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Australian Government
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SUPERSTREAM

Contributions Conformance Testing Guide

A guide to the contributions conformance testing process for employers, funds and solution providers

VERSION 1.0



UNCLASSIFIED



For further information or questions, email
SuperStreamStandards@ato.gov.au

VERSION CONTROL

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1 PURPOSE

The purpose of this document is to provide guidance for employers, funds, software developers and solution providers when undertaking conformance testing against the SuperStream Contributions Standard in order to achieve 3rd party certification and induction cross-certification of conforming messaging solutions.

From July 1 2014 the set of contributions transactions being implemented, as required by the Standard, comprises:

- Member registration request (MRR)
- Member registration outcome response (MROR)
- Member contributions transaction request (CTR)
- Member contributions error response (CTER)

This document supports the processes for certification of products and implementation of the Standard by publishing a test and conformance suite for contributions, including a standard set of test cases, which will form the basis for 3rd party certification and induction cross-certification.

2 BACKGROUND

From 1 July 2014 employers, funds and administrators are required to communicate contribution messages and member registration messages in accordance with the super Stream Standard.

2.1 AUDIENCE

The audience for this document is any employer, fund, software developer and solution provider that will be developing or extending their software to make it compliant with the Superannuation Data and Payment Standard 2012.

For more information, click here <http://www.ato.gov.au/Super/SuperStream/In-detail/Legal-framework/Legislative-instrument/Superannuation-data-and-payment-standards-and-associated-schedules/>

This document has been written for an audience expected to be familiar with the following:

- XBRL – www.xbrl.org
- ebMS3.0/AS4 - www.oasis-open.org/standards
- SuperStream program – www.ato.gov.au/superstream
- SBR Program – www.sbr.gov.au

2.2 DOCUMENT CONTENT

The document provides sample test cases for execution by Software Developers as part of a self-certification process up to and including interoperability testing. This document contains a list of test cases to assist in validating the following:

- AS4 ebMS message conformance and testing supporting Superstream business to business exchange of data
- The application code complies with the business rules defined in the corresponding Message Implementation Guide (MIG) for the transaction.
- The application code generates an XBRL message instance that complies with the XBRL Definitional and Report Taxonomies and associated Schematron rules.
- The application code correctly processes a message received including exception handling.

2.3 DOCUMENT STRUCTURE

The detailed content of this document is divided in the following four major sections and an overview of the content of each is provided below:

- Section 3 Conformance testing
- Section 4 Contributions test cases
- Section 5 End-to-end test scenarios
- Section 5 Solution scenarios

2.3.1 Section 3 - Conformance testing

In this section the focus is on the different solution scenarios and the many components involved in the messaging implementations that will be developed by employers, funds, gateways and solution providers to support SuperStream contributions messaging.

The major entities and components are identified along with their role in the messaging process. The main identified patterns of solution types are listed and categorised.

An overview of the pre-induction processes of solution integration testing, 3rd party certification and pre-induction end-to-end testing is provided along with a description of the induction cross-certification process.

The discussion in this section provides separate emphasis on the employer-side solutions, the gateways network and the fund-side solutions that make up the overall employer to fund messaging process.

2.3.2 Section 4 - Contributions test cases

This section gives an overview of contributions testing requirements and lists the test cases that form the basic requirement for 3rd party certification testing and pre-induction end-to-end testing.

2.3.3 Section 5 - End-to-end test scenarios

The tables in this section provide a catalogue of the contributions messaging tests and then specify the detailed messaging steps involved in each of the end to end test sequences listed for MRR and CTR messages and for MROR and CTER response messages.

2.3.4 Section 6 - Solution scenarios

This section describes, in detail, each solution scenario listed in section 3.1.3 with a scenario diagram and discussion of the scenario and the specific certification and testing requirements for that scenario.

2.4 OTHER RELATED DOCUMENTS

This document is to be used in conjunction with these related documents:

- **Data and Payment Standards - Contributions Message Implementation Guide** and supporting XBRL reporting taxonomy to implement each transaction that will be supported by the application.
- **Data and Payment Standard - Message Orchestration & Profiles**
- **Contributions Induction Process Guide**

3 CONFORMANCE TESTING

This section gives an overview of contributions messaging solution scenarios and the testing and certification requirements for those scenarios.

3.1 CONTRIBUTIONS MESSAGING TEST SCENARIOS

At the business level, a member registration transaction request and a member contributions transaction request are end to end transactions between an employer and a fund. The actual implementation solution for these transactions may involve a number of components and superannuation solution providers. This section identifies and categorises the most common solution patterns that may apply to testing and implementation of employer to fund messaging solutions.

3.1.1 Employers, funds, gateways and other solution partners

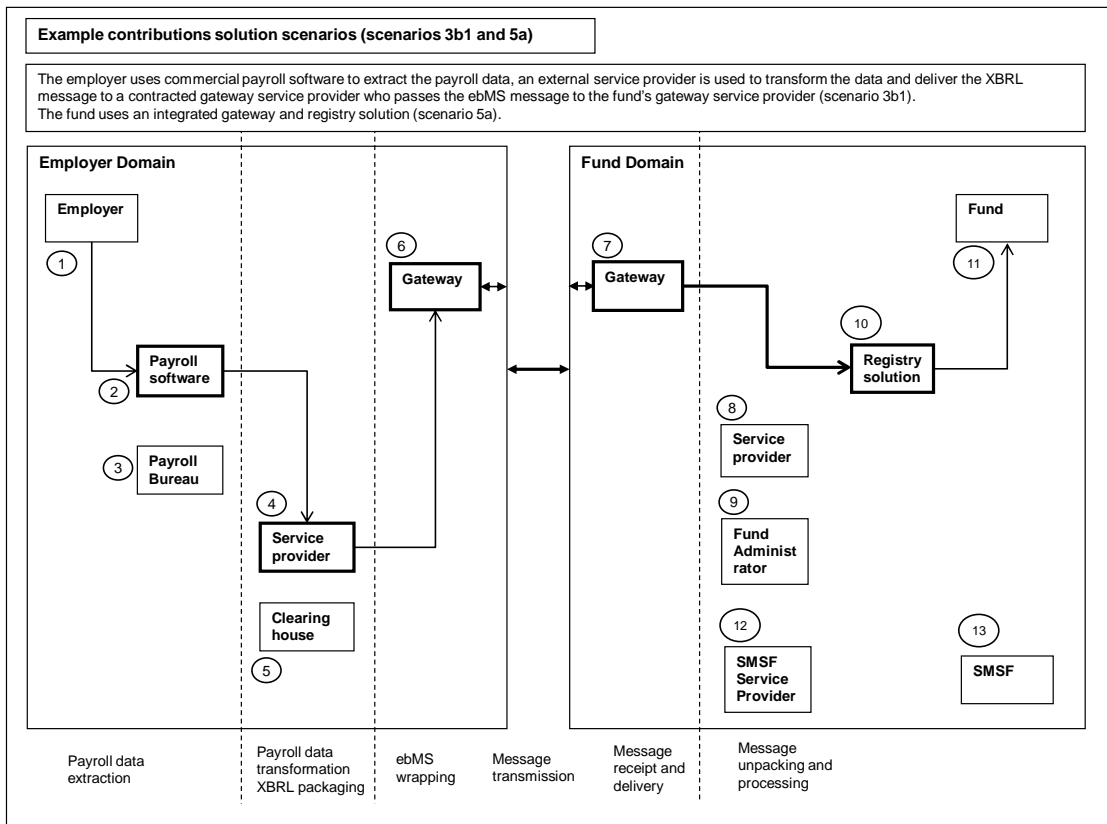
A number of components including payroll software providers, clearing houses, messaging gateways and other superannuation solution providers, along with the employer, the fund and gateways, make up any particular solution. The table below lists the main identified solution partners and components and provides a description of the likely role and function of each.

Entity/component/role	Description
1. Employer	An employer who is required to make contributions and report superannuation payments according to the SuperStream standards.
2. Payroll software	A software system that calculates and records, wages and other employee benefits for an employer.
3. Payroll bureau	A service provider that arranges the calculation and payment of salary, wages and other employee benefits on behalf of an employer.
4. Employer service provider	A service provider that transforms contributions information into XBRL documents to send to a fund and unpacks response message received on behalf of an employer.
5. Clearing house	A service provider arranges the payment of salary, wages and/or other employee benefits on behalf of an employer.
6. Employer gateway	The access an employer uses to send messages within the SuperStream network
7. Fund gateway	The access point a fund uses to send messages within the SuperStream network
8. Fund service provider	A service provider that unpacks contributions information from XBRL documents received and creates responses message on behalf of fund.
9. Fund Administrator	A service provider that manages superannuation registry information on behalf of a fund.
10. Registry solution	A software solution used by a superannuation fund to member record contributions and calculate benefits for superannuation fund members.
11. Fund	A superannuation fund is a complying super fund, public sector super scheme (regulated or exempt public sector super scheme), complying approved deposit fund or a retirement savings account
12. SMSF service provider	A service provider that acts as the messaging access point in the SuperStream network on behalf of an SMSF
13. SMSF	Self-managed super fund.

3.1.2 Solution type overview and example

The diagram below provides an example of an employer solution scenario and a fund solution scenario and the interactions between the various entities involved in the passing of contributions transactions between the employer and fund.

In this example the employer uses commercial payroll software to extract the payroll data, an external service provider is used to transform the data and deliver the XBRL message to a contracted gateway service provider who passes the ebMS message to the fund's gateway service provider (scenario 3b1). The fund uses an integrated gateway and registry solution (scenario 5a).



3.1.3 Employer solution scenarios

The main identified solution scenarios are listed below and each is illustrated in detail with explanation and a diagram, based on the format of the example above, in Section 6.

1. Employer bridging solutions (alternate file format)
 - 1a. **Bridging solution (alternate file format)** - Employer direct to fund interface (no ebMS messaging)
 - 1b. **Bridging solution (alternate file format) with pass through** - Employer direct to fund interface (some ebMS messaging)

(See section 6.1.1.1 for a description of the conditions that must be met for a bridging solution.)
2. Employer with standalone solution including messaging to receiving gateway to fund
 - 2a. **Employer with standalone solution** - Payroll (extract, construct XBRL, add ebMS wrapper) to (receiving) gateway to fund
3. Employer with own payroll system or using payroll bureau
 - 3a1. **Employer with own payroll** - Payroll (extract, construct XBRL) to gateway (add ebMS wrapper) to gateway to fund
 - 3a2. **Employer using payroll bureau** - Payroll (extract, construct XBRL) to gateway (add ebMS wrapper) to gateway to fund
 - 3b1. **Employer with own payroll** - Payroll (extract) to service provider (construct XBRL) to gateway (ebMS) to gateway to fund
 - 3b2. **Employer using payroll bureau** - Payroll (extract) to service provider (construct XBRL) to gateway (ebMS) to gateway to fund
 - 3b3. **Employer with own payroll** - Payroll (extract) to integrated service provider solution (construct XBRL and (ebMS) gateway) to gateway to fund
 - 3c1. **Employer with own payroll** - Payroll (extract) to clearing house (construct XBRL) to gateway (ebMS) to gateway to fund
 - 3c2. **Employer using payroll bureau** - Payroll (extract) to clearing house (construct XBRL) to gateway (ebMS) to gateway to fund
 - 3c3. **Employer with own payroll** - Payroll (extract) to integrated clearing house solution (construct XBRL and (ebMS) gateway) to gateway to fund
4. Employer with commercial payroll software
 - 4a1. **Employer with standalone commercial payroll software including messaging** - Payroll (extract, construct XBRL, add ebMS wrapper) to (receiving) gateway to fund
 - 4a2. **Employer with commercial payroll software** - Payroll (extract, construct XBRL) to gateway (add ebMS wrapper) to gateway to fund

- 4b1. **Employer with commercial payroll software** - Payroll (extract) to service provider (construct XBRL) to gateway (ebMS) to gateway to fund
- 4b2. **Employer with commercial payroll software** - Payroll (extract) to integrated service provider solution (construct XBRL and (ebMS) gateway) to gateway to fund

- 4c1. **Employer with commercial payroll software** - Payroll (extract) to clearing house (process, construct XBRL) to gateway (ebMS) to gateway to fund
- 4c2. **Employer with commercial payroll software** - Payroll (extract) to integrated clearing house solution (construct XBRL and (ebMS) gateway) to gateway to fund

3.1.4 Fund solution scenarios

5. Fund with own registry solution
 - 5a. **Fund with integrated gateway and registry solution** - Gateway (deconstruct XBRL, extract data, pass to fund)
 - 5b. **Fund with integrated service provider and registry solution** - Gateway to service provider (deconstruct XBRL, extract data, pass to fund)
 - 5c. **Fund with fund administrator integrated service and registry solution** - Gateway to fund administrator (deconstruct XBRL, extract data, pass to fund)

6. Fund with commercial registry solution
 - 6a. **Fund with commercial registry solution** - Gateway to commercial registry solution (deconstruct XBRL, extract data, pass to fund)

7. SMSF with integrated gateway and SMSF service or SMSF service provider
 - 7a. **SMSF with integrated gateway and SMSF service** - Gateway with integrated SMSF service (receive message, deconstruct XBRL, extract data, pass to SMSF)
 - 7b. **SMSF with SMSF service provider** - Gateway to SMSF service provider (deconstruct XBRL, extract data, pass to SMSF)

3.2 CONTRIBUTIONS CERTIFICATION EXPECTATION

The testing and certification pathway for contributions messaging solutions includes two certification parts; a 3rd party certification process and an induction (cross-certification) process.

Completion of 3rd party certification is a pre-requisite to entry to the induction process.

Once a particular solution is certified there no need to certify again until there is a future major change to the Contributions schedule.

Third party certification

A trustee may engage an independent third party to conduct certification of their data standards solution. This would be undertaken against an industry standard conformance suite and provide evidence of certification issued by the third party.

A certification process supported by a collaborative (3rd party) test facility is a core part of the start-up pathway for contributions messaging solutions.

Each 'solution' will need to have completed third party certification prior to acceptance into the induction process.

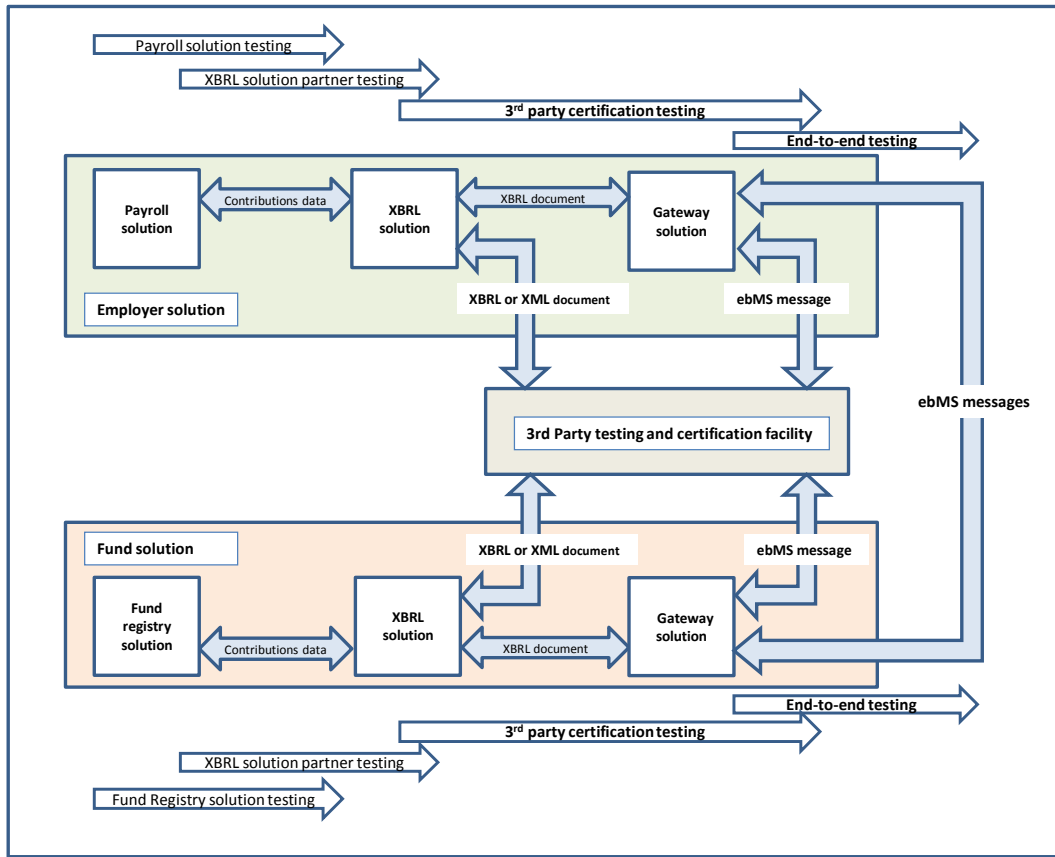
Induction (cross-certification)

A trustee can certify that they can send and receive messages in the standard by undertaking appropriate production transactions with a third party.

