MIMOSA

Open Standards for
Physical Asset Management

OIIE Use Case Architecture Overview

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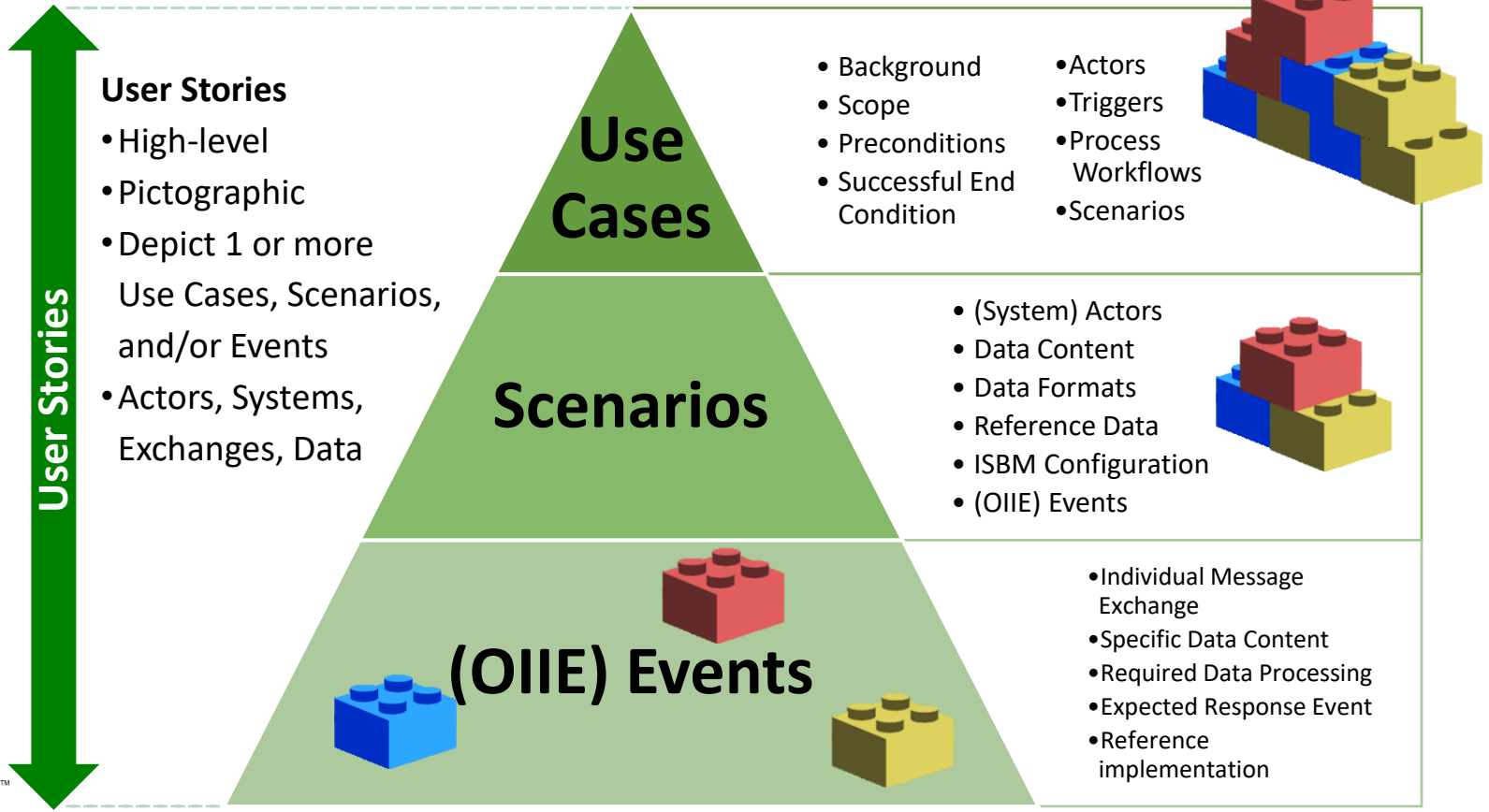
OIIE Standardized Use Case Architecture

