Data Standards and E-commerce:

Certification of SBR 2.0 with the SuperStream Industry ebMS3|AS4 Solution &

Moving Services from SBR1 to SBR2.0

Presentation to the Super Industry
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Version 1.1
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1. Background to SBR and the SuperStream Data Standards
2. The SBR Business to Government Gateway
3. The SBR ebMS|AS4 Requirements
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1. Adoption of the SuperStream Standard

In October 2012 the Commissioner of Taxation approved the adoption of the ebMS3/AS4 standard, subject to implementation of a transition strategy:

- for the SuperStream business-to-business (B2B) transport mechanism, to manage adoption of the SuperStream standard by funds, employers, self managed super funds, government and software developers.

- as the transport mechanism for ATO’s future engagement with the Standard Business Reporting (SBR), whole of government gateway, for business-to-Government (B2G) reporting and web service interactions with business.

Note:

1. Upgrade of SBR to the ebMS3/AS4 standard is funded by the ATO, not from the SuperStream levy.

2. The ATO is cognisant of the industry request to conform to the B2B implementation wherever possible.
1. The ATO Business Context

Key ATO roles impacted by SuperStream data standards.

As a participant in the superannuation system, the ATO needs to comply with the SuperStream data standards for contributions for its employees.

As a regulator in the superannuation system, the ATO defines & manages the SuperStream data standards and should (could?) comply with them for super transactions similar to B2B super transactions.

As the host of SBR & AUSkey the ATO needs to support the SuperStream data standards, SBR Core services, the SBR SDK and any SBR enabled B2G interactions.

As the provider of services to taxpayers via SBR, the ATO will need to accommodate any change to SBR standards. As a service provider in its own right, the ATO needs to consider utilising the SuperStream data standards across other channels.
The SBR work program supports redevelopment of the business to government elements of the SuperStream program and redevelopment of the ELS electronic lodgement system used by Tax professionals in lodging returns.

SBR 2.0 is being implemented to provide an ebMS3|AS4 compliant B2G gateway solution. IBM are contracted to implement the system, through extension of their Sterling Integrator product. IBM Sterling Integrator is being certified through the Drummond Group process.

A **pilot environment** will be implemented in the SBR testing environment (EVTE) in **February 2014**. This environment is available to test interoperability with SuperStream and ELS-SBR industry products.

The ATO seeks to certify SBR 2.0 interoperability with the SuperStream Gateways.
2. ELS to SBR Project Schedule on a Page

Multiple “sub-releases” within each Public Release

Each sub-release consists of micro design, build, test and deploy activities

Iterative, staggered sub-releases provide planned Pilot Environment drop every 4 weeks
2. The SBR 2.0 B2G Gateway

Common Language

Definitional Taxonomy

Reporting Taxonomy

Transport Mechanism

SBR 1.0 - Core Services

SBR 2.0 ebMS Gateway

Security

AUSkey

Connection

Data Standards B2B Gateway / Point

Connection

Agency Gateway / Point

Agency

LOW END PROFILE

B2G AUTHENTICATION TOKEN

B2G REGISTRATION AND ASSERTION

PRESENT IN STANDARD FORMAT

SBR STANDARD FORMAT

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3. SBR 2.0 B2G ebMS3|AS4 Requirements

The ATO reviewed the SuperSTream (B2G) and ELS-SBR programs and identified the following requirements:

<table>
<thead>
<tr>
<th>BR #</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>BR01</td>
<td>The solution MUST implement the SuperStream ebMSv3/AS4 Schedule 5 required to support ATO’s role as both a regulator and large employer.</td>
</tr>
<tr>
<td>BR02</td>
<td>The solution MUST implement the ebHandler Profile outlined in the AS4 Specification</td>
</tr>
<tr>
<td>BR03</td>
<td>The solution MUST implement the ebMSv3 Message Exchange Patterns required to support the Business Use Cases identified by the ATO.</td>
</tr>
<tr>
<td>BR04</td>
<td>The solution MUST be interoperability tested.</td>
</tr>
<tr>
<td>BR05</td>
<td>The solution MUST be certified against the ATO statement of requirements using industry standard 3rd Party assurers. Eg. Drummond group</td>
</tr>
<tr>
<td>BR06</td>
<td>The solution MUST support both the AS4 Initiator and Responder Message Service Handler (MSH) roles.</td>
</tr>
<tr>
<td>BR07</td>
<td>The solution MUST provide sufficient management reporting to allow the ATO to effectively manage data transfers as currently available in Sterling B2B Integrator.</td>
</tr>
<tr>
<td>BR08</td>
<td>The solution MUST provide ATO operational support teams with the tools and resources needed to support the processing of interactions and the support of clients performing those interactions as currently available in Sterling B2B Integrator.</td>
</tr>
<tr>
<td>BR09</td>
<td>The solution MUST support the file sizes and throughput rates expected to be transferred.</td>
</tr>
<tr>
<td>BR10</td>
<td>The service provider MUST provide product documentation on the usage of the ebMSv3/AS4 MEPs, MPC, PModes, Splitting &amp; joining, Bundling, Reliable Messaging and Security.</td>
</tr>
<tr>
<td>BR11</td>
<td>The solution SHOULD be made available to the ATO as release candidates to support early integration. This should be 90 days prior to General Availability Release.</td>
</tr>
<tr>
<td>BR12</td>
<td>The solution SHOULD provide an easy to use component (AS4 Initiator MSH) that can be packaged/deployed/called with SBR Licensed Software Products, subject to separate determination of Licencing arrangements. The solution must provide a programming interface to enable the ATO to develop or extend the SBR software developer kit.</td>
</tr>
</tbody>
</table>