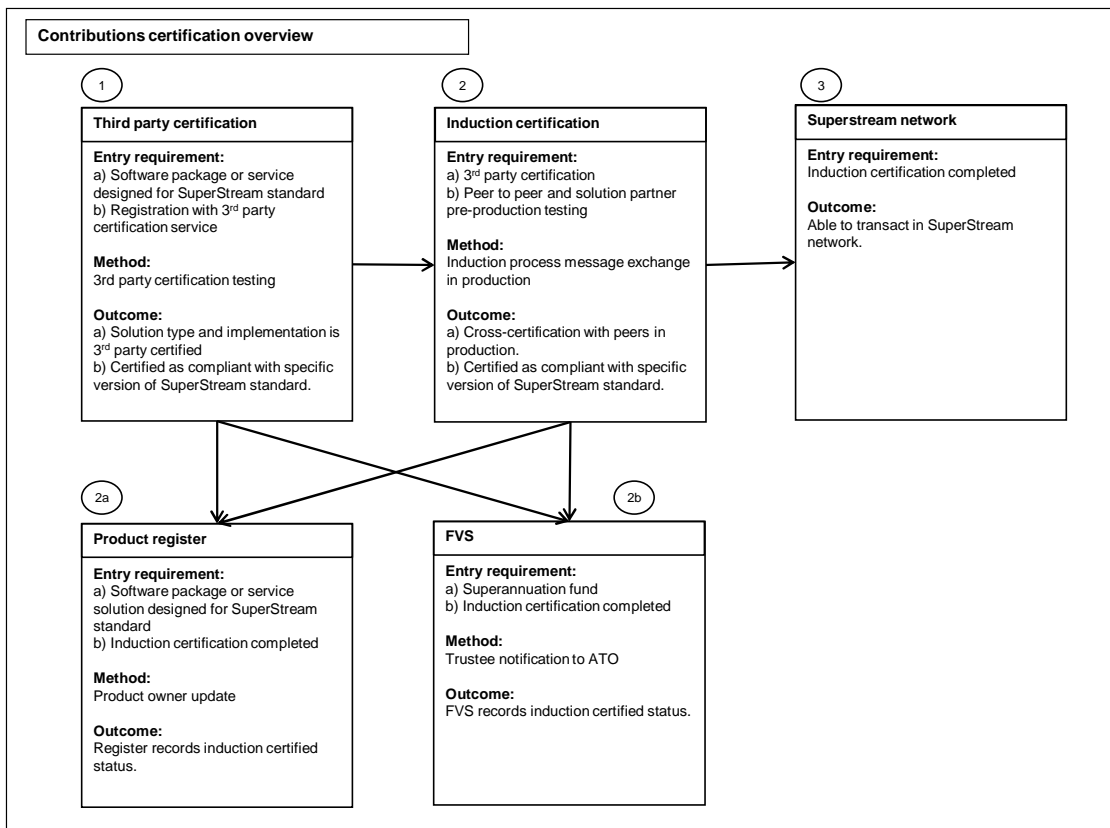
The induction process conducted by exchanging messages in the production environment will facilitate the cross-certification of messaging solutions by the induction cohort participants.

Cross-certification is approved by the ATO after successful completion of the induction process.

An overview of the pre-induction integration testing, 3rd party certification and pre-induction end-to-end testing processes is shown below.



The outcomes of 3rd party certification and induction cross-certification will be recorded in the Product register on the ATO Software Industry Liaison (SILU) website and the Fund Validation Service (FVS) as illustrated below.



The certification status field values recorded in the FVS will indicate a status for both Rollovers and Contributions and a schedule version number for each.

The version number will only be updated after a major change to the Contributions schedule.

The field must contain a value which may be NIL, or a combination of one rollover and/or one contribution value.

A table showing the allowed values is included below.

Value	Description
NIL	Has not achieved certification for rollovers or contributions
ROLL1.0-X	Cross-certified to send and receive rollovers, not certified for contributions
CONT1.0-B	Not certified for rollovers, 3rd party certified to receive contributions
CONT1.0-A	Not certified for rollovers, 3rd party certified to receive contributions and send responses
CONT1.0-X	Not certified for rollovers, cross certified to receive contributions and send responses
ROLL1.0-X, CONT1.0-B	Cross-certified to send and receive rollovers, 3rd party certified to receive contributions
ROLL1.0-X, CONT1.0-A	Cross-certified to send and receive rollovers, 3rd party certified to receive contributions and send responses
ROLL1.0-X, CONT1.0-X	Cross-certified to send and receive rollovers, cross-certified to receive contributions and send responses

3.2.1 Certification and testing requirements matrix

The table below summarises the certification and testing requirements for each the entities potentially involved in contributions messaging solutions.

Each actual solution scenario will dictate a different combination of components that requires, or need to be involved in, 3rd party certification. All solution components, of course, must be involved in end to end testing.

The certification requirement for each of the solution scenarios listed in sections 3.1.3 and 3.1.4 is discussed in detail in Section 6.

Contributions certification and testing requirements matrix			
	3 rd part certification	End to end pre-induction testing	Induction cross-certification
Payroll solutions	Yes	Yes	Yes
Clearing houses	Yes	Yes	Yes
Gateways	Desirable	Yes	Yes
Fund service providers	Yes	Yes	Yes
Fund administrators	Yes	Yes	Yes
Fund registry solutions	Yes	Yes	Yes
SMSF service providers	Yes	Yes	Yes

3.2.2 Third party Certification expectation

Third party certification is expected for solutions utilising a SuperStream conforming payload (i.e. XBRL) and / or message protocol (ebMS) and includes:

- a. Payroll solutions
- b. Clearing house
- c. Gateways (desirable, but not mandatory)
- d. Fund service providers
- e. Fund Administrators
- f. Fund registry solutions
- g. SMSF service providers

3.2.3 Induction cross-certification expectation

Induction cross-certification is expected for solutions utilising a SuperStream conforming payload (i.e. XBRL) and / or message protocol (ebMS) and includes

- a. Payroll solutions
- b. Clearing house
- c. Gateways
- d. Fund service providers
- e. Fund Administrators
- f. Fund registry solutions
- g. SMSF service providers

3.2.4 Certification and testing scenarios overview

Gateways

1. Gateways will perform their own interoperability testing before involvement in pre-induction 3rd party certification and pre-induction end-to-end testing.
2. Gateway solutions must obtain induction cross-certification and may also obtain 3rd party certification if desired.
3. Where a gateway provides a closely integrated employer-side or fund-side solution, that solution as a whole will require the gateway presence in 3rd party certification.

Employer side solutions

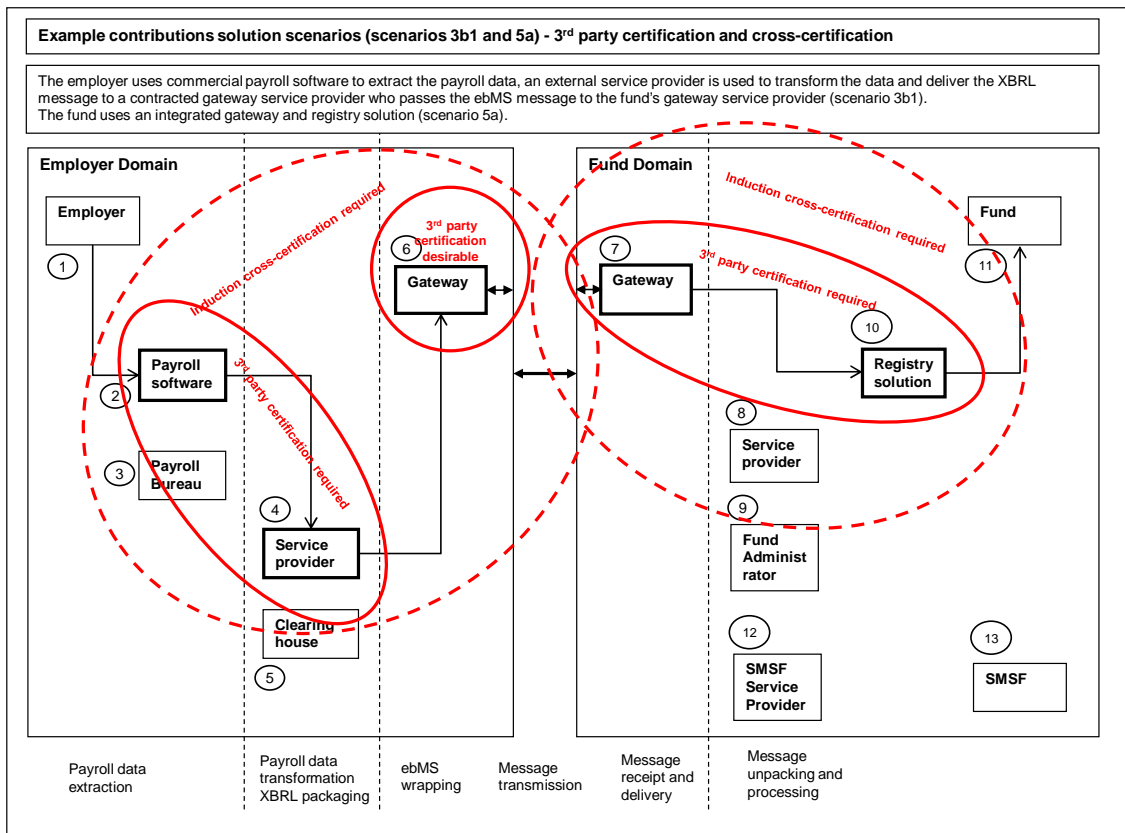
1. Payroll solutions must obtain 3rd party certification and induction cross-certification. This may be separately, if they provide an integrated XBRL transformation solution, or in conjunction with a messaging service provider or clearing house solution if they do not.
 - a. Business logic differs by payroll provider, so each combination needs certification but only needs to be done once (with their primary service provider or clearing house solution).
2. Service provider solutions must obtain 3rd party certification and induction cross-certification. Third party testing and certification will be undertaken in cooperation with selected employers and payroll solution providers.
3. Clearing house solutions must obtain 3rd party certification and induction cross-certification. Third party testing and certification will be undertaken in cooperation with selected employers and payroll solution providers.
4. Service provider solutions or clearing house solutions that are tightly coupled to a gateway must include the gateway solution in 3rd party testing to obtain 3rd party certification. The linked gateway service is of course is part of their induction cross-certification.

Fund side solutions

1. Registry solutions must obtain 3rd party certification and induction cross-certification. This may be:
 - a. Separately, if the registry solution provides an integrated XBRL transformation solution, or
 - b. In conjunction with a gateway if the gateway provides an integrated message receipt and XBRL transformation solution, or
 - c. In conjunction with a fund service provider or fund administrator if they receive messages from a gateway and provide an XBRL transformation solution before passing information to the fund.
2. For both 3rd Party certification and induction cross-certification processes the following additional conditions apply to registry solution testing:
 - a. If multiple funds use a common registry solution, certification for a chosen fund would constitute certification for all other funds associated with the registry system.
 - b. In a more complex environment that contains multiple registry systems with various funds, a single fund within each registry system should be certified.

3. SMSF service solutions must obtain 3rd party certification and induction cross-certification. This may be:
 - a. In conjunction with a gateway if the gateway provides an integrated message receipt and XBRL transformation solution for the SMSF, or
 - b. In conjunction with a fund service provider or fund administrator if they receive messages from a gateway and provide an XBRL transformation solution before passing information to the SMSF.

An illustration of the 3rd party certification requirement and induction cross-certification requirements for the example used in section 3.1.2 is provided below. Each of the identified solution scenarios is discussed in detail in Section 6.



4 CONTRIBUTIONS TEST CASES

This section gives an overview of contributions testing and lists the test cases that form the basic requirement for 3rd party certification testing and pre-induction end-to-end testing.

4.1 CONTRIBUTIONS TESTING OVERVIEW

The certification processes and pre-induction testing required for contributions messaging solutions must test the following:

Employer sending test scenarios

- a. Payroll data extraction
- b. XBRL message construction
- c. ebMS message transmission

Employer receiving test scenarios

- a. ebMS (response) message receipt
- b. XML response message deconstruction
- c. Error and outcome messages processed

Fund receiving test scenarios

- a. ebMS message receipt
- b. XBRL message deconstruction
- c. Contributions data processed to registry

Fund sending test scenarios

- d. Error and response messages generated
- a. XML message construction
- b. ebMS message transmission

4.2 END-TO END AND PARTNER TESTING CHECKLIST

Business tests – end to end

1. Registration (default fund, new and updates), contributions (default and choice funds)
2. Positive tests and responses
3. Negative tests and responses (business errors where possible)
4. End to end processing success
5. Accuracy of data extraction, processing and recording
6. Payment reconciliation

Message structure and content tests

1. Presence of fields
 - a. Mandatory fields present
 - b. Conditional and dependent fields present if required
2. Values
 - a. Values according to taxonomy
 - b. Cross field validations
 - c. Other business rules – employer
 - d. Other business rules – fund

3. XBRL
 - a. Message correctly formed
 - b. Message internally consistent – context and data
4. XML (responses)
 - a. Message correctly formed
 - b. Message internally consistent – parameters and event items
5. ebMS
 - a. Header and wrapper correct
 - b. Transmission and receipt successful
 - c. Response messages correctly packaged
 - d. Response message transmission and receipt successful

4.3 CONTRIBUTIONS TEST CASES

Sending of response and error messages is not mandatory until 2 February 2015.

During the initial induction process, only member registration request (MRR) and contribution transaction request (CTR) messages will be required.

No member registration outcome (MROR) (success) responses or member registration outcome (MROR) error responses will be required in the initial induction process. No contribution transaction error response (CTER) messages will be required in the initial induction process.

However, these may be tested during 3rd party certification testing and, by agreement between parties, exchanged during induction cross-certification and after completion of induction.

After the initial induction process, all subsequent induction processes will require all of MRR, MROR, CTR and CTER messages to be exchanged.

The certification process for registration and contributions messaging solutions must test the following:

4.3.1 Employer member registration transaction request testing

This involves sending member registration request messages. Registration response messages will be received. Registration error responses will also be received.

N.B: No MROR for initial induction process:

Test number	Description
MRR.01	MRR, Single business document, Single member, TFN provided, MROR response
MRR.02	MRR, Single business document, Multiple members, TFN provided, MROR response
MRR.03	MRR, Single business document, Single member, TFN not provided, MROR response
MRR.04	MRR, Single business document, Multiple members, TFN not provided, MROR response

N.B: Not for initial induction process:

Test number	Description
MROR.E01	MRR, Single member, Single response, SUPER.GEN.GEN.4 Mandatory data element not supplied.
MROR.E02	MRR, Multiple members, Single response, SUPER.GEN.GEN.4 Mandatory data element not supplied (partial severity)
MROR.E03	MRR, Multiple members, Multiple responses, SUPER.GEN.GEN.4 Mandatory data element not supplied (progressive severity)

4.3.2 Employer contribution transaction request testing

This involves sending member contribution transaction request messages. Contributions error response messages will be received.

