

Superannuation Transaction Network Binding Implementation Practice (BIP) Note

BIP Note 21

Title:	Gateway Network Performance Testing Requirements	Date:	9 December 2015
		Previous BIP:	This BIP replaces BIP 15
Scope:	<input checked="" type="checkbox"/> transport layer <input checked="" type="checkbox"/> message payload <input type="checkbox"/> security	Status:	<input type="checkbox"/> Draft <input checked="" type="checkbox"/> Ratified
		Live Date:	31 October 2015 <i>On this date this BIP note will be binding on all participants</i>

1. Scope

This purpose of the BIP is to define boundaries of Gateway Network Performance to which all gateways have to adhere to as a minimum requirement.

2. Reason for Change

Each gateway should conform to the defined requirements by obtaining third party certification via cross functional testing in order to maintain the operational standards of Superstream messaging in the Superannuation Transaction Network.

3. Standards Affected

No Standards are affected.

4. Description of Change

Below are the requirements outlined for Gateway Network Performance testing in scope:

ID	Area of Testing	Requirements for Receiving Gateways
PR-1	Payload Size	Successful consumption ¹ of payload containing 10,000 member transactions
PR-2	Message Size with Multipart Messages	Successful consumption ¹ of all payloads. Maximum message size is based on the largest possible number of employees for a single employer ² which on the higher limit translates to 20 parts of 10,000 member transactions (message with 200,000 members)
PR-3	Concurrent messaging	Successful consumption ¹ of a minimum of 20 concurrent individual ebms messages which should carry parts containing between 1 and 10,000 members per message with at least one message with 10,000 member transactions as a “concurrency” test. The message payloads should contain a minimum average of 15 member records (not including the 10,000 member record in the average) to simulate a spike in load and must all be delivered simultaneously.
PR-4	Rate of requests and throughput	Successful consumption ¹ of 30 message containing 1000 member records every 30 seconds for 60 minutes.

¹Consumption of payload is defined as reception of an ebms message and delivering the ebms receipt within 90 seconds, after which the message will timeout.

²Individual Payload documents (XBRL) will need to be constructed to not exceed 10,000 individual transactions; and there may be no more than 20 of these per a single Message; leading a maximum of 200,000 such individual transactions per single Message interaction between each Gateway.

Uncompressed XBRL is verbose and easily compressed to at least 50% of original in a performant manner.

Once compressed and signed, these messages will be in the 60Mb range in size.

5. Technical Impact of Change

New entrants and existing gateways will have to ensure via testing that they conform to the minimum performance requirements

6. Operational Impact of Change

None.

7. Version History

Version	Date	Changes	Date Ratified	Live Date
0.1	05 Feb 2015	Initial Version		
0.2	11 Feb 2015	Revisions to sections 2 and 4		
0.3	04 Feb 2015	Revisions to all sections to include maximum messaging specification		
0.4	18 Feb 2015	Removing size specifications and adding extra information in regards to successful consumption		
0.5	26 Aug 2015	Changes to PR3 and PR4		
1.0	03 Sept 2015	Changed status to ratified	27 Aug 15	31 Oct 15
1.1	09 Dec 2015	Clarification of success requirement in PR2 description to consistent with other test cases. No change to ratification or live date	27 Aug 15	31 Oct 15
	Feb 2018	Amended PR 4 to better reflect volumes expected to be able to be managed in a timely manner by the network		