OIIE Scenario 40 – Publish Asset/Package Installation Events from CONSTRUCT to CONSTRUCT, O&M

This scenario details notifications to interested Construction Management Systems, and possibly interested O&M Systems, that a serialized asset or package of assets has been installed. A Construction Work Management System publishes asset install events to all relevant systems. The published event may be for a single asset or a group of assets forming part of a package installation.

Actors

Construction Work Management System	Send (batch) notifications of asset installations
Construction Management Systems	Receive notifications of asset installations
O&M Systems (optional, continuous handover)	Receive notifications of asset installations

Data Content

The data sent from the Construction Work Management System to the other Construction Systems (and possible O&M Systems) is, at a minimum, composed of:

- The functional location(s)
- The serialized asset(s)
- The timestamp(s) of when each installation occurred

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

- The agent who performed the installation or removal
- The calendared work order associated with the installation

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`

System Interoperability Events

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

- Publish Asset Configuration Change

Data Formats

The data published by the Construction Work Management System and received by the Construction/O&M Systems must conform to MIMOSA CCOM BODs.

Infrastructural Components

ISBM

The communication between all systems occurs via the ISBM using publish-subscribe services.

Implementation Requirements

The Construction Work Management System must implement a client for the ISBM Provider Publication and Channel Management (GetChannel operation only) Services.

The Construction/O&M Systems must implement a client for the ISBM Consumer Publication and Channel Management (GetChannel operation only) Services. The Construction/O&M Systems may implement the ISBM Notify Listener Service for message notification.

Suggested Channel/Topic Configuration

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

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

For example:

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

As outlined in the document ISBM Guidelines, topics should match the message content. Correspondingly, the following topic format should be used:

```
OIIE:S40:V1.0/StandardSchemaName{:Version}
```

For example:

```
OIIE:S40:V1.0/CCOM-XML:SyncAssetSegmentEvents:V1.0
```

SDAIR

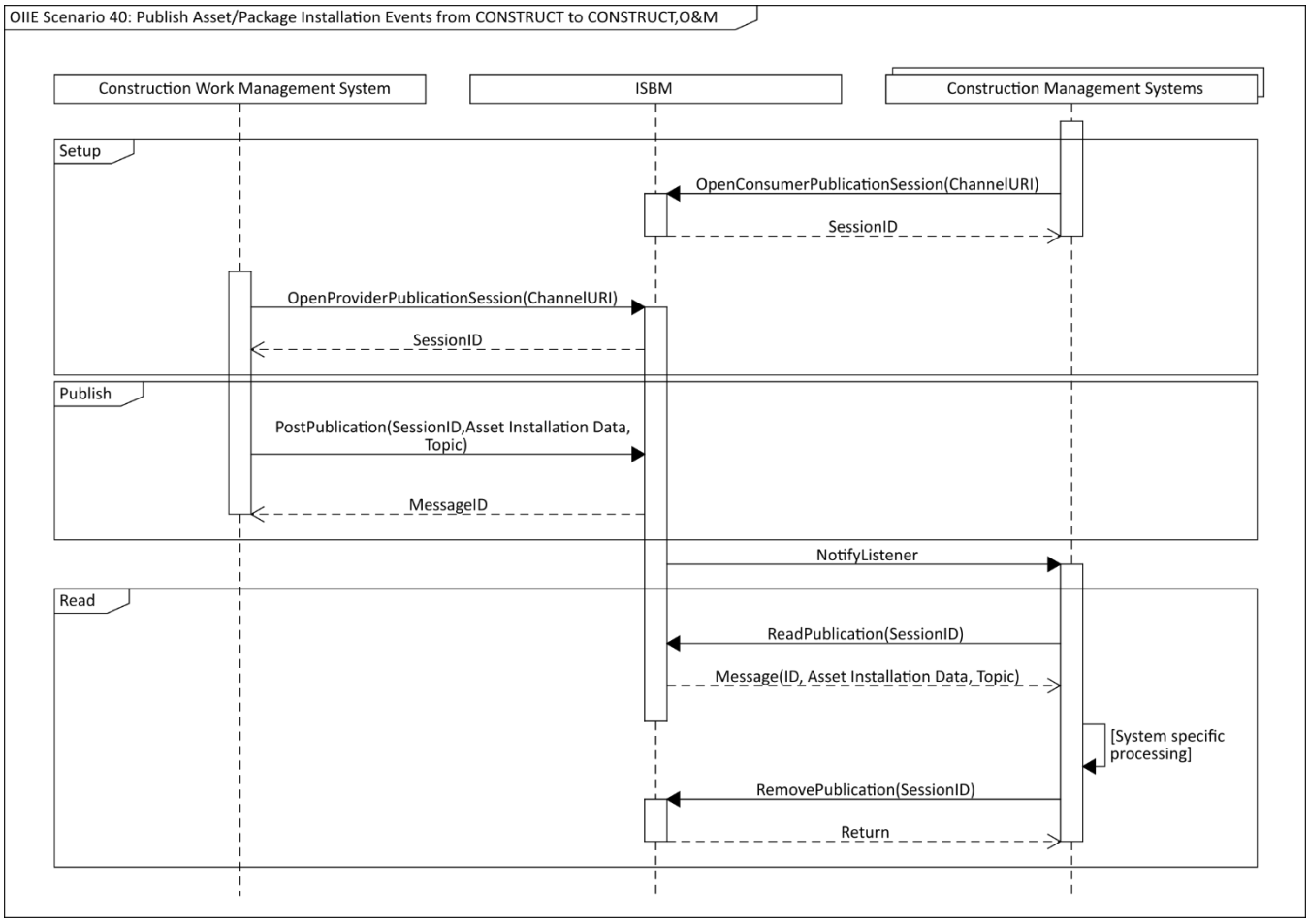
The scenario may require the use of an SDAIR in the following capacities:

- As a staging registry of asset configuration for information handover to the Operations & Maintenance Execution Environment

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.



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
1.0	2019-02-05	Initial write-up.

Version 1.0