Test number	Description
CTR.01	Single business document, Single member, TFN provided
CTR.02	Single business document, Multiple members, TFN provided
CTR.03	Single business document, Single member, TFN not provided
CTR.04	Single business document, Multiple members, TFN not provided

N.B: Not for initial induction process:

Test number	Description
CTER.E01	Single member, Single response, SUPER.GEN.GEN.4 Mandatory data element not supplied.
CTER.E02	Multiple members, Single response, SUPER.GEN.GEN.4 Mandatory data element not supplied (partial severity)
CTER.E03	Multiple members, Multiple responses, SUPER.GEN.GEN.4 Mandatory data element not supplied (progressive severity)

4.3.3 Fund member registration transaction request testing

This involves receiving member registration request messages. Registration response messages will be sent. Registration error responses will also be sent.

N.B: No MROR for initial induction process:

Test number	Description
MRR.01	MRR, Single business document, Single member, TFN provided, MROR response
MRR.02	MRR, Single business document, Multiple members, TFN provided, MROR response
MRR.03	MRR, Single business document, Single member, TFN not provided, MROR response
MRR.04	MRR, Single business document, Multiple members, TFN not provided, MROR response

N.B: Not for initial induction process:

Test number	Description
MROR.E01	MRR, Single member, Single response, SUPER.GEN.GEN.4 Mandatory data element not supplied.
MROR.E02	MRR, Multiple members, Single response, SUPER.GEN.GEN.4 Mandatory data element not supplied (partial severity)
MROR.E03	MRR, Multiple members, Multiple responses, SUPER.GEN.GEN.4 Mandatory data element not supplied (progressive severity)

4.3.4 Fund contribution transaction request testing

This involves receiving member contribution transaction request messages. Contributions error response messages will be sent.

Test number	Description
CTR.01	Single business document, Single member, TFN provided
CTR.02	Single business document, Multiple members, TFN provided
CTR.03	Single business document, Single member, TFN not provided
CTR.04	Single business document, Multiple members, TFN not provided
CTR.05	Multiple business documents, Multiple funds, Multiple members, TFN provided, Single fund gateway (pass through)

N.B: Not for initial induction process:

Test number	Description
CTER.E01	Single member, Single response, SUPER.GEN.GEN.4 Mandatory data element not supplied.
CTER.E02	Multiple members, Single response, SUPER.GEN.GEN.4 Mandatory data element not supplied (partial severity)
CTER.E03	Multiple members, Multiple responses, SUPER.GEN.GEN.4 Mandatory data element not supplied (progressive severity)

4.3.5 Employer combined registration and contribution request testing

This involves sending combined member registration and member contributions request messages. Registration response messages will be sent. Registration error responses will also be sent. Contributions error response messages will be sent.

Test number	Description
MRCTR.01	Single business document, Single member, TFN provided
MRCTR.02	Single business document, Multiple members, TFN provided
MRCTR.03	Single business document, Single member, TFN not provided
MRCTR.04	Single business document, Multiple members, TFN not provided
MRCTR.05	Multiple business documents, Multiple funds, Multiple members, TFN provided, Single fund gateway (pass through)

N.B: Not for initial induction process:

Test number	Description
MRCTR.E01	Single member, Single response, SUPER.GEN.GEN.4 Mandatory data element not supplied.
MRCTR.E02	Multiple members, Single response, SUPER.GEN.GEN.4 Mandatory data element not supplied (partial severity)
MRCTR.E03	Multiple members, Multiple responses, SUPER.GEN.GEN.4 Mandatory data element not supplied (progressive severity)

4.3.6 Fund combined registration and contribution request testing

This involves receiving combined member registration and member contributions request messages. Registration response messages will be sent. Registration error responses will also be sent. Contributions error response messages will be sent.

N.B: No MROR for initial induction process:

Test number	Description
MRCTR.01	Multiple business documents, Single member, TFN provided
MRCTR.02	Multiple business documents, Multiple members, TFN provided
MRCTR.03	Multiple business documents, Single member, TFN not provided
MRCTR.04	Multiple business documents, Multiple members, TFN not provided

N.B: Not for initial induction process:

Test number	Description
MRCTR.E01	Single member, Single response, SUPER.GEN.GEN.4 Mandatory data element not supplied.
MRCTR.E02	Multiple members, Single response, SUPER.GEN.GEN.4 Mandatory data element not supplied (partial severity)
MRCTR.E03	Multiple members, Multiple responses, SUPER.GEN.GEN.4 Mandatory data element not supplied (progressive severity)

5 END TO END TEST SCENARIOS

The following tables provide an overview of the end to end testing sequences for MRR, MROR, CTR and CTER messages.

5.1 END TO END TEST CASE CATALOGUE

Test number	Description
	Registration
MRR.01	MRR, Single business document, Single member, TFN provided, MROR response
MRR.02	MRR, Single business document, Multiple members, TFN provided, MROR response
MRR.03	MRR, Single business document, Single member, TFN not provided, MROR response
MRR.04	MRR, Single business document, Multiple members, TFN not provided, MROR response
	Registration - errors
MROR.E01	MRR, Single member, Single response, SUPER.GEN.GEN.4 Mandatory data element not supplied.
MROR.E02	MRR, Multiple members, Single response, SUPER.GEN.GEN.4 Mandatory data element not supplied (partial severity)
MROR.E03	MRR, Multiple members, Multiple responses, SUPER.GEN.GEN.4 Mandatory data element not supplied (progressive severity)

	Contributions
CTR.01	Single business document, Single member, TFN provided
CTR.02	Single business document, Multiple members, TFN provided
CTR.03	Single business document, Single member, TFN not provided
CTR.04	Single business document, Multiple members, TFN not provided
CTR.05	Multiple business documents, Multiple funds, Multiple members, TFN provided, Single fund gateway (pass through)
	Contributions - errors
CTER.E01	Single member, Single response, SUPER.GEN.GEN.4 Mandatory data element not supplied.
CTER.E02	Multiple members, Single response, SUPER.GEN.GEN.4 Mandatory data element not supplied (partial severity)
CTER.E03	Multiple members, Multiple responses, SUPER.GEN.GEN.4 Mandatory data element not supplied (progressive severity)

	Combined registrations and contributions
MRCTR.01	Multiple business documents, Single member, TFN provided
MRCTR.02	Multiple business documents, Multiple members, TFN provided
MRCTR.03	Multiple business documents, Single member, TFN not provided
MRCTR.04	Multiple business documents, Multiple members, TFN not provided
MRCTR.05	Multiple business documents, Multiple funds, Multiple members, TFN provided, Single fund gateway (pass through)
	Combined registrations and contributions - errors
MRCTR.E01	Single member, Single response, SUPER.GEN.GEN.4 Mandatory data element not supplied.
MRCTR.E02	Multiple members, Single response, SUPER.GEN.GEN.4 Mandatory data element not supplied (partial severity)
MRCTR.E03	Multiple members, Multiple responses, SUPER.GEN.GEN.4 Mandatory data element not supplied (progressive severity)

5.2 MEMBER REGISTRATION REQUEST (MRR) AND RESPONSE (MROR)

5.2.1 Positive test cases

MRR.01 Single business document, Single member, TFN provided, MROR response			
Employer		Fund	
MRR.01.EMP.01	Employer Send MRR		
		MRR.01.FND.01	Fund Receive MRR
		MRR.01.FND.02	Fund Send MROR
MRR.01.EMP.02	Employer Receive MROR		

MRR.02 Single business document, Multiple members, TFN provided, MROR response			
Employer		Fund	
MRR.02.EMP.01	Employer Send MRR		
		MRR.02.FND.01	Fund Receive MRR
		MRR.02.FND.02	Fund Send MROR
MRR.02.EMP.02	Employer Receive MROR		

MRR.03 Single business document, Single member, TFN not provided, MROR response			
Employer		Fund	
MRR.03.EMP.01	Employer Send MRR		
		MRR.03.FND.01	Fund Receive MRR
		MRR.03.FND.02	Fund Send MROR
MRR.03.EMP.02	Employer Receive MROR		

MRR.04 Single business document, Multiple members, TFN not provided, MROR response			
Employer		Fund	
MRR.04.EMP.01	Employer Send MRR		
		MRR.01.FND.01	Fund Receive MRR
		MRR.03.FND.02	Fund Send MROR
MRR.04.EMP.02	Employer Receive MROR		

5.2.2 Negative test cases

MRR.E01 Single member, Single response, SUPER.GEN.GEN.4 Mandatory data element not supplied.			
Employer		Fund	
MRR.E01.EMP.01	Employer Send MRR		
		MRR.E01.FND.01	Fund Receive MRR
		MRR.E01.FND.02	Fund Send MROR
MRR.E01.EMP.02	Employer Receive MROR		

MRR.E02 Multiple members, Single response, SUPER.GEN.GEN.4 Mandatory data element not supplied (partial severity)			
Employer		Fund	
MRR.E02.EMP.01	Employer Send MRR		
		MRR.E02.FND.01	Fund Receive MRR
		MRR.E02.FND.02	Fund Send MROR
MRR.E02.EMP.02	Employer Receive MROR		

MRR.E03 Multiple members, Multiple responses, SUPER.GEN.GEN.4 Mandatory data element not supplied (progressive severity)			
Employer		Fund	
MRR.E03.EMP.01	Employer Send MRR		
		MRR.E03.FND.01	Fund Receive MRR
		MRR.E03.FND.02	Fund Send MROR
MRR.E03.EMP.02	Employer Receive MROR		

Receipt of the variations of response message severity (error, partial, information and progressive) should also be tested as different response senders will use a variety of severity levels at different times.

The error message used as an example in these test cases is SUPER.GEN.GEN.4.

The table below lists relevant generic and contributions-specific error messages for negative testing where possible.

Error Code	Severity	Short Description
SUPER.GEN.GEN.3	Error	Employer supplied Member ID used in Entity ID is not unique.
SUPER.GEN.GEN.4	Error	Mandatory data element not supplied.
SUPER.GEN.GEN.6	Error	Missing context declaration.
SUPER.GEN.GEN.14	Error	Unknown Customer Reference Number.
SUPER.GEN.GEN.21	Error	Member not found with supplied information
SUPER.GEN.CNTRBTN.4	Error	Contributions cannot be accepted from this Contribution Provider
SUPER.GEN.CNTRBTN.5	Error	Member TFN required for this Contribution.
SUPER.GEN.CNTRBTN.6	Error	Payment is less than what has been specified with Contribution Transaction Request
SUPER.GEN.CNTRBTN.8	Error	Eligibility issue preventing the contribution being processed. Contact Superannuation entity for details

5.3 MEMBER CONTRIBUTIONS TRANSACTION REQUEST (CTR) AND RESPONSE (CTER)

5.3.1 Positive test cases

CTR.01 Single business document, Single member, TFN provided			
Employer		Fund	
CTR.01.EMP.01	Employer Send CTR		
		CTR.01.FND.01	Fund Receive CTR

CTR.02 Single business document, Multiple members, TFN provided			
Employer		Fund	
CTR.02.EMP.01	Employer Send CTR		
		CTR.02.FND.01	Fund Receive CTR

CTR.03 Single business document, Single member, TFN not provided			
Employer		Fund	
CTR.03.EMP.01	Employer Send CTR		
		CTR.03.FND.01	Fund Receive CTR

CTR.04 Single business document, Multiple members, TFN not provided			
Employer		Fund	
CTR.04.EMP.01	Employer Send CTR		
		CTR.04.FND.01	Fund Receive CTR

CTR.05 Multiple business documents, Multiple funds, Multiple members, TFN provided, Single fund gateway (pass through)			
Employer		Fund	
CTR.05.EMP.01	Employer Send CTR		
		CTR.05.FND.01	Fund Receive CTR
		CTR.05.FND.02	Fund pass through CTR

5.3.2 Negative test cases

CTR.E01 Single member, Single response, SUPER.GEN.GEN.4 Mandatory data element not supplied			
Employer		Fund	
CTR.E01.EMP.01	Employer Send CTR		
		CTR.E01.FND.01	Fund Receive CTR
		CTR.E01.FND.02	Fund Send CTER
CTR.E01.EMP.02	Employer Receive CTER		

CTR.E02 Multiple members, Single response, SUPER.GEN.GEN.4 Mandatory data element not supplied (partial severity)			
Employer		Fund	
CTR.E02.EMP.01	Employer Send CTR		
		CTR.E02.FND.01	Fund Receive CTR
		CTR.E02.FND.02	Fund Send CTER
CTR.E02.EMP.02	Employer Receive CTER		

CTR.E03 Multiple members, Multiple responses, SUPER.GEN.GEN.4 Mandatory data element not supplied (progressive severity)			
Employer		Fund	
CTR.E03.EMP.01	Employer Send CTR		
		CTR.E02.FND.01	Fund Receive CTR
		CTR.E02.FND.02	Fund Send CTER
CTR.E03.EMP.02	Employer Receive CTER		

5.4 COMBINED MEMBER REGISTRATION REQUEST (MRR) AND MEMBER CONTRIBUTIONS TRANSACTION REQUEST (CTR) MESSAGES

5.4.1 Positive test cases

MRCTR.01 Multiple business documents, Single member, TFN provided			
Employer		Fund	
MRCTR.01.EMP.01	Employer Send MRR, CTR		
		MRCTR.01.FND.01	Fund Receive MRR, CTR
		MRCTR.01.FND.02	Fund Send MROR
MRCTR.01.EMP.02	Employer Receive MROR		

MRCTR.02 Multiple business documents, Multiple members, TFN provided			
Employer		Fund	
MRCTR.02.EMP.01	Employer Send MRR, CTR		
		MRCTR.02.FND.01	Fund Receive MRR, CTR
		MRCTR.02.FND.02	Fund Send MROR
MRCTR.02.EMP.02	Employer Receive MROR		

MRCTR.03 Multiple business documents, Single member, TFN not provided			
Employer		Fund	
MRCTR.03.EMP.01	Employer Send MRR, CTR		
		MRCTR.03.FND.01	Fund Receive MRR, CTR
		MRCTR.03.FND.02	Fund Send MROR
MRCTR.03.EMP.02	Employer Receive MROR		

MRCTR.04 Multiple business documents, Multiple members, TFN not provided			
Employer		Fund	
MRCTR.04.EMP.01	Employer Send MRR, CTR		
		MRCTR.04.FND.01	Fund Receive MRR, CTR
		MRCTR.04.FND.02	Fund Send MROR
MRCTR.04.EMP.02	Employer Receive MROR		

MRCTR.05 Multiple business documents, Multiple funds, Multiple members, TFN provided, Single fund gateway (pass through)			
Employer		Fund	
MRCTR.05.EMP.01	Employer Send MRR, CTR		
		MRCTR.05.FND.01	Fund Receive MRR, CTR
		MRCTR.05.FND.02	Fund Send MROR
MRCTR.05.EMP.02	Employer Receive MROR		
		MRCTR.05.FND.03	Fund pass through CTR

5.4.2 Negative test cases (Single business document)

MRCTR.E01 Single member, Single response, SUPER.GEN.GEN.4 Mandatory data element not supplied			
Employer		Fund	
MRCTR.E01.EMP.E01	Employer send MRR, CTR	MRCTR.E01.FND.E01	Fund Receive MRR, CTR
		MRCTR.E01.FND.E02	Fund Send MROR, CTER
MRCTR.E01.EMP.E02	Employer receive MROR, CTER		

MRCTR.E02 Single member, Single response, SUPER.GEN.GEN.4 Mandatory data element not supplied (partial severity)			
Employer		Fund	
MRCTR.E02.EMP.E01	Employer Send MRR, CTR	MRCTR.E02.FND.E01	Fund Receive MRR, CTR
		MRCTR.E02.FND.E02	Fund Send MROR, CTER
MRCTR.E02.EMP.E02	Employer receive MROR, CTER		

MRCTR.E03 Single member, Multiple responses, SUPER.GEN.GEN.4 Mandatory data element not supplied (progressive severity)			
Employer		Fund	
MRCTR.E03.EMP.E01	Employer Send MRR, CTR	MRCTR.E03.FND.E01	Fund Receive MRR, CTR
		MRCTR.E03.FND.E02	Fund Send MROR, CTER
MRCTR.E03.EMP.E02	Employer receive MROR, CTER		

