Superannuation Transaction Network
Binding Implementation Practice (BIP) Note

BIP Note [22]

Title:	Deployment Test Message	**Date:**	12 September 2019
		Version:	3.0 ***Replaces BIP Note 7***
Scope:	[x] transport layer [x] message payload [x] security	**Status:**	[] Draft [X] Ratified
		Live Date:	1 January 2020 *On this date this BIP note will be binding on all participants*

1. Change

This document proposes that the gateway network MSH's implement a set of AS4 One Way Push message types for the sole purpose of deployment verification

2. Reason for Change

Gateways will need to update their ebMS 3.0 AS4 Message Service Handler overtime. In the ATO specifications of the message or implementation guides there is no guidance on what should be done to verify the new deployment can interoperate with the other gateways, especially once in production. Of course, the new release should be tested in-house before release, but issues do arise between different MSH implementations.

3. Standards Affected

None

This document proposes that the gateway network MSH's implement a set of two **new** AS4 One Way Push message types - for the sole purpose of deployment verification. In this document they will be referred to as "GatewayVerifyRequest" and "GatewayVerifyResponse".

New messages are required because we do not want leakage of test data seeping into any production. Also, as this is primarily a MSH configuration and interoperability test we cannot set up test data in production applications just to handle it.

4. Description of Change

The ebMS 3.0 documentation refer to ping messages that can be used to see if another gateway is alive. These messages are not useful for our purposes specifically as they do not allow for a payload, so we need another mechanism.

We need confidence that messages can be received successfully. ebMS 3.0 AS4 already gives us a vehicle for that and it is called a Non-Repudiation Receipt. To receive a Non-Repudiation Receipt a message must be sent. The current message types are all production message types and hence we need new message types.

A Non-Repudiation receipt will give us confidence that:

- URL endpoint is correct
- HTTP/SSL functions

- ebMS protocol is correct
- Messages arrive
- Messages can be unpacked
- Partner configuration matches
- Certificates are set correctly at both ends

As the gateways have even agreed on a narrower set of options than the profiles set out in "*Data and Payment Standards, Message Orchestration and Profiles", we* can be specific about our message requirements for the verification.

Other requirements are also necessary. The ability to send these messages without having to notify/co-ordinate with the other end means more flexibility in deployments and far less resource and time usage and co-ordination.

Requirements:

- Minimal partner resource interaction (may be required if issues)
- Non-Repudiation Receipt
- Message Signed
- Message has payload as Attachment
- Attachment compressed

The above all means only one thing though, that the MSH can send a message. For true interoperability the MSH also needs to be able to receive a message, hence the requirement for two messages, a "GatewayVerifyRequest" and a "GatewayVerifyResponse".

The response should be sent on a successfully received request message. It should require no human interaction and be automatically triggered. Also, as both the request and the response require a payload, the payloads should be small. There is no actual requirement that they be valid XBRL or XML even. It is probably best they are just small text files with some identifying information inside.

As these are full, heavy-weight messages that must go through the process of encryption (SSL), attachment compression and signing they will require processing power. As the gateways will be processing enough already the number of messages sent should be kept to a minimum. These messages are not intended to be ***pings***.

So a few more requirements:

- Small payload
- Automatic Response trigger
- Minimal messages (Used only for purpose of deployment verification)

**A caveat on this may be in a test environment where they could also be used for initial setup processes.

GatewayVerifyRequest message

P-Mode Parameter	**Value**
PMode[1].BusinessInfo.Service	*http:// aspaustralia.org /service/gateway/1.0*
PMode[1].BusinessInfo.Action	GatewayVerifyRequest

GatewayVerifyResponse message

P-Mode Parameter	Value
PMode[1].BusinessInfo.Service	*http:// aspaustralia.org /service/gateway/1.0*
PMode[1].BusinessInfo.Action	GatewayVerifyResponse

5. Technical Impact of Change

Requires the configuration of new Pmodes.
Requires the setup/configuration/generation of two new messages.

6. Operational Impact of Change

Minimal. If an error occurs support may be required to assist in identifying the issue.

7. Specification of part properties

All the SuperStream messages require the use of part properties in the message. Depending on the message type though these part properties are not the same for all messages. Issues may arise between messaging partners if the receiver is not expecting a particular part property.

This amendment formalises the specification for the Part Properties to remove any ambiguity.

The only mandatory property common to all messages according to "*Data and Payment Standards, Message Orchestration and Profiles, Section 2.2.5"* is "PartID". See except below:

Element	Configuration Note	Optionality
eb:Property	Every part MUST carry a property with an attribute @name value of "PartID".	Mandatory

This is the only SuperStream part property that MAY be used.

There are a number of standard ebMS part properties that could come into play also. As we are sending a compressed attachment then the following must be included.

Attribute Name	Example Values	Optionality
PartID	Part1	Mandatory
CompressionType	application/gzip	Mandatory
MimeType	text/plain, application/xml	Mandatory
CharacterSet	utf-8	Optional

An example ebMS fragment with the maximum number of elements would be:

```
<eb:PartProperties>
<eb:Property name="PartID">Part1</eb:Property>
<eb:Property name="CharacterSet">utf-8</eb:Property>
<eb:Property name="MimeType">application/xml</eb:Property>
<eb:Property name="CompressionType">application/gzip</eb:Property>
</eb:PartProperties>
```

The gateway partners **will not** reject messages for valid use of these part properties, "PartID", "CharacterSet", "MimeType" and "CompressionType".

This amendment formalises the specification use to use only the above elements.

8. Message Conversation Identifier

For operational support purposes ConversationID's must be constructed using the following format which is created by the partner sending the Gateway Verify Request.

GVR.ABN.uniqueIDstring

GVR = Gateway Verify Request or Response

ABN = The ABN id used by the partner that initiates the Gateway Verify Request

UniqueIdString = a unique identifier created by the partner that initiates the Gateway Verify Request.

The ConversationID string length must comply with the ATO standards in terms of maximum length to ensure that this requirement does not impose database field changes.

9. Version History

Version	Date	Changes	Date Ratified	Live Date
0.1	27/02/2014	Initial Version		
1.0	20/05/2014	Change status to Ratified – Endorsed at GOG meeting	15/05/2014	15/05/2014
1.1	29/06/2016	Clarification of use of part properties		
2.0	08/09/2016	Change status to Ratified – Endorsed at GOG meeting	08/09/2016	28/02/2017
	3.0 22/08/2019	Formalising specification of Part Properties		