

OIIE Publish Measurement Data

This Event is published to provide the information about measurements with the receiving system(s).

Specific Data Content

The data sent from the source system is, at a minimum, composed of:

- The measurement(s)
- The timestamp when the measurement values was acquired
- The data quality

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

- The physical/virtual measurement location where measurement was taken
- The device/transducer that took the measurement
- The measurement source/data collector from which the measurement data was published

Data Processing

This Event is publishing operation and condition data and does not require any data processing by the receiving systems. The recipient system may either just record the information or further trigger an Event to perform some action.

Expected Response

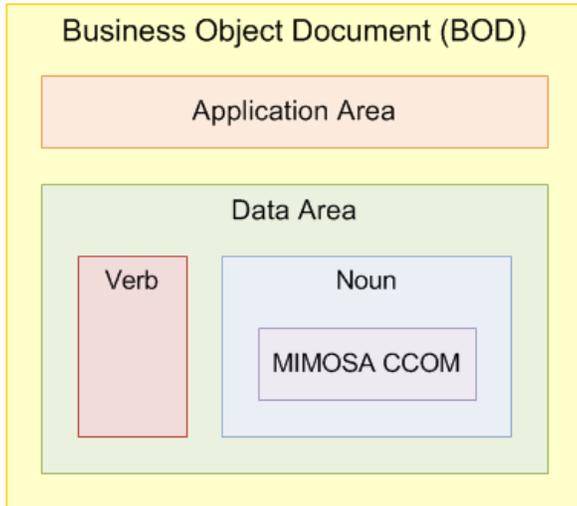
No response is expected.

Reference Implementation

The measurements' data can be published in many ways. The following is the list of current reference implementation(s) available:

1. Using SyncMeasurements CCOM BOD
2. Using SyncDataItems OIIE BOD for OPC UA content

NOTE Business Object Document (BOD) message structure is used to provide additional message concepts that encapsulate a MIMOSA CCOM payload. BODs indicate both behavior and structure for messages and the major components of a BOD are depicted below.



Example

An example of reference implementation of the publish measurement data Event using SyncMeasurements CCOM BOD is provided below.

```
<?xml version="1.0"?>
<SyncMeasurements languageCode="EN" releaseID="4.1.0"
  xmlns="http://www.mimosa.org/ccom4"
  xmlns:oa="http://www.openapplications.org/oagis/9"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <oa:ApplicationArea>
    <oa:Sender>
      <oa:LogicalID>20a137cf-a70d-2888-343a-bc1158bf7f9f</oa:LogicalID>
    </oa:Sender>
    <oa:CreationDateTime>2020-02-25T23:47:38Z</oa:CreationDateTime>
    <oa:BODID>b7555157-5552-4841-b285-7a170fd48679</oa:BODID>
  </oa:ApplicationArea>
  <DataArea>
    <oa:Sync />
    <Measurements>
      <MeasurementLocation>
        <UUID>e015177c-8281-576b-56a9-87c16c3d91cc</UUID>
        <InfoSource>
          <UUID>20a137cf-a70d-2888-343a-bc1158bf7f9f</UUID>
        </InfoSource>
        <ShortName>Temperature Transmitter TT-121-Loc1</ShortName>
      </MeasurementLocation>
      <SingleDataMeasurement xsi:type="Measurement">
        <UUID>711ee2af-12d5-5cec-578c-160c9aeb5118</UUID>
        <InfoSource>
          <UUID>20a137cf-a70d-2888-343a-bc1158bf7f9f</UUID>
        </InfoSource>
        <Recorded>2019-07-25T23:47:38Z</Recorded>
        <Data>
          <Measure>
            <Value>55.36</Value>
          </Measure>
        </Data>
      </SingleDataMeasurement>
    </Measurements>
  </DataArea>
</SyncMeasurements>
```

```

    <UnitOfMeasure>
      <UUID>3912c639-8c27-4b29-868b-a0f01790770f</UUID>
      <InfoSource>
        <UUID>cf3f3a8a-1e42-4f15-9288-9cf2241e163d</UUID>
      </InfoSource>
      <ShortName>Degrees Celsius</ShortName>
    </UnitOfMeasure>
  </Measure>
</Data>
</SingleDataMeasurement>
</Measurements>
</DataArea>
</SyncMeasurements>

```

Version Applicability/Alignment

Events describe individual message exchanges between systems detailing data and processing 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 specific data elements required by newer Events, while older Events may become obsolete or have their data requirements change over time.

This Event 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	2021-01-07	Created as per OIIE use case architecture and updated OpenO&M template