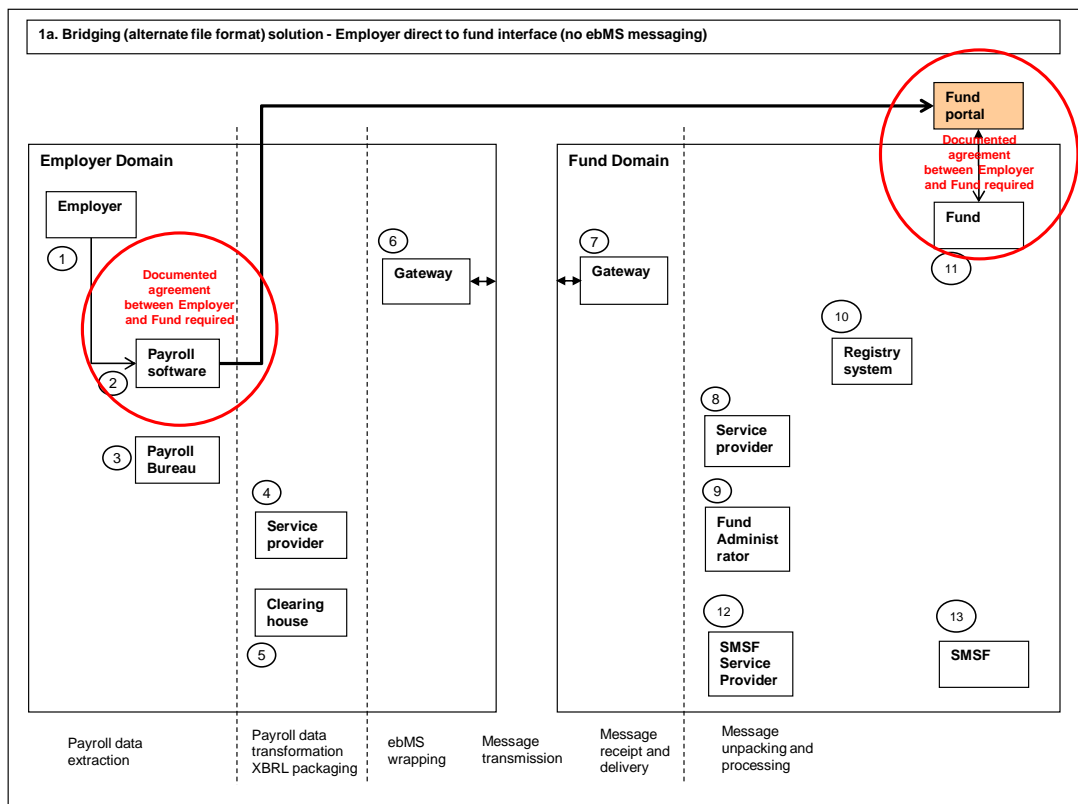
6 SOLUTION SCENARIOS

This section illustrates each of the solution scenarios listed in section 3.1.3.

6.1 EMPLOYER BRIDGING SOLUTIONS

6.1.1 (1a) Bridging solution (alternate file format) - Employer direct to fund interface (no ebMS messaging)

The employer uses their own or commercial payroll software to extract the payroll data. The payroll data is then transferred directly to the fund using, for example, a fund portal.



Certification:

A bridging (alternate file format) solution does not require 3rd party certification. However, a bridging solution must have a documented agreement (as described below) between the employer and the fund involved.

6.1.1.1 Bridging solution conditions

The following conditions must be satisfied for a bridging solution:

- Funds and employers must enter into a written agreement stating that a bridging solution (alternate arrangement) is being used to meet the standard.
- Terms and definitions in the bridging solution align with terms and conditions specified in Schedule 2 of the standard.
 - Funds must document how alternative data elements map to the data elements outlined in Schedule 4a of the standard.
- Business rules and data requirements used in the alternate format align with those specified in Schedule 4a of the standard.
- Payments must conform to the Payment Methods outlined in Schedule 3 of the Standard.

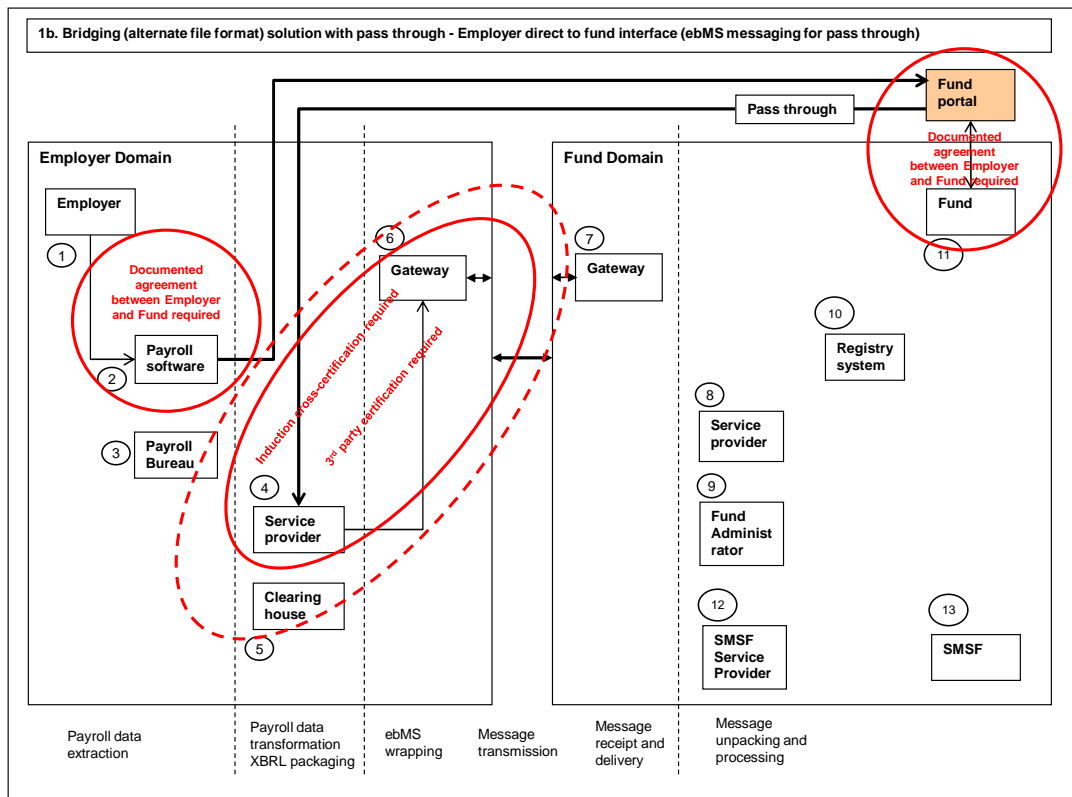
To be an enduring solution, a bridging solution must have the following capability:

- A single address and point of entry for all contributions (default and choice) received by a default fund.
 - Choice contributions are on-forwarded in a standards-compliant format and within the performance standards as set out in the regulation.
- The ability to receive standards-based contributions sent by an employer (or their agent) from their payroll solution.
 - Contributions sent using the standard must be received and processed by the default fund in that format.

6.1.2 (1b) Bridging solution (alternate file format) with pass-through - Employer direct to fund interface (ebMS messaging for pass-through)

The employer uses their own or commercial payroll software to extract the payroll data. The payroll data is then transferred directly to the employer's default fund using, for example, a fund portal.

The pass-through solution implement by the fund passes the contributions messages that are not for the default fund on to a messaging service provider and gateway combination that then forwards those contributions to other (choice) funds as SuperStream compliant messages.



Certification:

A bridging (alternate file format) solution does not require 3rd party certification. However, a bridging solution must have a documented agreement (as described in solution 1a) between the employer and the fund involved.

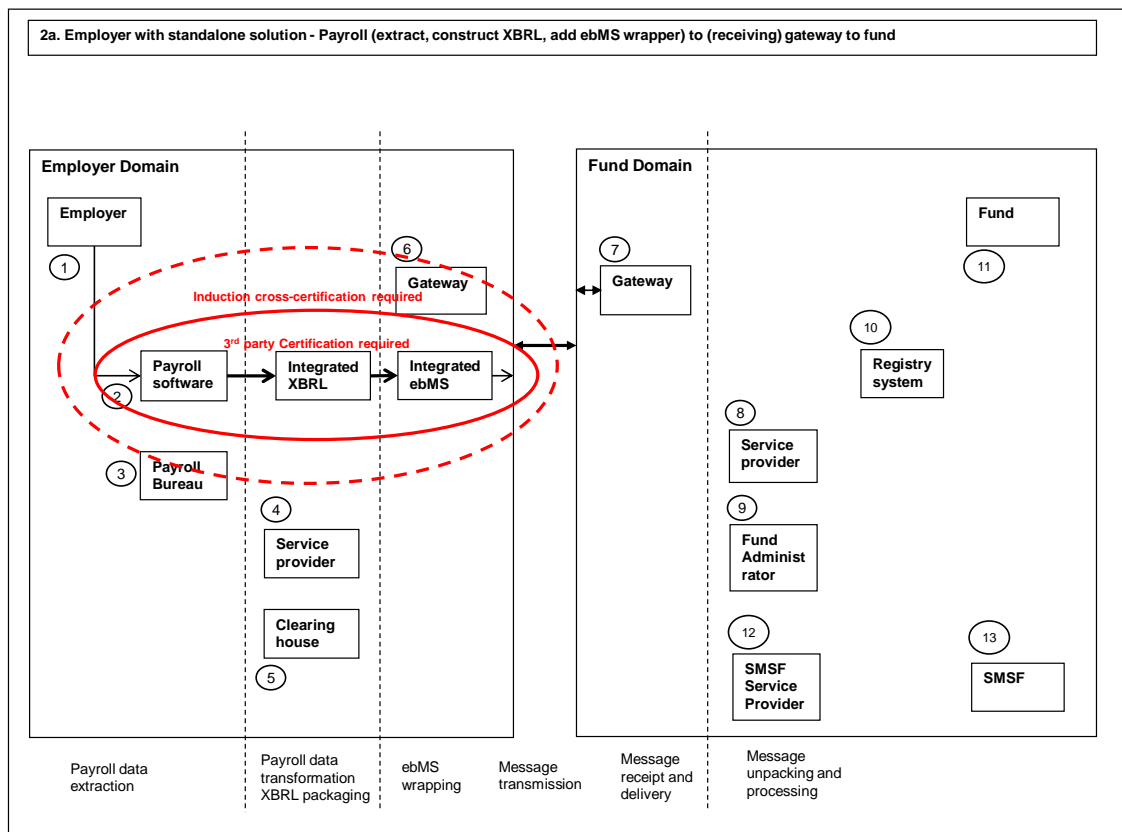
The pass-through solution associated with a bridging solution will require both 3rd party certification and induction cross-certification as it involves sending a SuperStream conforming payload and message protocol (i.e. XBRL and ebMS).

6.2 EMPLOYER WITH STANDALONE SOLUTION INCLUDING MESSAGING TO RECEIVING GATEWAY TO FUND

6.2.1 (2a) Employer with standalone solution - Payroll (extract, construct XBRL, add ebMS wrapper) to (receiving) gateway to fund

The employer uses their own or commercial payroll software to extract the payroll data. An integrated internal process is used to transform the data into XBRL and internal integrated ebMS messaging capability is used to pass the ebMS message to the fund's gateway service.

Implementation of such solutions may be difficult in the short term as they would require time to complete a period of interoperability testing with the gateway community.



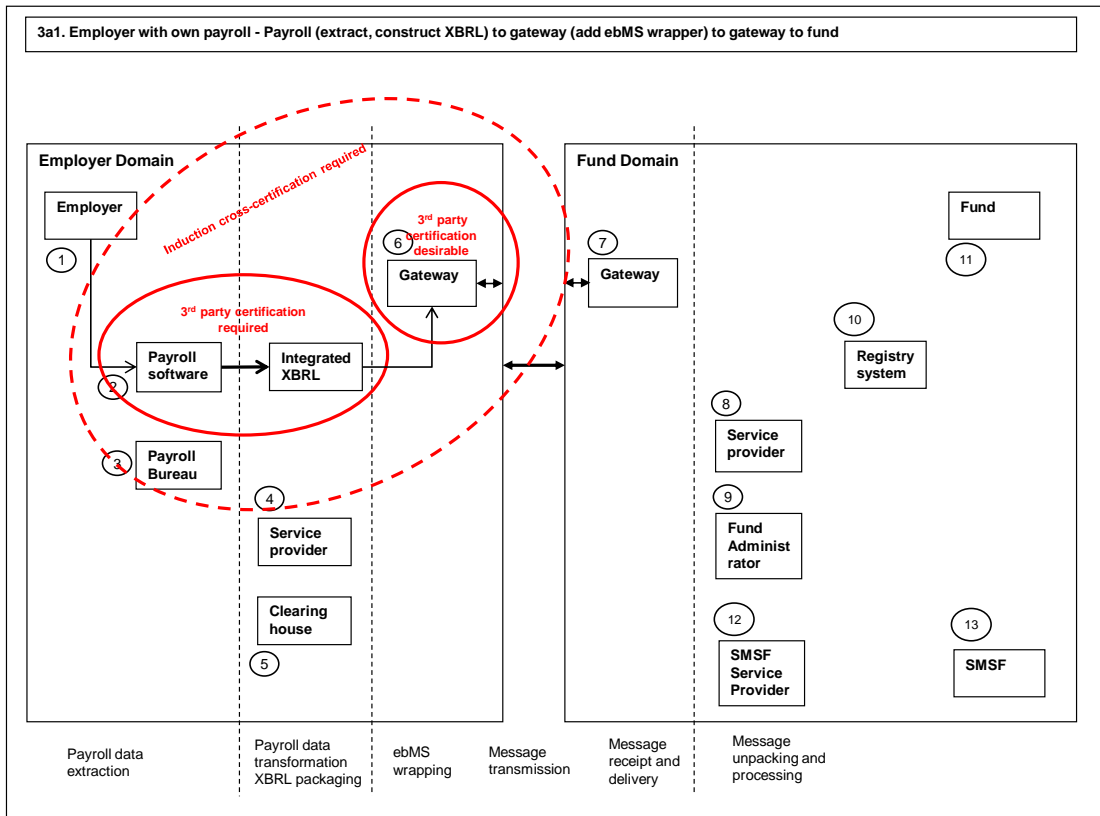
Certification:

An employer stand-alone solution as described above will require both 3rd party certification and induction cross-certification and acceptance in to the SuperStream network.