Standardized Methodology to Define and Re-use OIIE Components



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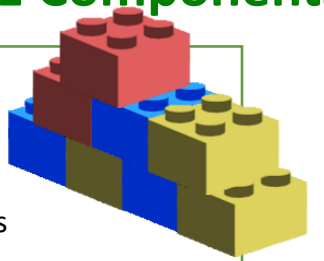
Standardized Methodology to Define and Re-use OIIE Components

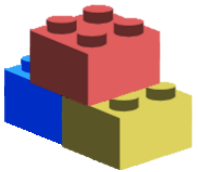
User Stories

User Stories
- High-level
- Pictographic
- Depict 1 or more Use Cases, Scenarios, and/or Events
- Actors, Systems, Exchanges, Data

Use Cases
- Background
- Scope
- Preconditions
- Successful End Condition
- Actors
- Triggers
- Process Workflows
- Scenarios



Scenarios
- (System) Actors
- Data Content
- Data Formats
- Reference Data
- ISBM Configuration
- (OIIE) Events



(OIIE) Events
- Individual Message Exchange
- Specific Data Content
- Required Data Processing
- Expected Response Event
- Reference implementation

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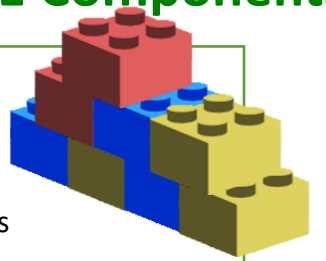

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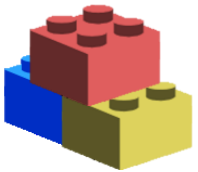

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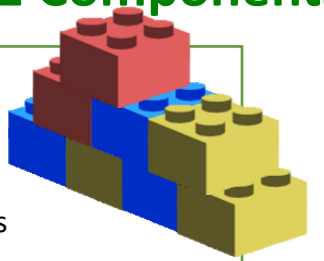

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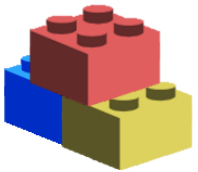

