OIIE Scenario 10 – Push Intelligent Device Removal/Installation events from IAB to WMS

This scenario details an Intelligent Automation Bus (IAB) system sensing an asset removal/installation at a functional location and subsequent notification to another OIIE enabled system (included example depicts a Work Management System (WMS) being used for maintenance work orders).

Actors

IAB System **(as part of a CMS)**	Notify OIIE Systems of changes in asset configuration
Work Management System	Receive notifications from IAB System of changes in asset configuration Associate asset removal/installation with work order

Data Content

The data sent from the IAB System to the Work Management System is, at a minimum, composed of:

- The functional location

- The serialized asset

- The timestamp of when the installation or removal occurred

In addition, the following data can be sent for context:

- The agent who detected the installation or removal

MIMOSA CCOM Reference Types

For the purposes of reference data management, the following MIMOSA CCOM types may be referenced:

- EventType

    - Asset installs are represented by the 'Installation of Asset on Segment' EventType UUID: ecc99353-412b-4995-bd71-1cbc6fc16c7c

    - Asset removals are represented by the 'Removal of Asset on Segment' EventType UUID: 3a45e126-b234-42a0-b3b1-07c29522d02d

Data Formats

The data published by the IAB System and received by the Work Management System must conform to MIMOSA CCOM BODs.

System Interoperability Events

This Scenario requires the sending/receipt of the following Events:

- Push Asset Configuration Change

Infrastructural Components

ISBM

The communication between all systems occurs via the ISBM using request-response services.

Implementation Requirements

The IAB System must implement a client for the ISBM Consumer Request and Channel Management Services. The IAB System may implement the ISBM Notify Listener Service for message notification.

The Work Management System must implement a client for the ISBM Provider Request and Channel Management Services. The Work Management System may implement the ISBM Notify Listener Service for message notification.

Suggested Channel/Topic Configuration

A channel should be created for install requests and should conform to the following format:

```
/Enterprise/Enterprise Subdivision/.../ISO18435:D1.3/Request
```

For example:

```
/Enterprise/Refinery A/Area A/Light Ends Area/ISO18435:D1.3/Request
```

As outlined in the document ISBM Guidelines, topics should match the message content. Correspondingly, the following topic format should be used:
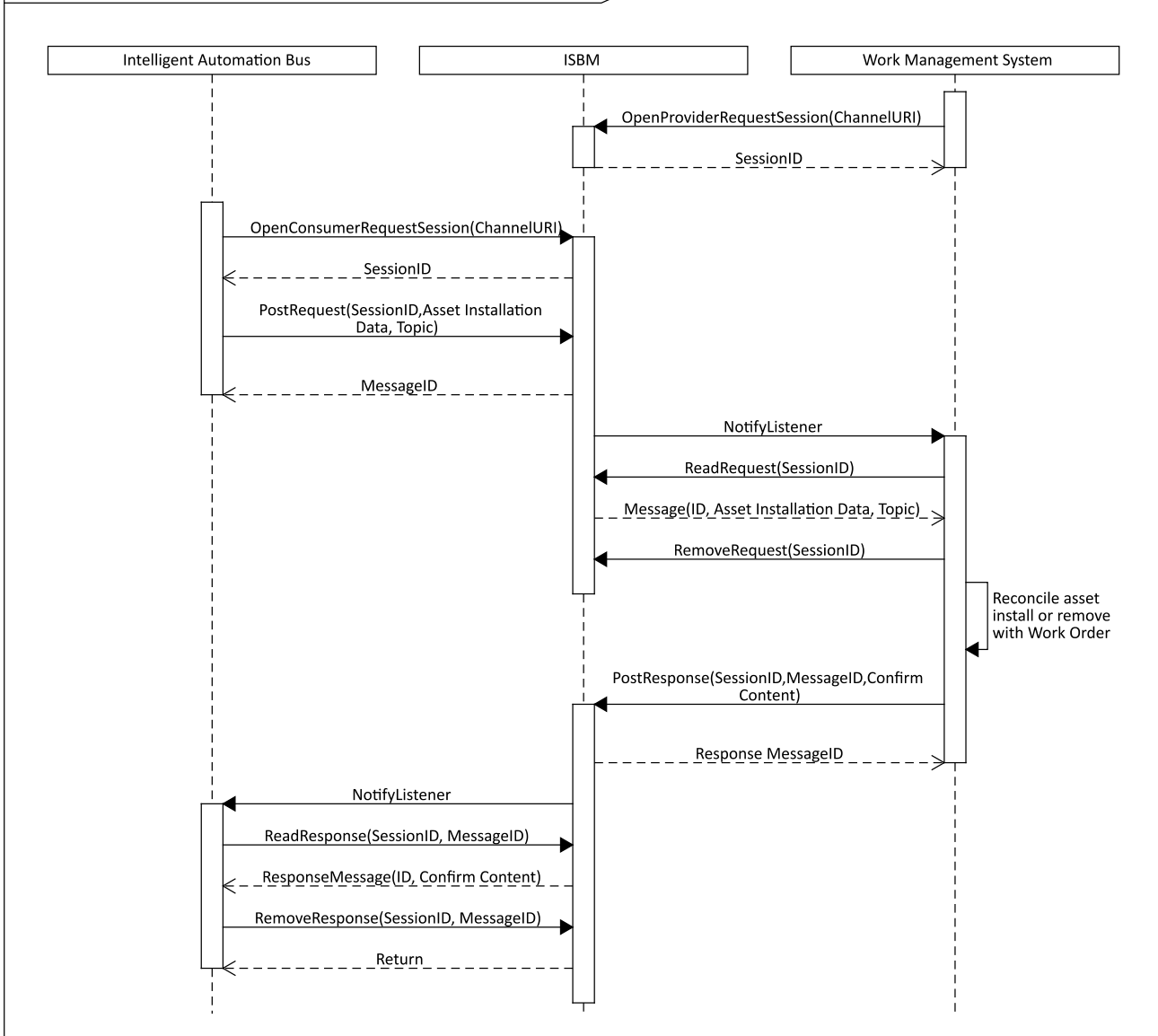
```
OIIE:S10:V1.1/StandardSchemaName{:Version}
```

For example:

```
OIIE:S10:V1.1/CCOM-XML:ProcessAssetSegmentEvents:V1.0
```

Event Sequence

The following diagram represents a simplified set of exemplar interactions between the systems required to achieve this Scenario. The system actors are assumed to have OIIE/ISBM adaptors implemented as required, with services according to the ISBM Implementation Requirements described above. For simplicity, it is assumed that each system/adaptor implements the optional Notify Listener service.

OIIE Scenario 10: Push Intelligent Device Removal/Installation event from IAB to WMS

Version Applicability/Alignment

Scenarios describe general data requirements and, hence, they are aligned to specific versions of CCOM and/or other MIMOSA standards. For example, older versions of CCOM may not include the data elements required by newer Scenarios, while older Scenarios may become obsolete or have their data requirements change over time.

This Scenario is applicable to the following versions of CCOM:

- CCOM 3.x (part of OSA-EAI 3.x)

- CCOM 4.x

NOTE   Use of 'x' in the version number indicates a variable version. For example, "4.x" indicates applicability to all versions of CCOM with the MAJOR version '4', regardless of MINOR and PATCH versions.

Document Versioning

Version	Date	Major Changes
1.2	2020-11-13	Updated to use OpenO&M template
1.1	2019-01-20	Updated to new Use Case Architecture format. Publish-subscribe corrected to request-response for push event.
1.0	2018-02-07	Imported from website-based documentation.