6.3 EMPLOYER WITH OWN PAYROLL SYSTEM OR PAYROLL BUREAU

6.3.1 (3a1) Employer with own payroll - Payroll (extract, construct XBRL) to gateway (add ebMS wrapper) to gateway to fund

The employer uses their own payroll software to extract the payroll data. An integrated internal process is used to transform the data and deliver the XBRL message to a contracted gateway service provider who passes the ebMS message to the fund's gateway service



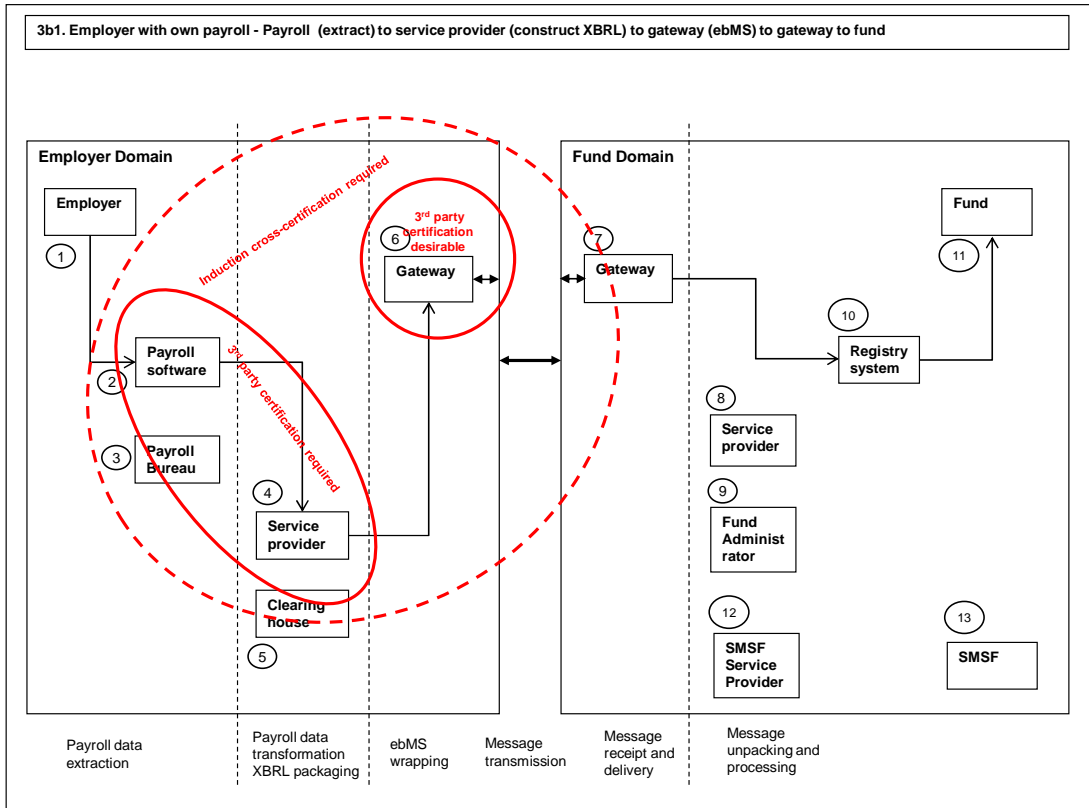
Certification:

The employer payroll and integrated XBRL solution as described above will require both 3rd party certification and induction cross-certification.

Gateway induction cross-certification is mandatory but 3rd party certification is not.

6.3.3 (3b1) Employer with own payroll - Payroll (extract) to service provider (construct XBRL) to gateway (ebMS) to gateway to fund

The employer uses their own payroll software to extract the payroll data. An external service provider is used to transform the data and deliver the XBRL message to a contracted gateway service provider who passes the ebMS message to the fund's gateway service. The fund's gateway service passes the ebMS message to the fund's gateway service, which then passes it to the fund's registry system, and finally to the fund.



Certification:

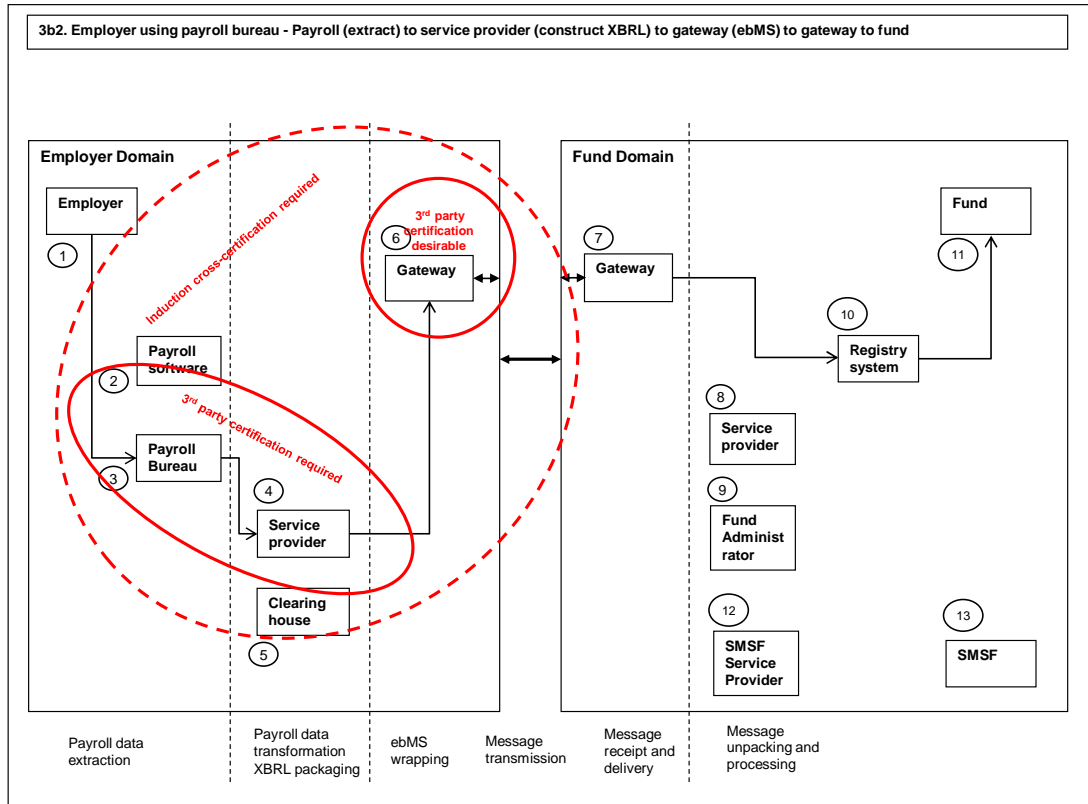
The employer payroll and service provider solution as described above will require both 3rd party certification and induction cross-certification.

The 3rd party certification will apply to the service provider solution and will require the cooperation of the payroll solution in producing test data extracts.

Gateway induction cross-certification is mandatory but 3rd party certification is not.

6.3.4 (3b2) Employer using payroll bureau - Payroll (extract) to service provider (construct XBRL) to gateway (ebMS) to gateway to fund

The employer uses their own payroll software to extract the payroll data. An external service provider is used to transform the data and deliver the XBRL message to a contracted gateway service provider who passes the ebMS message to the fund's gateway service. The fund's gateway service passes the ebMS message to the fund's gateway service.



Certification:

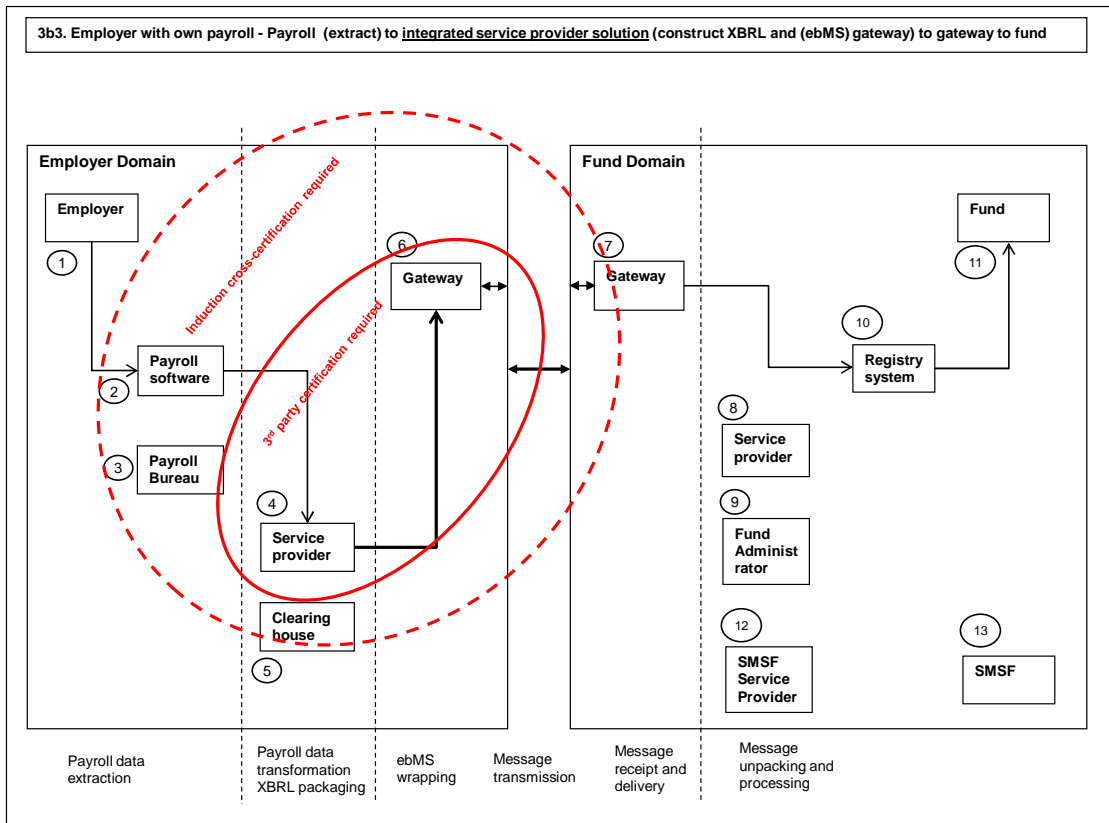
The employer payroll bureau and service provider solution as described above will require both 3rd party certification and induction cross-certification.

The 3rd party certification will apply to the service provider solution and will require the cooperation of the payroll bureau solution in producing test data extracts.

Gateway induction cross-certification is mandatory but 3rd party certification is not.

6.3.5 (3b3) Employer with own payroll - Payroll (extract) to integrated service provider solution (construct XBRL and (ebMS) gateway) to gateway to fund

The employer uses their own payroll software to extract the payroll data. An external service provider is used to transform the data and deliver the XBRL message to a contracted gateway service provider who passes the ebMS message to the fund's gateway service. The fund's gateway service passes the ebMS message to the fund's gateway service.



Certification:

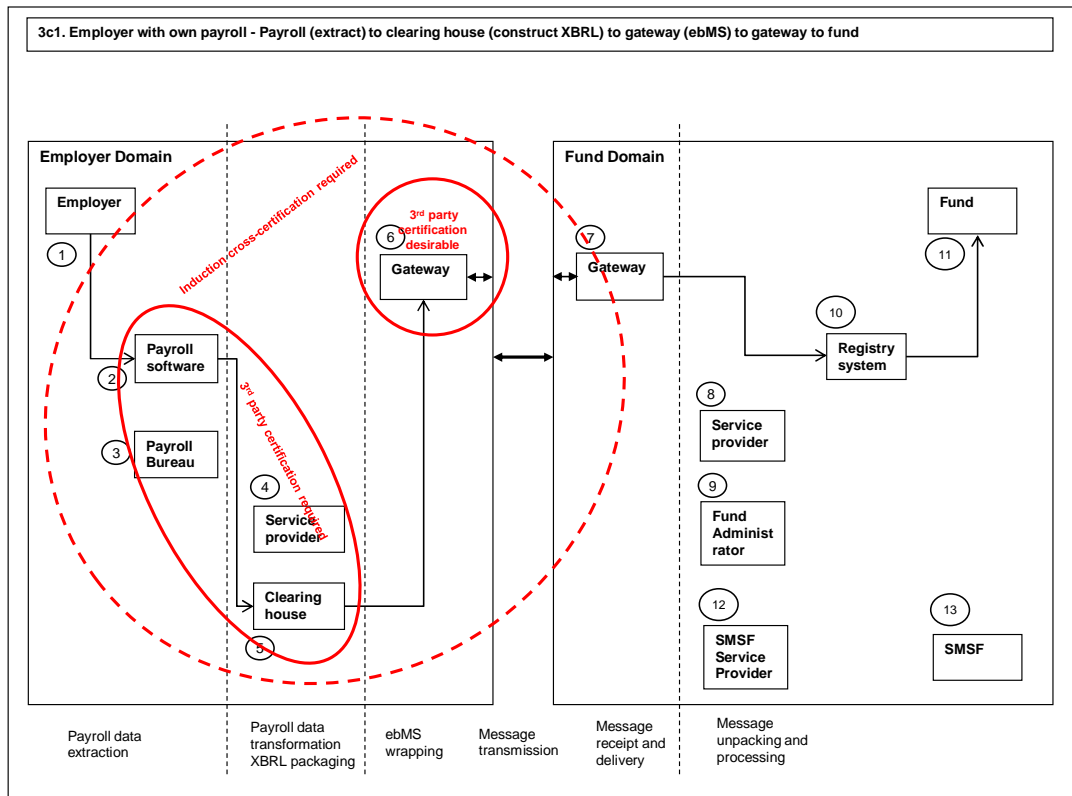
The employer payroll and gateway integrated service provider solution as described above will require both 3rd party certification and induction cross-certification.

The 3rd party certification will apply to the gateway integrated service provider solution and will require the cooperation of the payroll solution in producing test data extracts.

In this scenario, gateway involvement in 3rd party certification will be required. Gateway induction cross-certification is mandatory.

6.3.6 (3c1) Employer with own payroll - Payroll (extract) to clearing house (construct XBRL) to gateway (ebMS) to gateway to fund

The employer uses their own payroll software to extract the payroll data. A clearing house service is used to transform the data, (and probably make payment), and deliver the XBRL message to a contracted gateway service provider who passes the ebMS message to the fund's gateway service.



Certification:

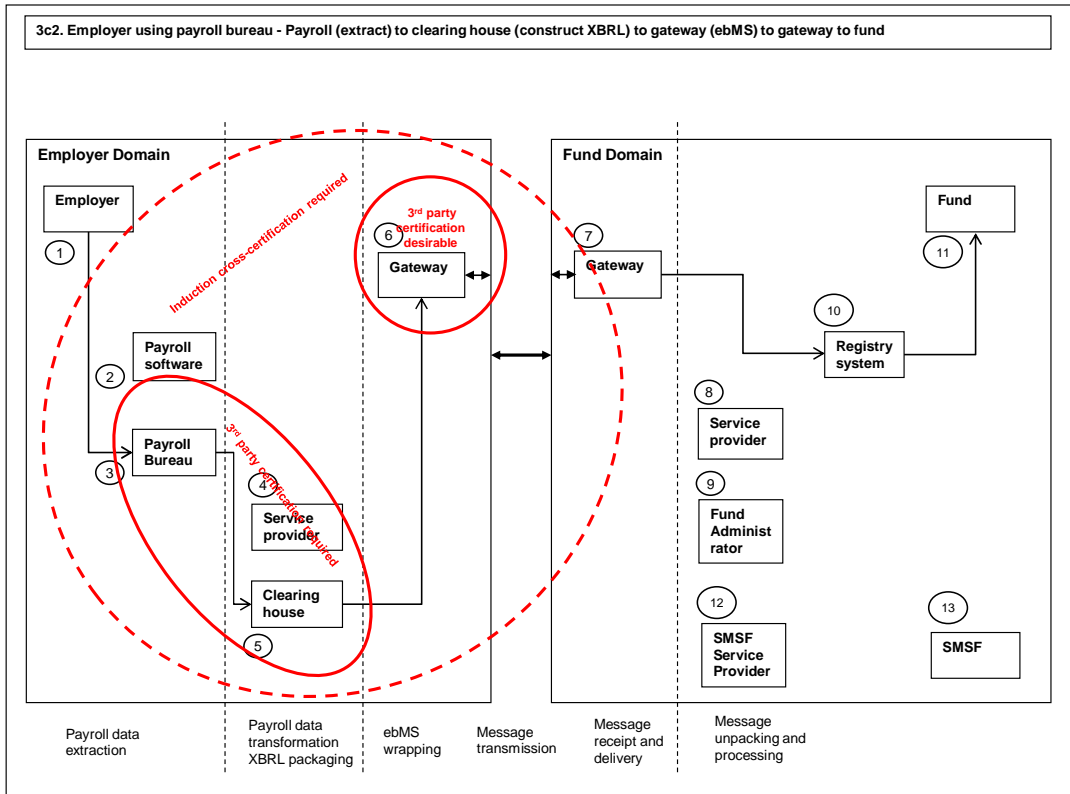
The employer payroll and clearing house solution as described above will require both 3rd party certification and induction cross-certification.

The 3rd party certification will apply to the clearing house solution and will require the cooperation of the payroll solution in producing test data extracts.

Gateway induction cross-certification is mandatory but 3rd party certification is not.

6.3.7 (3c2) Employer using payroll bureau - Payroll (extract) to clearing house (construct XBRL) to gateway (ebMS) to gateway to fund

The employer uses their own payroll software to extract the payroll data. A clearing house service is used to transform the data, (and probably make payment), and deliver the XBRL message to a contracted gateway service provider who passes the ebMS message to the fund's gateway service.



