current BECS file payment process would not only result in faster processing times, it would also provide opportunities to provide further information within the payment message such as USI and/or member number. By using existing data elements within the ISO 20022 message structure for the payment, the NPP could further improve automation and operational efficiency with reduced exceptions and less manual intervention involved in the payment process. Contribution data would continue to be sent via the current SuperStream reporting process. Efficiencies could also extend to Unclaimed Superannuation (USM) and rollovers where funds can be allocated in near-real time.

NPPA is seeking to have the NPP incorporated as an approved payment method within the SuperStream Data and Payment Standards. Currently the NPP is not a prescribed payment option under the SuperStream Data and Payment Standards and can only be used for SuperStream payments under agreement between the sender and receiver.<sup>8</sup> NPPA's focus is on creating a consistent, standardised approach to superannuation payments being processed on the NPP. Critical to this is ensuring that the NPP message contains specific data elements in a structured way and that NPP participating financial institutions can receive a superannuation payment with those specified data elements (primarily the PRN), which can then be used to reconcile the payment with the SuperStream reporting.

## NPP PENS message elements

To facilitate the ongoing reconciliation of superannuation payments, it is critical that key data elements are maintained in the NPP message. The category purpose code 'PENS' can be used to identify that the payment is a superannuation payment and that the payment message will need to contain the minimum data required (the PRN) to reconcile payments with the associated SuperStream reporting.

The main elements required for a superannuation payment in an NPP message are:

1. Category Purpose Code = "PENS" to identify the purpose of the payment as a superannuation payment on the debit side
2. Remittance Information/EndtoEndID = PRN

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<sup>7</sup> [https://softwaredevelopers.ato.gov.au/sites/default/files/resource-attachments/Schedule\\_3\\_Payment\\_Methods\\_v2%200.pdf](https://softwaredevelopers.ato.gov.au/sites/default/files/resource-attachments/Schedule_3_Payment_Methods_v2%200.pdf)

<sup>8</sup> [https://softwaredevelopers.ato.gov.au/sites/default/files/resource-attachments/G051\\_Guidance\\_-\\_SuperStream\\_payments\\_using\\_NPP\\_v1.0\\_FINAL\\_20180524.pdf](https://softwaredevelopers.ato.gov.au/sites/default/files/resource-attachments/G051_Guidance_-_SuperStream_payments_using_NPP_v1.0_FINAL_20180524.pdf)

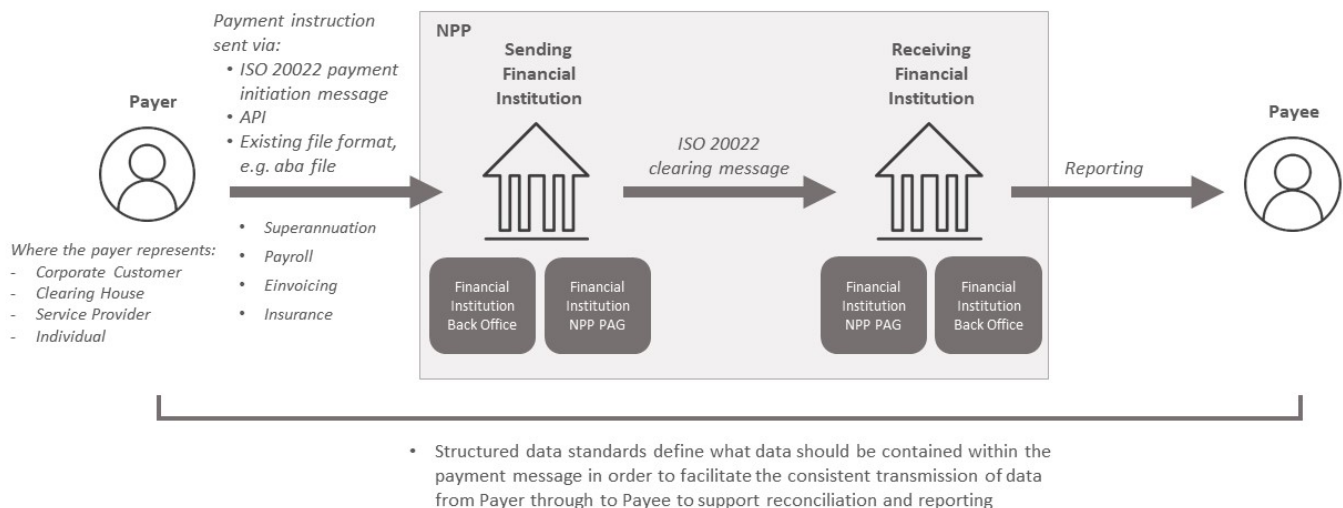


## Extending NPP ISO 20022 messages to APIs

The NPP ISO 20022 message usage can also be applied to APIs that have been developed to support payments using the NPP. NPPA has developed an API Framework which defines the key technical approach and mandatory data attributes for APIs, aligned to ISO 20022 standards<sup>9</sup>. This API Framework is intended to drive inter-operability, standardisation, and consistency in how organisations use APIs to access their financial institution’s NPP functionality and services for their payment needs. NPPA is aligning its ISO 20022 message usage work with the NPP API Framework to facilitate the use of APIs for these specific payment types. For more information on the NPP API Framework, click [here](#).

## What does this mean for organisations that want to make payroll, tax and superannuation payments on the NPP?

Payers that want to instruct an NPP participating financial institution to process a payment to a beneficiary party, either from their own account or from a third party customer’s account (where customer authorisation and the relevant agreement from the processing financial institution is in place<sup>10</sup>), could use the NPP messages and category purpose codes when making these payment instructions. The financial institution receiving these payment instructions from the Payer would be responsible for ensuring that the required data is received and is passed into the payment clearing message to ensure the end-to-end transfer of the information through to the Payee, as illustrated below:



These payments could be initiated by a Payer in various ways, such as:

- Using an NPP payment initiation message (pain.001)
- An NPP payment initiation API hosted by the sending or processing financial institution (which is aligned to the NPP payment initiation message)
- An alternative file format as offered by or agreed with the financial institution receiving the file from the Payer. This could include the existing BECS or aba file format

The Payer would need to work with their processing financial institution(s) to determine how the required data is received (and in what format) in order for the data to be passed into the payment clearing message. Market participants, such as payroll providers, cloud accounting software providers and superannuation gateways, could choose to incorporate the specified NPP ISO 20022 data elements into their product and service offerings to be able to send payroll, tax and superannuation payments via the NPP<sup>11</sup>.

<sup>9</sup> NPPA, ‘New Payments Platform API Framework opens door to capabilities’

<sup>10</sup> Third party payment initiation supported by customer authorisation.

<sup>11</sup> Fees for processing NPP payments for Payers are set by individual financial institutions



## Implementation of NPP message usage guidelines

NPP participating financial institutions will be obliged to **receive** NPP messages with additional defined data elements for payroll, tax and superannuation payments by December 2020. Financial institutions can choose whether or not to support **sending** these payment message types according to the needs of their customer base and their individual commercial offerings.

NPPA will periodically review and update the defined data elements contained within this document for payroll, tax and superannuation payments. NPPA will also consider developing additional message usage guidelines for other payment types in the future according to market demand. Further details regarding the NPP message usage guidelines will be made available on the NPPA website at [www.nppa.com.au](http://www.nppa.com.au).





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**22 November 2019**

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