

OIE Scenario 15 – Pull Maintenance Works Status/Work History from MMS to O&M

Before submitting a request for work advisory, the ORM system needs to ensure that similar active work is not already in process. Once the ORM system submits a request for work and receives back a Work Request or Work Order unique identifier, the ORM may periodically want an update on the status of the work. Finally, the ORM system also needs to retrieve the work history of a functional location segment or asset to perform comprehensive equipment health diagnostics/prognostics. A Pull modality is preferred where it is assumed, or required, that the ORM system(s) keep the Work History for a period to support further analysis.

Actors

Maintenance Management System	Responds to queries on work requests and/or work orders for functional locations, serialized assets, or models along with status changes for this work and completed work histories for these entities.
Operational Risk Management System	Issues queries on the work requests and/or work orders for functional locations, serialized assets, or models along with status changes for this work and completed work histories for these entities.

Data Content

The data sent from the MMS to the ORM consists of:

- The functional location, serialized asset, or make/model where work is to be performed
- The work request or work order with associated work steps
- Work status audit trail records
- Completed work records

MIMOSA CCOM Reference Types

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

- AgentType
- AssetType
- PropertyType/PropertyDefinition
- ModelType
- PriorityLevelType
- SegmentType
- SolutionPackageType
- UnitType
- WorkManagementType
- WorkStatusType

- WorkTaskType

NOTE For versions of MIMOSA CCOM prior to 4.1, the types referring to 'Property' use the term 'Attribute' instead.

System Interoperability Events

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

- [Pull Work Request Data](#)
- [Pull Work Order Data](#)
- [Pull Work Status Data](#)
- [Pull Completed Work Data](#)

Data Formats

The data requests made by the ORM and subsequent responses from the MMS must conform to MIMOSA CCOM BODs.

Infrastructural Components

ISBM

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

Implementation Requirements

The MMS must implement a client for the ISBM Provider Request and Channel Management (GetChannel operation only) Services. The MMS may implement the ISBM Notify Listener Service for request notification.

The ORM must implement a client for the ISBM Consumer Request and Channel Management (GetChannel operation only) Services. The ORM may implement the ISBM Notify Listener Service for response notification.

Suggested Channel/Topic Configuration

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

```
/Enterprise/Enterprise Subdivision/.../ISO18435:D2.3/Request
```

For example:

```
/Enterprise/Refinery A/Area A/Light Ends Area/ISO18435:D2.3/Request
```

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

```
OIIE:S15:V1.2/StandardSchemaName{:Version}
```

For example:

```
OIIE:S15:V1.2/CCOM-XML:GetWorkRequests:V1.0
OIIE:S15:V1.2/CCOM-XML:GetWorkOrders:V1.0
```

```
OIIE:S15:V1.2/CCOM-XML:GetWorkStatuses:V1.0
OIIE:S15:V1.2/CCOM-XML:GetCompletedWork:V1.0
```

CIR

The CIR is used to keep track of the object mappings between all systems.

Suggested Categories and Configuration

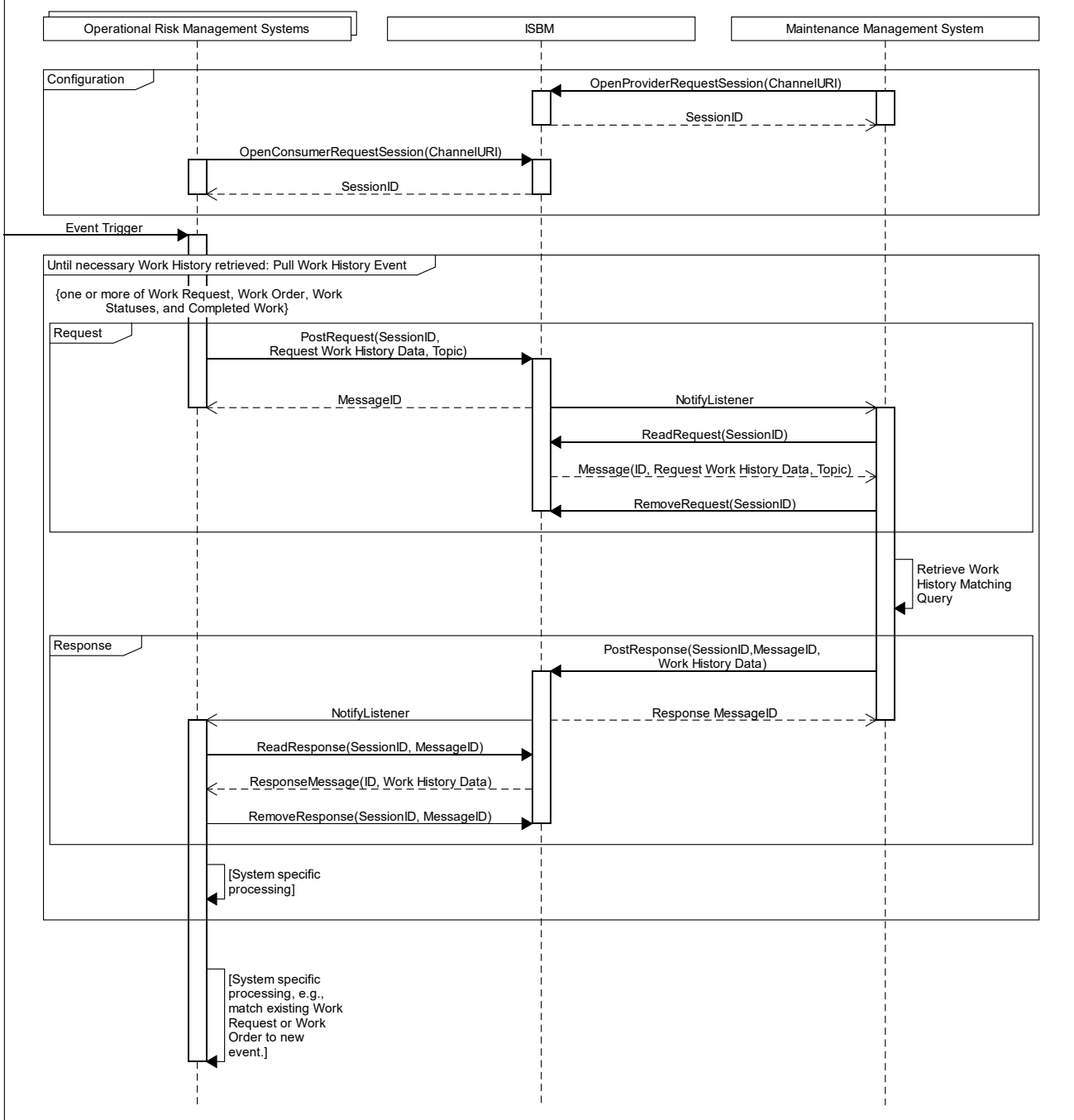
The following CIR categories are suggested:

Data Type	MIMOSA CCOM Categories
Functional locations	Segment
Serialized assets	Asset
Product make/model	Model
Agents	Agent
Solution Packages	Solution Package

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 and that CIR lookups are performed as needed to construct queries or responses using the unique, universal MIMOSA CCOM entity identifiers (i.e., their UUIDs).

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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	2020-11-10	Updated to use OpenO&M template
1.1	2019-02-06	Updated to new Use Case Architecture
1.0	2018-11-05	Imported from website-based documentation.