Certification:

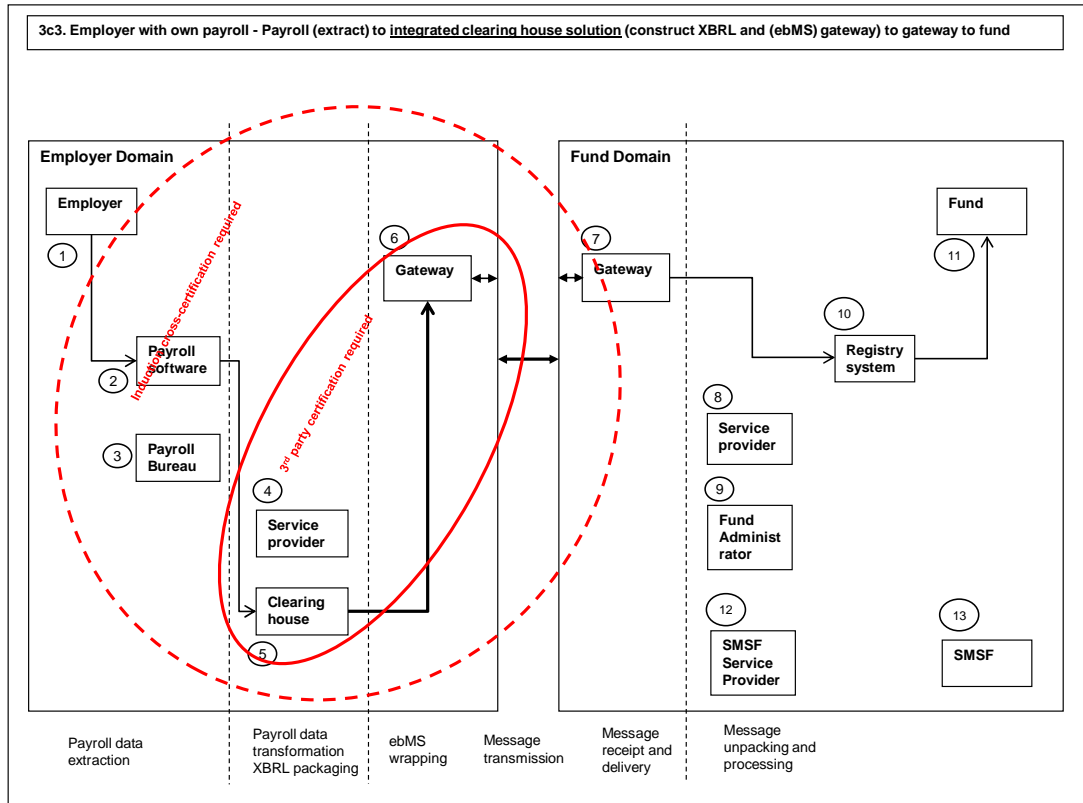
The employer payroll bureau and clearing house solution as described above will require both 3rd party certification and induction cross-certification.

The 3rd party certification will apply to the clearing house solution and will require the cooperation of the payroll bureau solution in producing test data extracts.

Gateway induction cross-certification is mandatory but 3rd party certification is not.

6.3.8 (3c3) Employer with own payroll - Payroll (extract) to integrated clearing house solution (construct XBRL and (ebMS) gateway) to gateway to fund

The employer uses their own payroll software to extract the payroll data. A clearing house service is used to transform the data, (and probably make payment), and deliver the XBRL message to a contracted gateway service provider who passes the ebMS message to the fund's gateway service.



Certification:

The employer payroll and gateway integrated clearing house solution as described above will require both 3rd party certification and induction cross-certification.

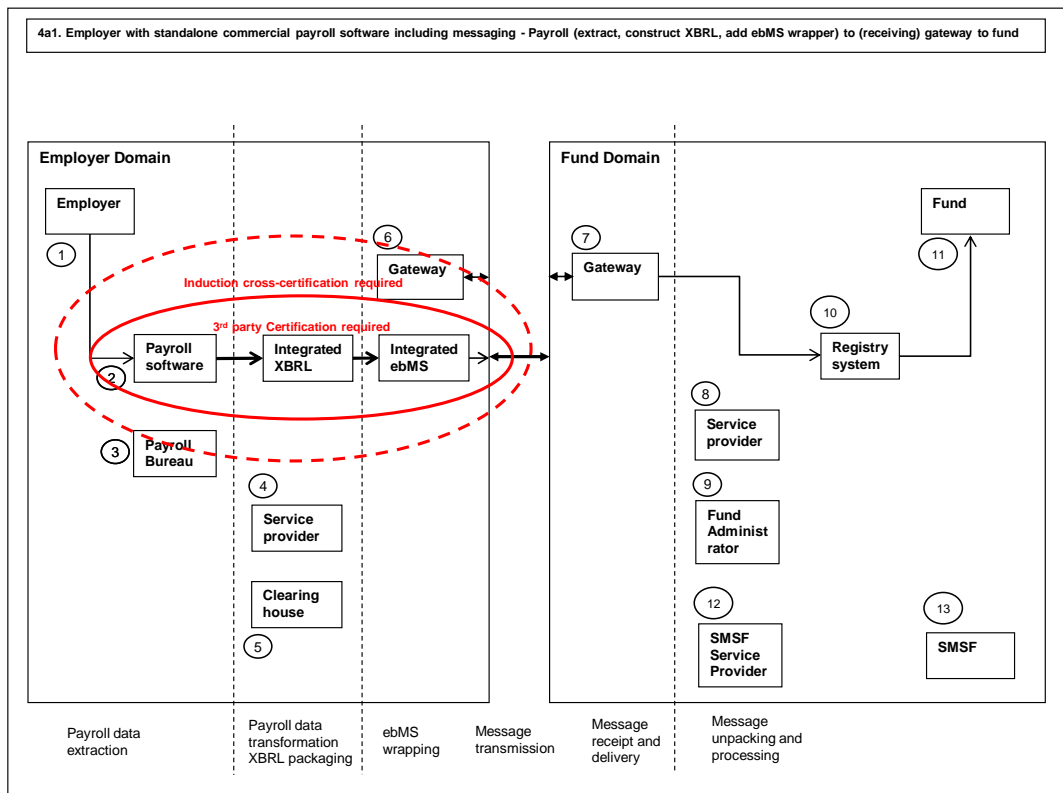
The 3rd party certification will apply to the gateway integrated clearing house solution and will require the cooperation of the payroll solution in producing test data extracts.

In this scenario, gateway involvement in 3rd party certification will be required. Gateway induction cross-certification is mandatory.

6.4 EMPLOYER WITH COMMERCIAL PAYROLL SOFTWARE

6.4.1 (4a1) Employer with standalone commercial payroll software including messaging - Payroll (extract, construct XBRL, add ebMS wrapper) to (receiving) gateway to fund

The employer uses commercial payroll software to extract the payroll data. An integrated internal process is used to transform the data, to XBRL and construct and pass the ebMS message to the fund's gateway service

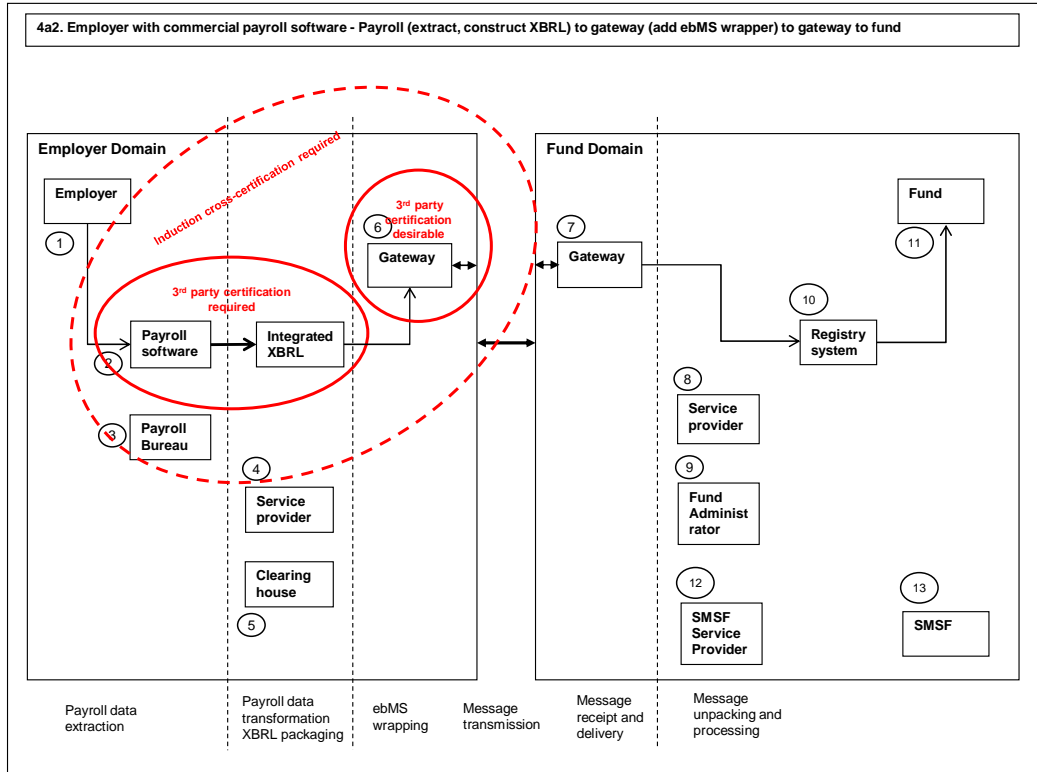


Certification:

The employer payroll and integrated XBRL and messaging solution as described above will require both 3rd party certification and induction cross-certification and acceptance into the SuperStream network.

6.4.2 (4a2) Employer with commercial payroll software - Payroll (extract, construct XBRL) to gateway (add ebMS wrapper) to gateway to fund

The employer uses commercial payroll software to extract the payroll data. An integrated internal process is used to transform the data and deliver the XBRL message to a contracted gateway service provider who passes the ebMS message to the fund's gateway service



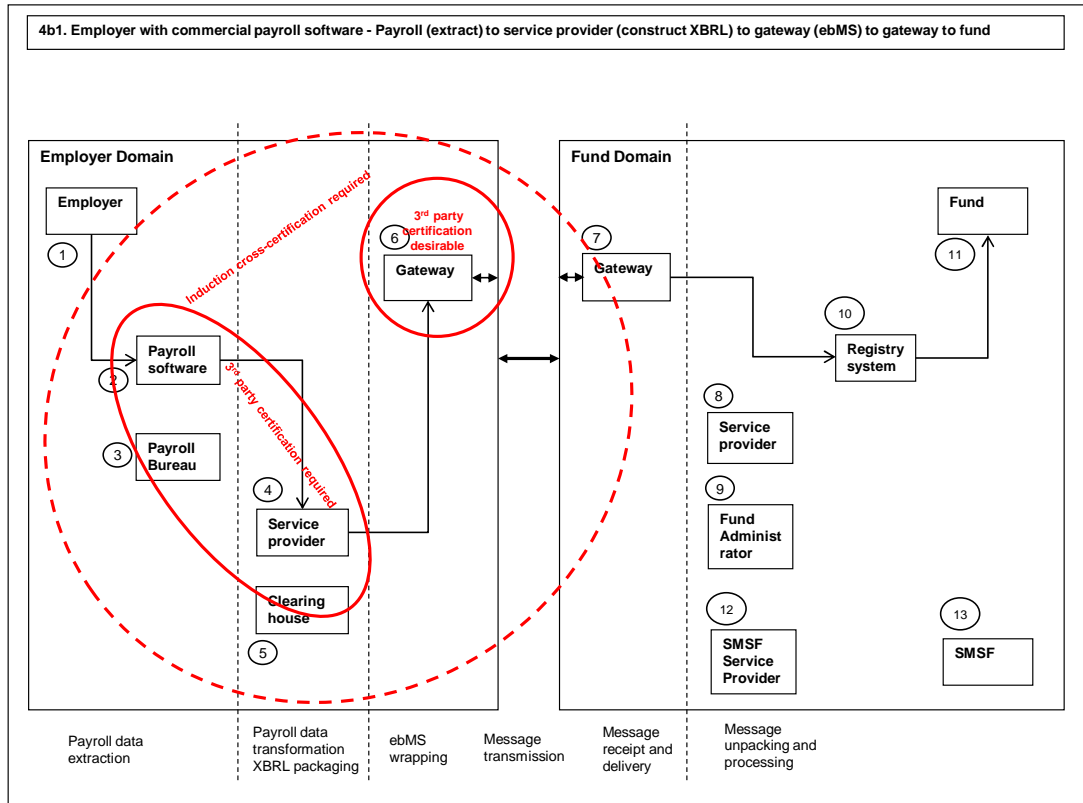
Certification:

The employer commercial payroll and integrated XBRL solution as described above will require both 3rd party certification and induction cross-certification.

Gateway induction cross-certification is mandatory but 3rd party certification is not.

6.4.3 (4b1) Employer with commercial payroll software - Payroll (extract) to service provider (construct XBRL) to gateway (ebMS) to gateway to fund

The employer uses commercial payroll software to extract the payroll data. An external service provider is used to transform the data and deliver the XBRL message to a contracted gateway service provider who passes the ebMS message to the fund's gateway service provider who passes the ebMS message to the fund's gateway service provider.



Certification:

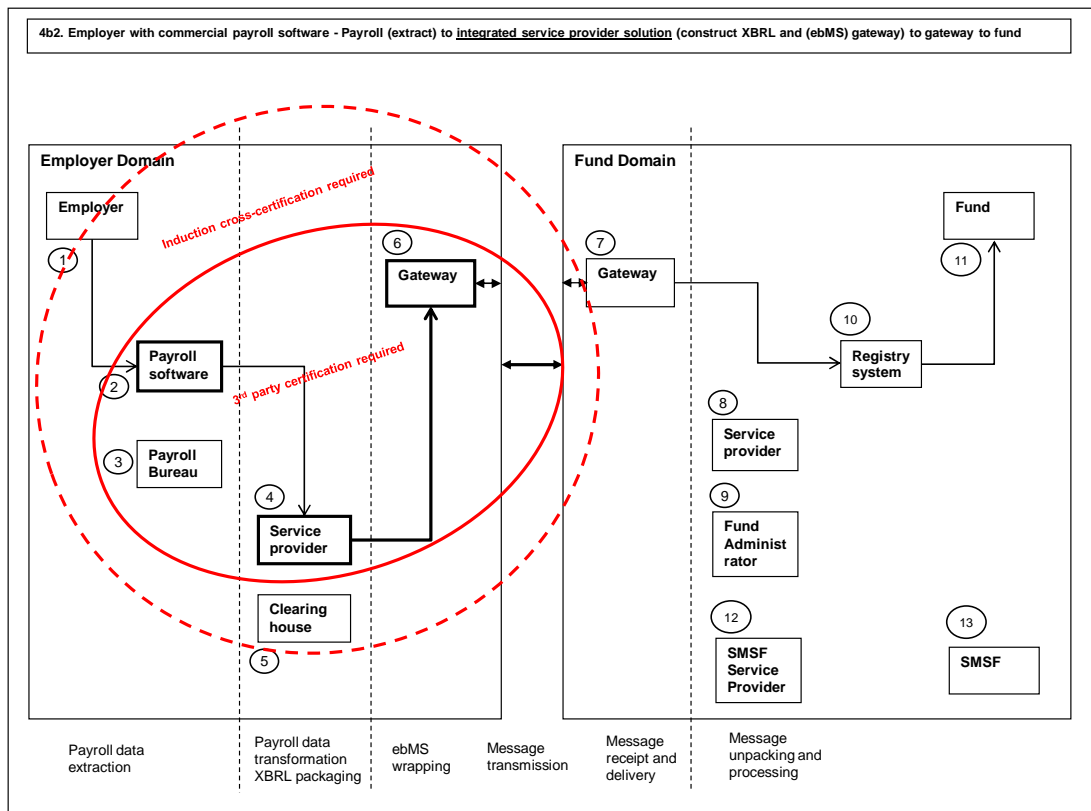
The employer commercial payroll and service provider solution as described above will require both 3rd party certification and induction cross-certification.