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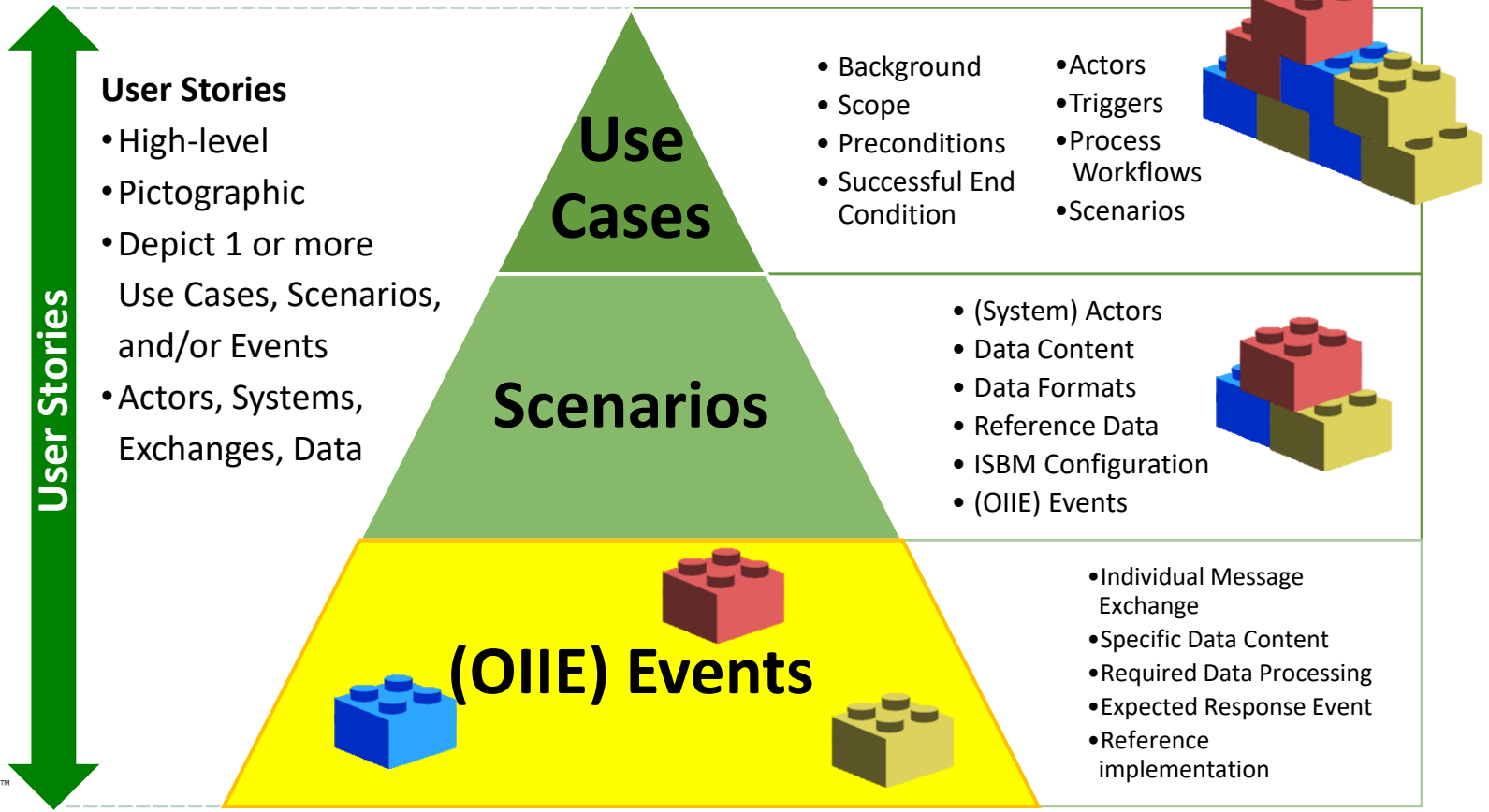
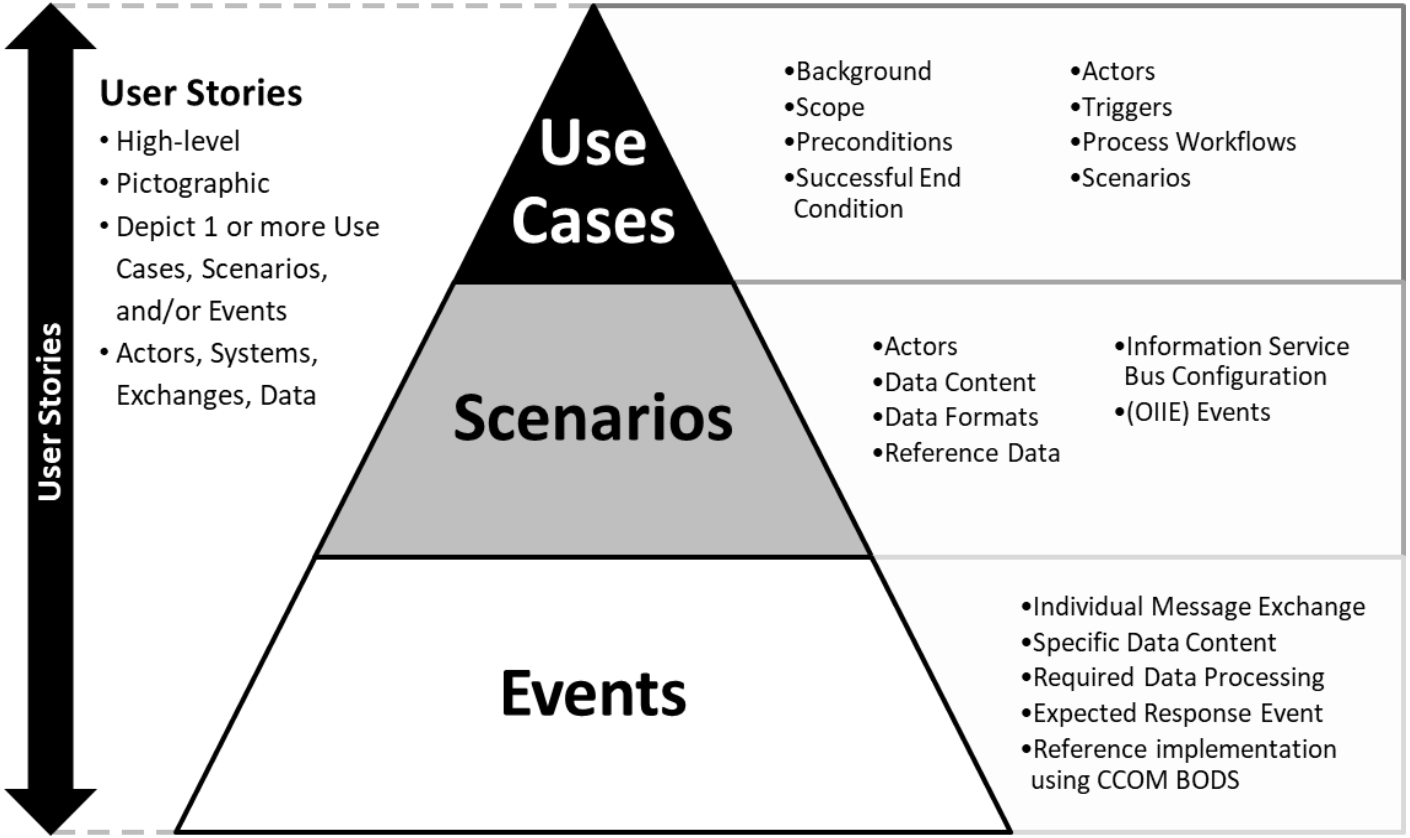