Full ATO specification of requirements:
## 3. SBR ebMS3|AS4 Requirement Summary

<table>
<thead>
<tr>
<th>MEPs</th>
<th>Ultra</th>
<th>Light</th>
<th>High End</th>
<th>Large Volume</th>
<th>Application Gateway</th>
<th>AS4 ebHandler</th>
<th>ATO SBR 2.0 Server</th>
<th>ATO SBR 2.0 Client</th>
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<tr>
<td>One way push (core)</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
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<td>High</td>
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<tr>
<td>(client initiated)</td>
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<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>High</td>
</tr>
</tbody>
</table>

B2B and B2G have mutual and exclusive patterns used, some outside the ebMS3/AS4 standard.

B2B SuperStream

- One way Push
- One way Pull
- Two way Push/Push
- Two way Push/pull
- Two way Pull/Push
- Username & Password Auth
- PKI Auth
- Split/Join
- Multi Hop endpoint
- Reception Awareness
- Reliable Messaging
- Compression Body
- Duplicate detection
- XML Signature
- Security of Attachments
- Transport Level Security

ebMS3/AS4

- MPC sub channels
- Bundling
- Alt Auth of Pull
- XML encryption security

SAML Auth

Two way Synch
- Multi Hop
- Authenticate Pull
- Selective Pull
- MPC

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4. SBR 2.0 B2G Certification Need

1. The ATO expects products to be certified:
   - Vendor - Demonstrated qualifications through an independent body such as the Drummond Group or SuperStream B2B industry testing.
   - Interaction - Demonstrated test of defined B2G transactions to Agency standards. For the ELS-SBR program this means testing of ATO transactions to standards set by the Agency by each software vendor.

2. IBM Sterling Integrator product will be certified through the Drummond Group:
   - We have begun initial conversations with the Drummond Group to unpack how we will test the additional eBMS functions required for B2G.
   - IBM have initiated certification and are subject to the Drummond certification timeframe.

3. SBR will also need to undertake industry testing with the existing Super Gateways.
   - Intent is to prove interoperability between B2B and B2G gateways based on business scenarios.
     NB: Business Transaction testing to be incorporated in SBR 2.0 transition implementation.
   - We seek to understand how we join this process, what the test strategy is and the detailed test cases to be used.
4. SBR B2G / B2B Certification Approach

1. Testing environment;
   - An environment to be provided by the ATO from February 2014. SuperStream Gateway vendors to connect from their own test environment.

2. Test Strategy;
   - An overarching document that outlines the test approach, test levels and scope of testing, identified risks and issues at a high level. Details the communication plan and roles and responsibilities.

3. Individual Test Plan and acceptance criteria;
   - To be created from a template for each vendor.
   - Each plan identifies the scope of testing for that vendor, functions/features to be tested, the test cases to be executed and the acceptance criteria for final certification (e.g., expected results and outstanding defect tolerances).

4. Test Data;
   - The test data sets to be used will validate the parameters of each test case and be from a centrally held database.

5. Results verification;
   - Evidence of the test execution method and results will need to be made available prior to validation.
   - The test environment will be able to track elements of the execution and will be validated against the evidence provided for certification.
5. Moving Services from SBR1 to SBR2 - Fund Impact

Impacts of moving from a SBR1 to SBR2 messaging capability are:

- For single requests moving from the SBR1 Standard Business Document Message (SBDM) message structure and messaging paradigm to an ebMS3 message structure and messaging paradigm.

- For bulk requests moving:
  - The Meta-data information associated with a document from the SBDH to the meta-data record in-front of each document in a single ebMS3 mime part.
  - From the manual Portal bulk upload/download mechanism to an ebMS3 Messaging Exchange Pattern (MEP) of using One-way/Push followed by a One-way/Selective Pull.

General Impacts:
- Having a specific document for each parent (e.g. Fund), rather than repeating the parent details in each of the child documents (e.g. Member).
- Move from the SBR1 Business Event Message Structure to the SuperStream Event message structure, including where there is an overall transmission event structure for B2G interactions.
- Certifying against the SBR2 conformance tests.
5. eCommerce Platform AS4 Message Structures – Single
5. eCommerce Platform AS4 Message Structures – Batch and Bulk

SBR Batch or Bulk Request
AS4 ebMS31 User Message
SwA MIME Multi-Part Message

Batch or Bulk Response
Pull Request
AS4ebMS3 Signal Message
SOAP Message

Bulk or Batch Receipt
AS4ebMS3 Signal Message
SOAP Message

SBR Batch or Bulk Response
AS4 ebMS3 User Message
SwA MIME Multi-Part Message

* Usage of MPCs subject to confirmation

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5. SBR SDK Moving from SBR1 to SBR2 - Fund Impact

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Questions?