The 3rd party certification will apply to both the service provider solution and to the commercial payroll solution and will require the cooperation of the payroll solution in producing test data extracts.

Gateway induction cross-certification is mandatory but 3rd party certification is not.

6.4.4 (4b2) Employer with commercial payroll software - Payroll (extract) to integrated service provider solution (construct XBRL and (ebMS) gateway) to gateway to fund

The employer uses commercial payroll software to extract the payroll data. A gateway integrated service provider is used to transform the data, construct the XBRL message and pass the ebMS message to the fund's gateway service provider.



Certification:

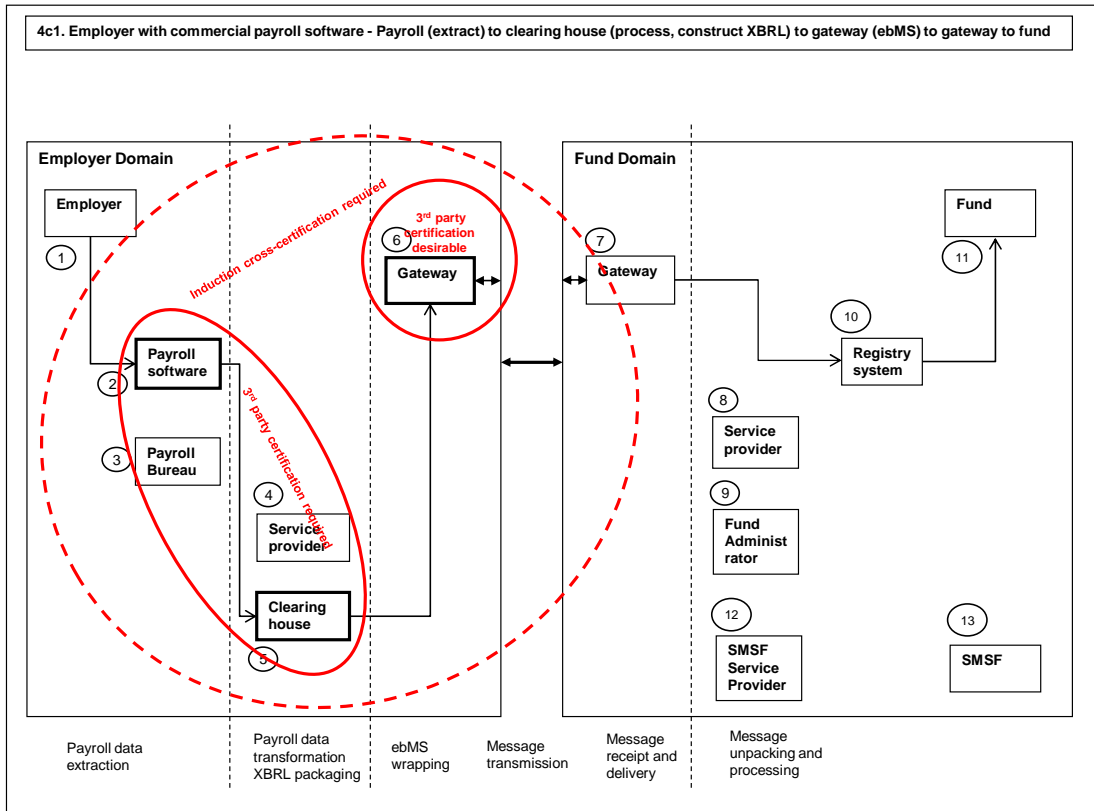
The employer commercial payroll and gateway integrated service provider solution as described above will require both 3rd party certification and induction cross-certification.

The 3rd party certification will apply to both the integrated service provider solution and to the commercial payroll solution and will require the cooperation of the payroll solution in producing test data extracts.

In this scenario, gateway involvement in 3rd party certification will be required. Gateway induction cross-certification is mandatory.

6.4.5 (4c1) Employer with commercial payroll software - Payroll (extract) to clearing house (process, construct XBRL) to gateway (ebMS) to gateway to fund

The employer uses their own payroll software to extract the payroll data. A clearing house service is used to transform the data, (and probably make payment), and deliver the XBRL message to a contracted gateway service provider who passes the ebMS message to the fund's gateway service.



Certification:

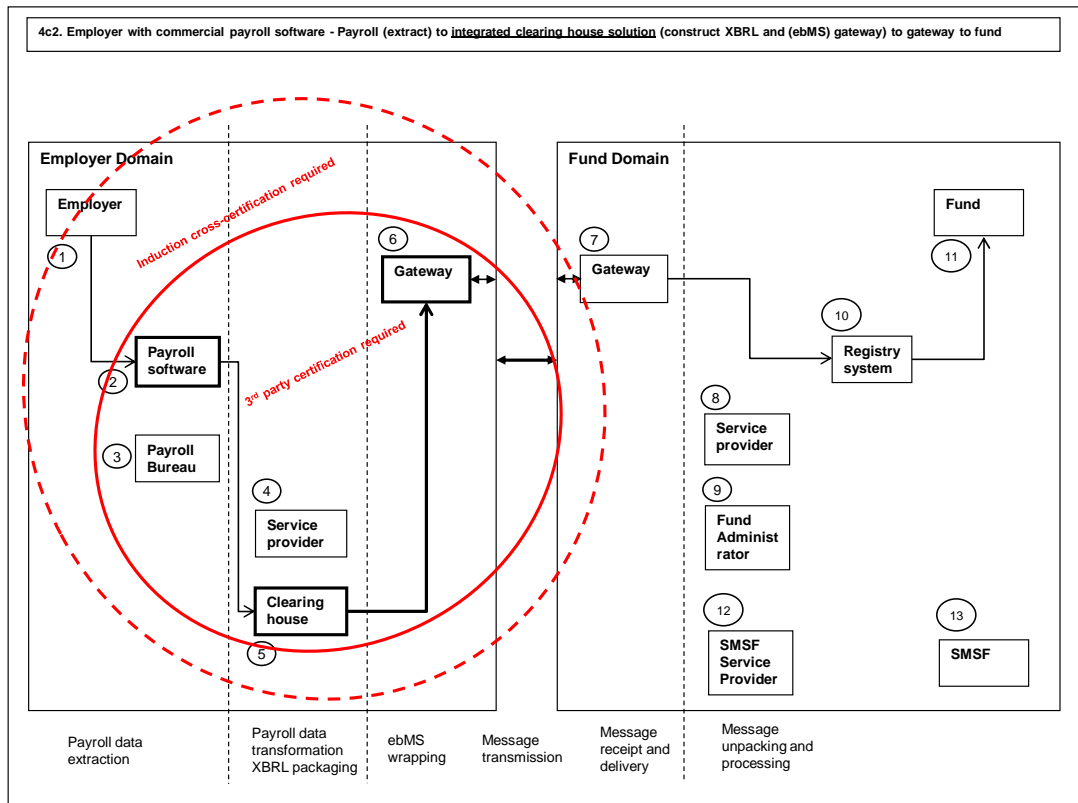
The employer commercial payroll and clearing house solution as described above will require both 3rd party certification and induction cross-certification.

The 3rd party certification will apply to both the clearing house solution and to the commercial payroll solution and will require the cooperation of the payroll solution in producing test data extracts.

Gateway induction cross-certification is mandatory but 3rd party certification is not.

6.4.6 (4c2) Employer with commercial payroll software - Payroll (extract) to integrated clearing house solution (construct XBRL and (ebMS) gateway) to gateway to fund

The employer uses their own payroll software to extract the payroll data. A gateway integrated clearing house is used to transform the data, (and probably make payment), construct the XBRL message and pass the ebMS message to the fund's gateway service provider the ebMS message to the fund's gateway service.



Certification:

The employer commercial payroll and gateway integrated clearing house solution as described above will require both 3rd party certification and induction cross-certification.

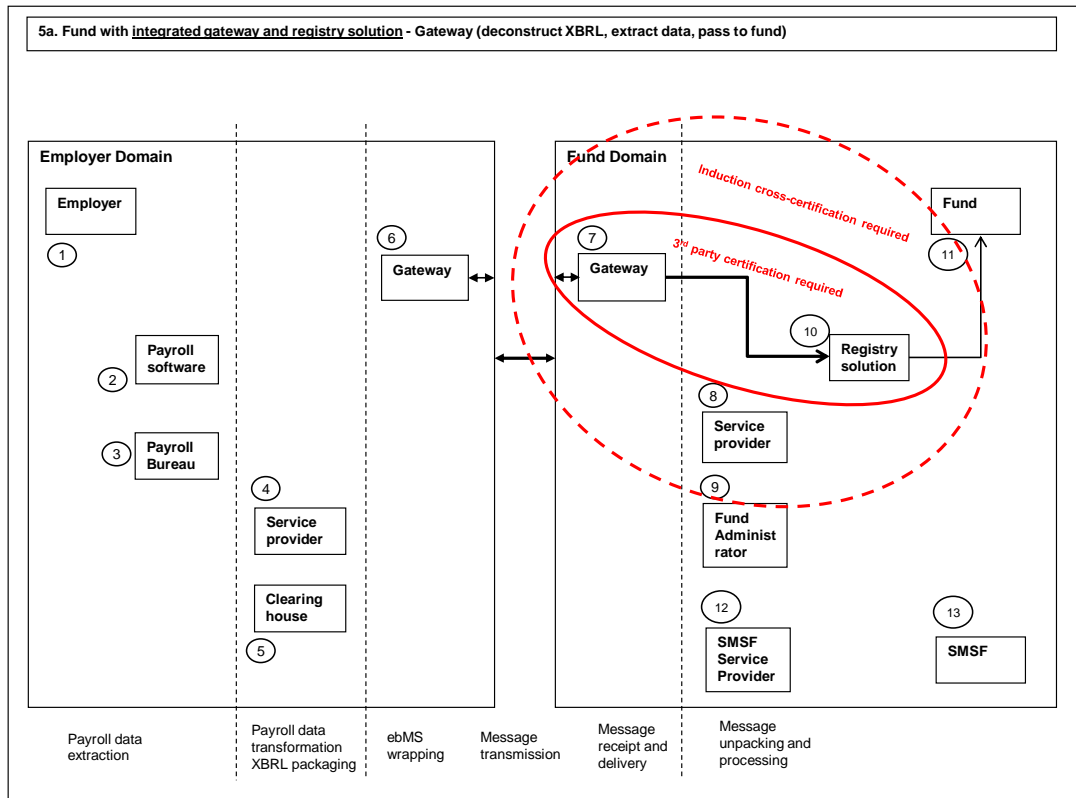
The 3rd party certification will apply to both the integrated gateway clearing house solution and to the commercial payroll solution and will require the cooperation of the payroll solution in producing test data extracts.

In this scenario, gateway involvement in 3rd party certification will be required. Gateway induction cross-certification is mandatory.

6.5 FUND WITH OWN REGISTRY SOLUTION

6.5.1 (5a) Fund with integrated gateway and registry solution - Gateway (deconstruct XBRL, extract data, pass to fund)

The fund gateway receives the message, deconstructs the XBRL content, extracts the data and passes it to the fund registry solution.



Certification:

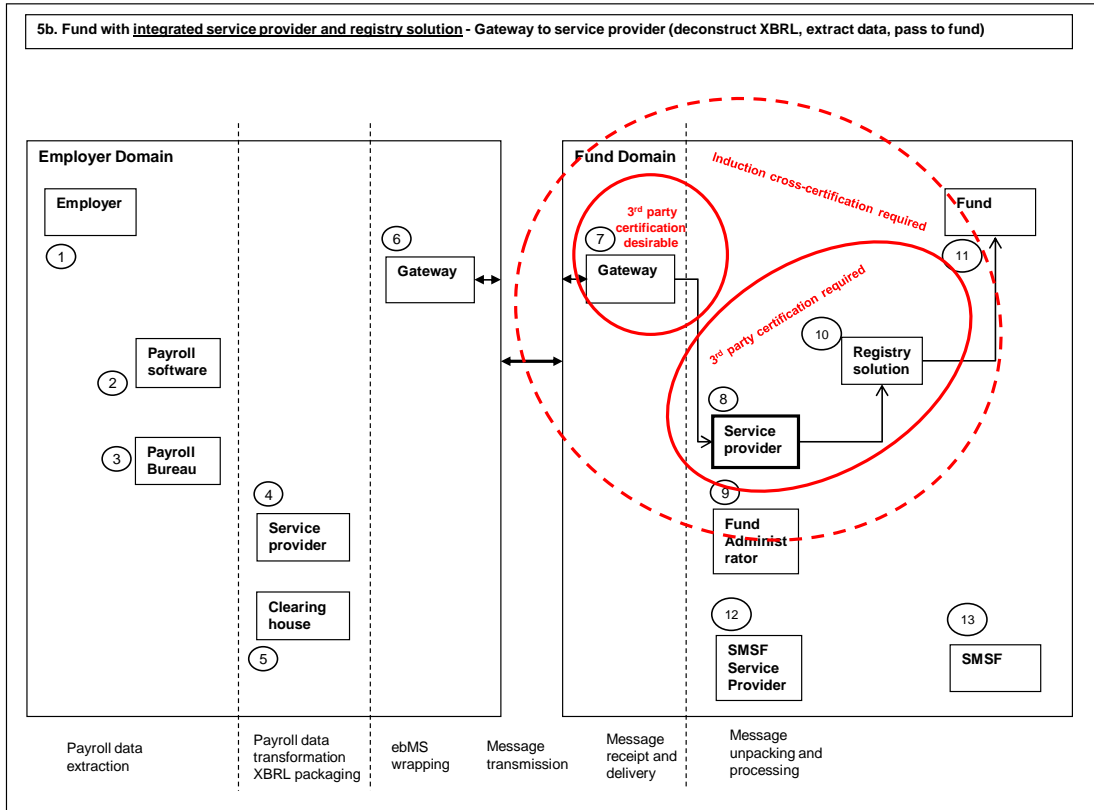
An integrated gateway and registry solution as described above will require both 3rd party certification and induction cross-certification.

The 3rd party certification will apply to the integrated gateway registry solution. Testing of the processing of contributions data to the member record is outside the scope of 3rd party certification.

In this scenario, gateway involvement in 3rd party certification will be required. Gateway induction cross-certification is mandatory.

6.5.2 (5b) Fund with integrated service provider and registry solution - Gateway to service provider (deconstruct XBRL, extract data, pass to fund)

The fund gateway passes the message to a service provider who deconstructs the XBRL message, extracts the data and passes it to the fund registry solution.