ISO/TS 18101-1:2019



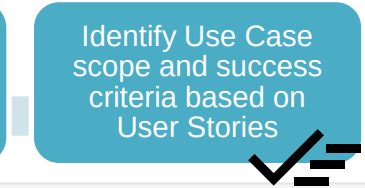
OIIE Use Case Development Process

Identify challenges and opportunities

- Brainstorm or known industry issue
- Industry, Technology trends
- Maturity Models

Capture preliminary requirements

- What are the business functions to be executed?
- Who, what, when, where, why?
- Elicit through **User Stories**
- Methodologies
- Use Case Library
- Business Value Opportunity



Identify Use Case scope and success criteria based on User Stories

- Draft Background context.
- Scope, success criteria, triggers, and preconditions of the Use Case
- Allocate business functions, interactions to Use Cases within bounded scope
- Use Cases and Workflows
- Business Value Impact Assessment

Detail the main success scenario of the Use Case(s)

- Capture user story summary in formal Main Success Scenario (BPMN)
- Write up textual narrative
- Identify major alternative flows

Identify the OIIE Scenarios and Events to fulfil the workflow

- Performed by technical team in parallel
- IT and domain experts
- Begin detailing technical requirements
- Standards, data, messages, protocols, mappings

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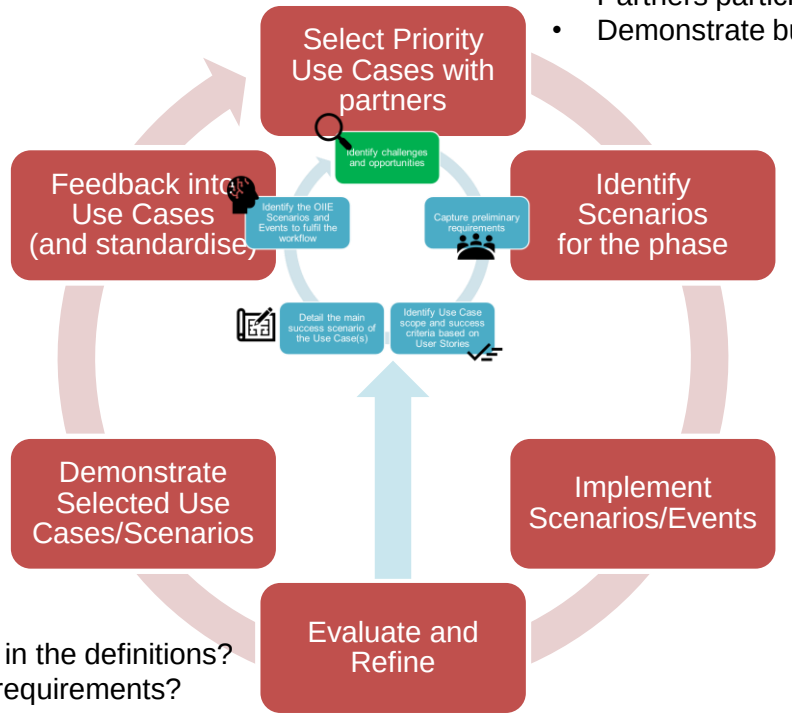
OIIE Use Case Piloting Process