Certification:

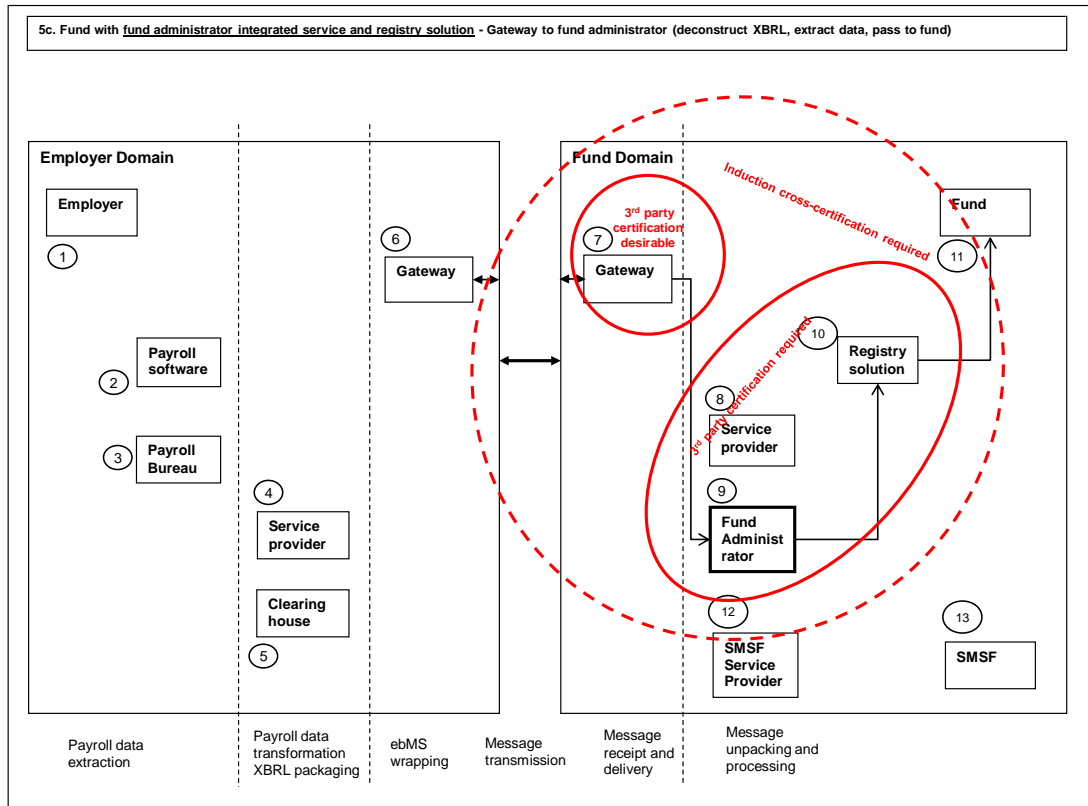
A service provider registry solution as described above will require both 3rd party certification and induction cross-certification.

The 3rd party certification will apply to the service provider registry solution. Testing of the processing of contributions data to the member record is outside the scope of 3rd party certification.

Gateway induction cross-certification is mandatory but 3rd party certification is not.

6.5.3 (5c) Fund with fund administrator integrated service and registry solution - Gateway to fund administrator (deconstruct XBRL, extract data, pass to fund)

The fund gateway passes the message to a service provider who deconstructs the XBRL message, extracts the data and passes it to the fund registry solution.



Certification:

A fund administrator registry solution as described above will require both 3rd party certification and induction cross-certification.

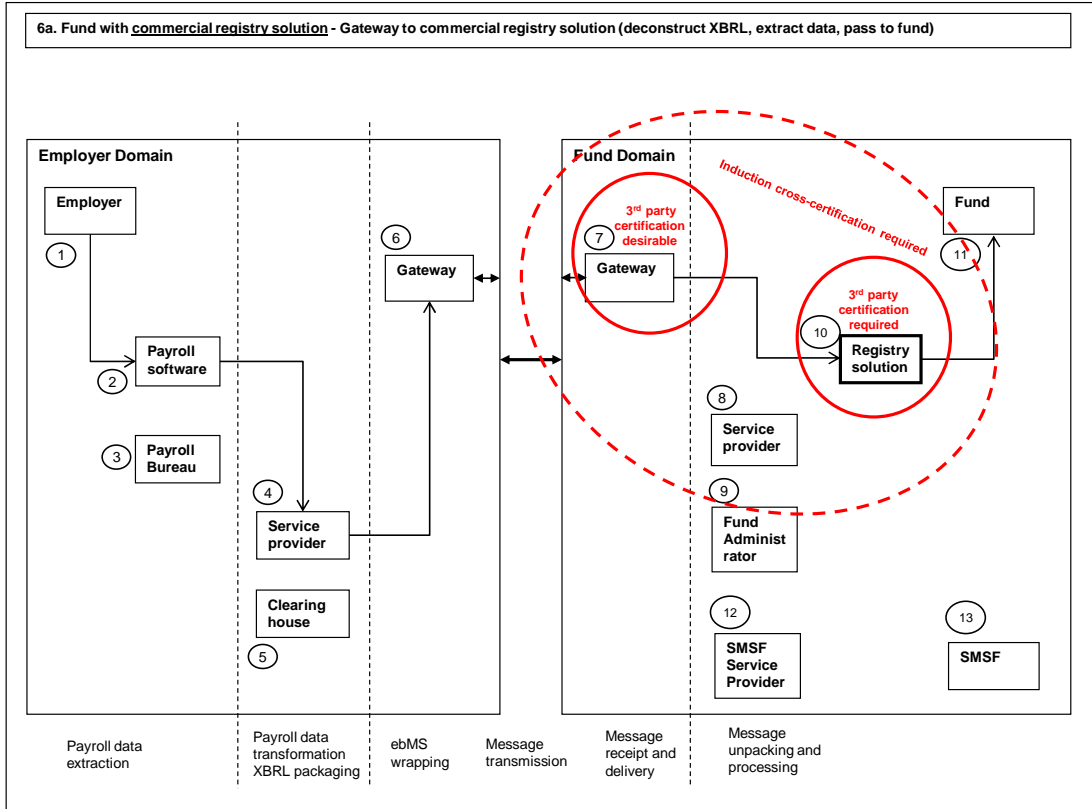
The 3rd party certification will apply to the fund administrator registry solution. Testing of the processing of contributions data to the member record is outside the scope of 3rd party certification.

Gateway induction cross-certification is mandatory but 3rd party certification is not.

6.6 FUND WITH COMMERCIAL REGISTRY SOLUTION

6.6.1 (6a) Fund with commercial registry solution - Gateway to commercial registry solution (deconstruct XBRL, extract data, pass to fund)

The fund gateway passes the message to the fund's commercial registry solution which deconstructs the XBRL message, extracts the data and passes it to the fund.



Certification:

A commercial registry solution as described above will require both 3rd party certification and induction cross-certification.

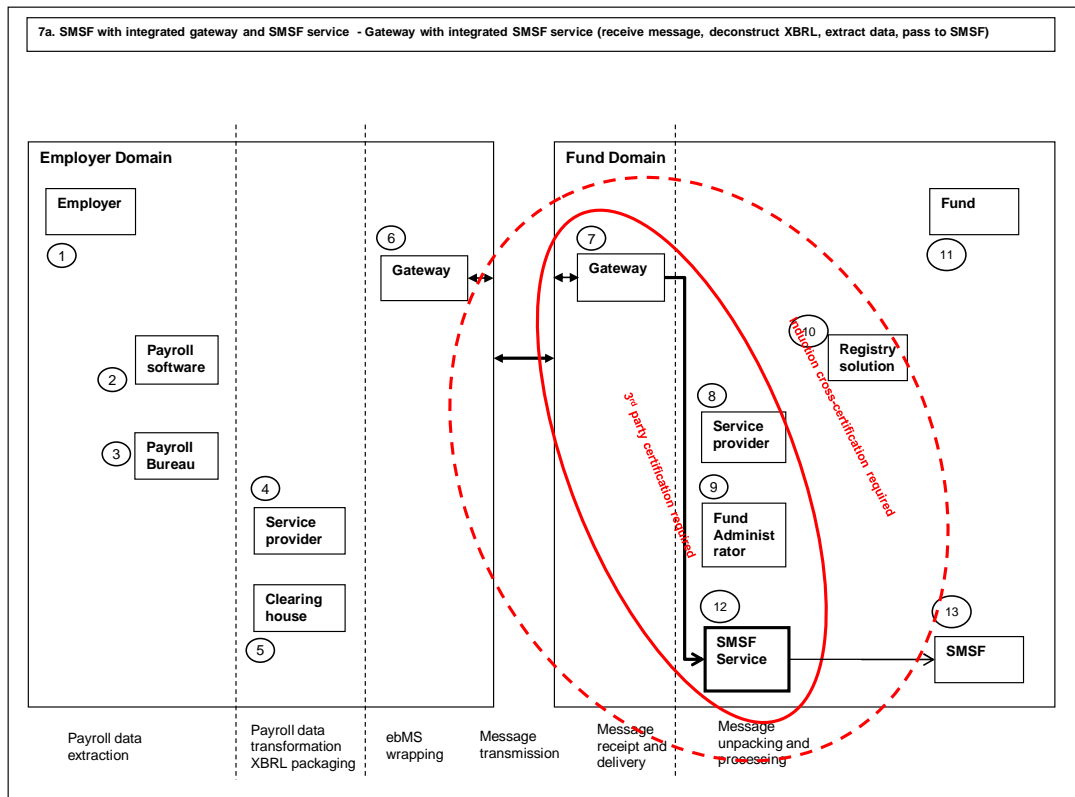
The 3rd party certification will apply to the fund commercial registry solution. Testing of the processing of contributions data to the member record is outside the scope of 3rd party certification.

Gateway induction cross-certification is mandatory but 3rd party certification is not.

6.7 SMSF WITH INTEGRATED GATEWAY SERVICE OR SMSF SERVICE PROVIDER

6.7.1 (7a) SMSF with integrated gateway and SMSF service - Gateway with integrated SMSF service (receive message, deconstruct XBRL, extract data, pass to SMSF)

The gateway receives the message, deconstructs the XBRL message, extracts the data and passes the information to the SMSF.



Certification:

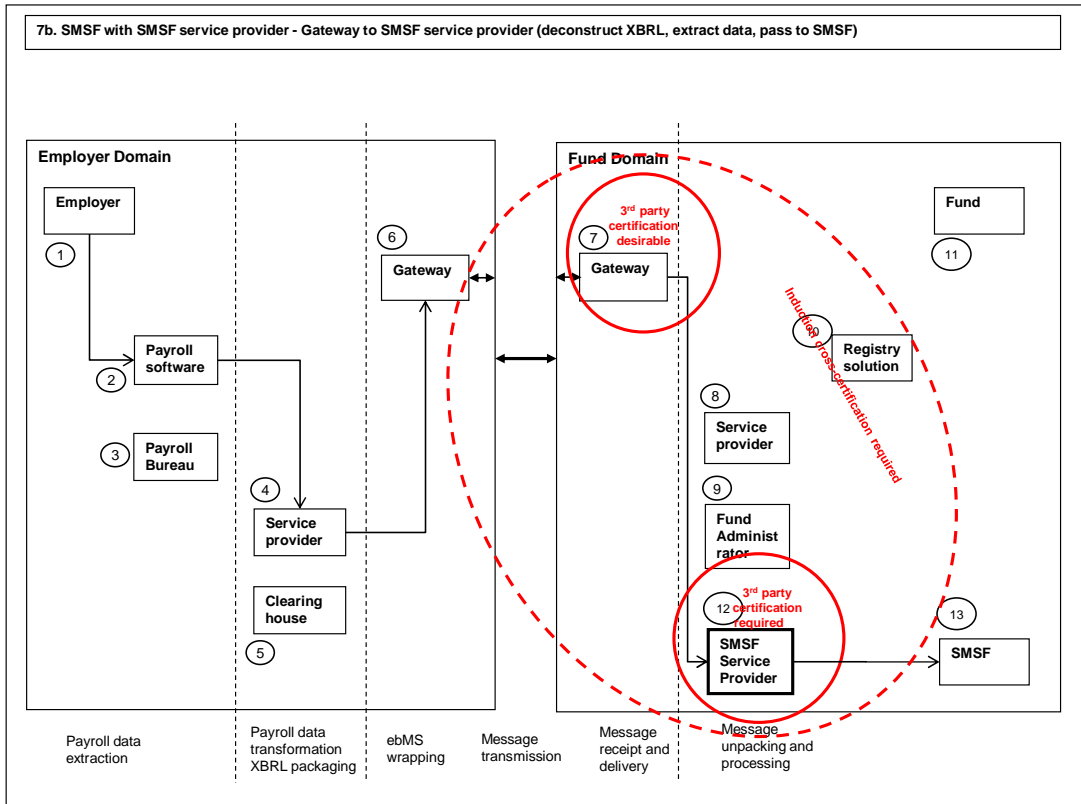
An SMSF gateway integrated registry solution as described above will require both 3rd party certification and induction cross-certification.

The 3rd party certification will apply to the integrated gateway registry solution. Testing of the processing of contributions data to the member record is outside the scope of 3rd party certification.

In this scenario, gateway involvement in 3rd party certification will be required. Gateway induction cross-certification is mandatory.

6.7.2 (7b) SMSF with SMSF service provider - Gateway to SMSF service provider (deconstruct XBRL, extract data, pass to SMSF)

The fund gateway passes the message to the SMSF service provider who deconstructs the XBRL message, extracts the data and notifies the information to the SMSF.



Certification:

An SMSF service provider solution as described above will require both 3rd party certification and induction cross-certification.

The 3rd party certification will apply to the service provider solution. Testing of the processing of contributions data to the member record is outside the scope of 3rd party certification.

Gateway induction cross-certification is mandatory but 3rd party certification is not.

7 APPENDIX A - ERROR MESSAGES

The following table lists standard error messages.

Error Code	Severity	Short description
1 SUPER.GEN.GEN.1	Error	TFN quoted indicator does not match Entity ID scheme.
2 SUPER.GEN.GEN.2	Error	Superannuation Product ID {pin} not known to Superannuation entity ABN {abn}.
3 SUPER.GEN.GEN.3	Error	Employer supplied Member ID used in Entity ID is not unique.
4 SUPER.GEN.GEN.4	Error	Mandatory data element not supplied.
5 SUPER.GEN.GEN.5	Error	Data element contained an unexpected value.
6 SUPER.GEN.GEN.6	Error	Missing context declaration.
7 SUPER.GEN.GEN.7	Error	Conditional data element rule failure.
8 SUPER.GEN.GEN.8	Error	Tuple has too many occurrences for a context declaration.
9 SUPER.GEN.GEN.9	Warning	TFN failed the TFN algorithm check.
10 SUPER.GEN.GEN.10	Error	Too many instances of a context declaration.
11 SUPER.GEN.GEN.11	Error	ABN {abn} not known to the Message Receiver.
12 SUPER.GEN.GEN.12	Error	Payment Reference Number cannot be reconciled to a payment.
13 SUPER.GEN.GEN.13	Error	Unknown Biller Code.
14 SUPER.GEN.GEN.14	Error	Unknown Customer Reference Number.
15 SUPER.GEN.GEN.15	Error	Bank State Branch {bsb} is invalid or not known.
16 SUPER.GEN.GEN.16	Error	Account Number {acctno} is invalid or not known.
17 SUPER.GEN.GEN.17	Error	Account Name {acctname} is invalid or not known.
18 SUPER.GEN.GEN.20	Error	Unknown property within PartProperties.
19 SUPER.GEN.GEN.21	Error	Member not found with supplied information.
20 SUPER.GEN.GEN.22	Error	No Longer a member of Superannuation entity.
21 SUPER.GEN.RLVR.1	Error	SuperannuationRollover.Requested.Amount MUST be provided if SuperannuationRollover.TransferWholeBalance.Indicator is "false".
22 SUPER.GEN.RLVR.2	Information	Rollover Process successful.
23 SUPER.GEN.RLVR.3	Error	ABN defined within the Member Rollover Transaction context was not defined within the Rollover Payment context.
24 SUPER.GEN.RLVR.4	Error	Product ID defined within the Member Rollover Transaction context was not defined within the Rollover Payment context.

25 SUPER.GEN.RLVR.5	Error	Rollover Process unsuccessful.
26 SUPER.GEN.RLVR.6	Error	Rollover could not be processed due to rules within Superannuation entity. Contact Superannuation entity for details.
27 SUPER.GEN.RLVR.7	Error	Rollover could not be processed due to a pending claim.
28		Reserved
29 SUPER.GEN.RLVR.9	Error	The account for the provided member identifier has been closed.
30 SUPER.GEN.CNTRBTN.1	Information	Member registration request was successfully processed.
31		Reserved
32		Reserved
33 SUPER.GEN.CNTRBTN.4	Error	Contributions cannot be accepted from this Contribution Provider.
34 SUPER.GEN.CNTRBTN.5	Error	Member TFN required for this Contribution.
35 SUPER.GEN.CNTRBTN.6	Error	Payment is less than what has been specified with Contribution Transaction Request Message.
36 SUPER.GEN.CNTRBTN.7	Information	Payment is more than what has been specified with Contribution Transaction Request Message.
37 SUPER.GEN.CNTRBTN.8	Error	Eligibility issue preventing the contribution being processed. Contact Superannuation entity for details.