- Partners participate in pilot
- Demonstrate business and industry value

- Gap Analysis
- Identify Future Priorities
- ISO 18101



- Choose specific scenarios for implementation and demonstration given:
- Time, scope, resource constraints

- Participants execute Use Cases
- Live @ Conferences and/or Published Recording
- Build awareness of capability

May include any or all of:

- Data set creation
- Data mappings
- Message mappings
- Adapter Implementation
- Message Flows and triggering
- Partner/Business Specific Processing
- Infrastructure Configuration, a.k.a. Ecosystem Administration

- Are there issues in the definitions?
- Is it fulfilling the requirements?

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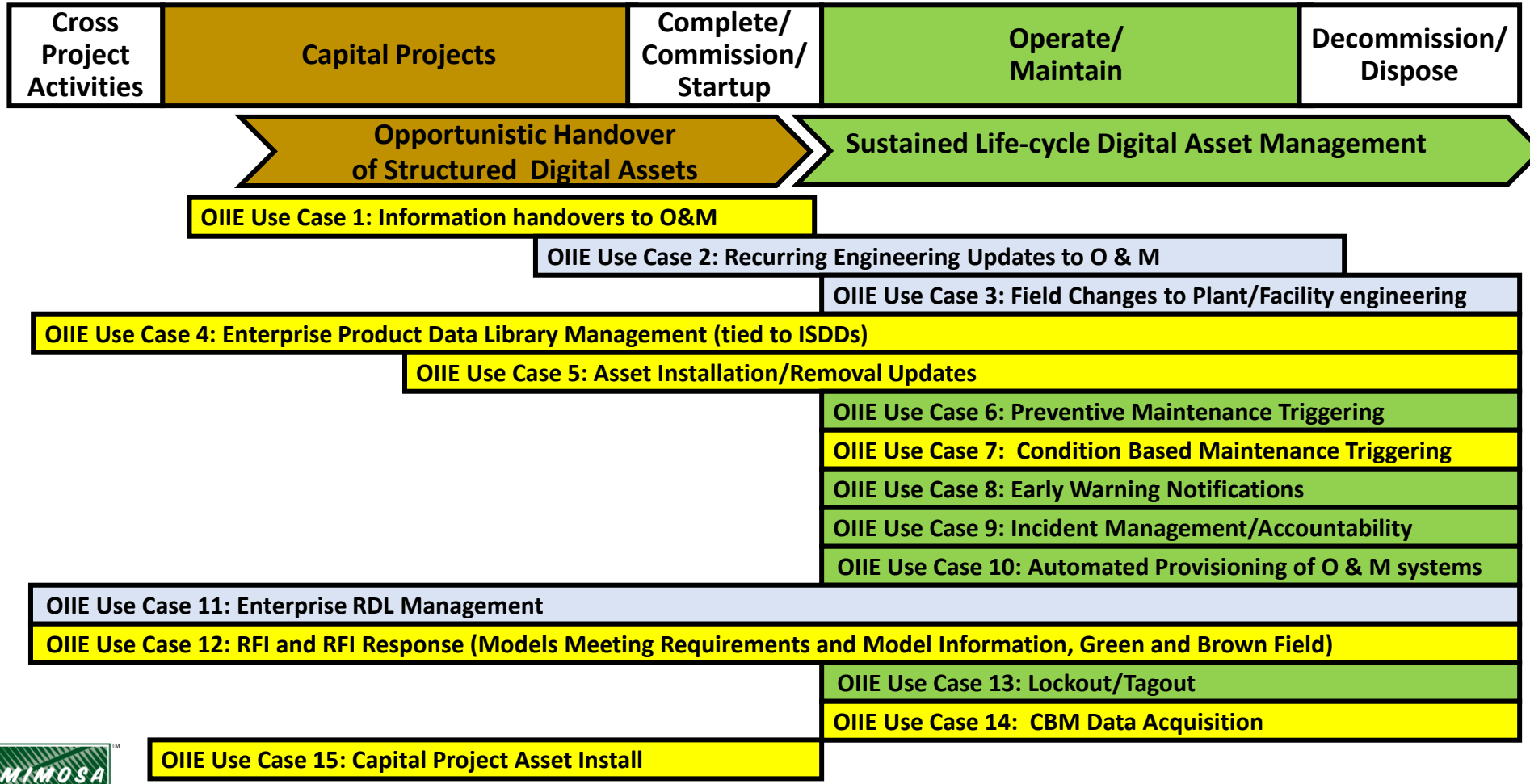
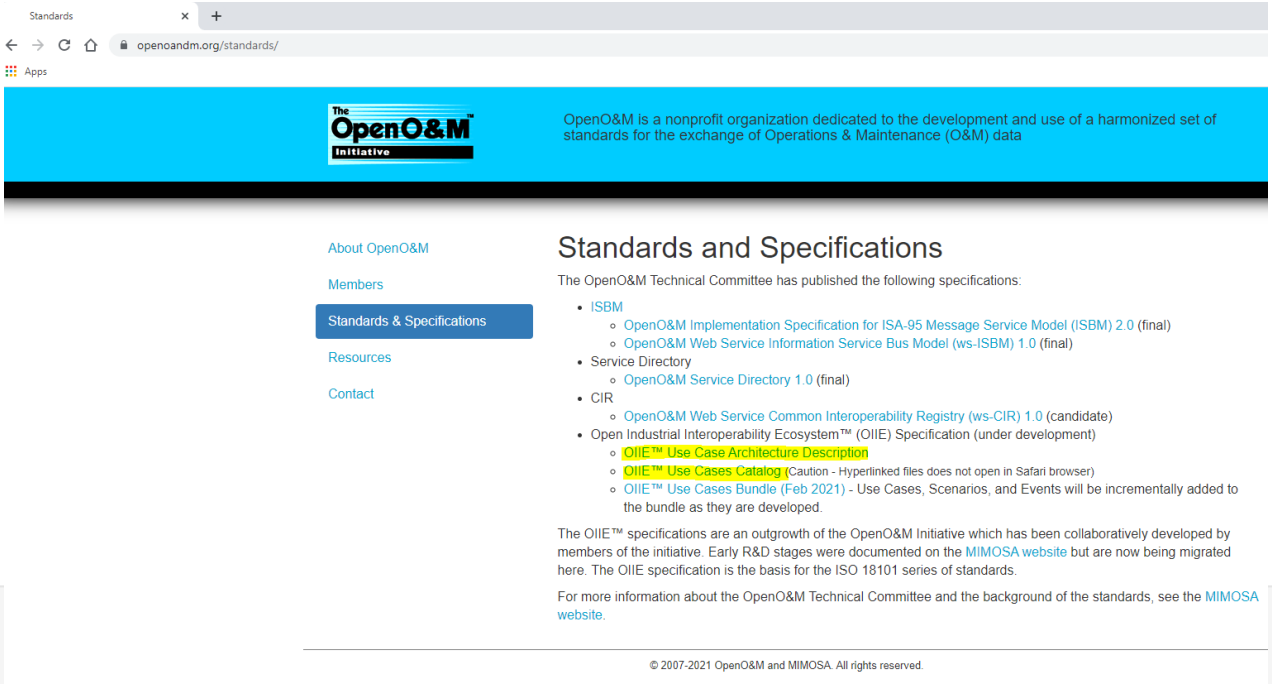
OIIE Use Cases



Resources

- Visit openoandm.org/standards/ and mimosa.org/open-industrial-interoperability-ecosystem-oiie/oiie-use-cases/