



AMF Overview

17 Nov 2017



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Introduction



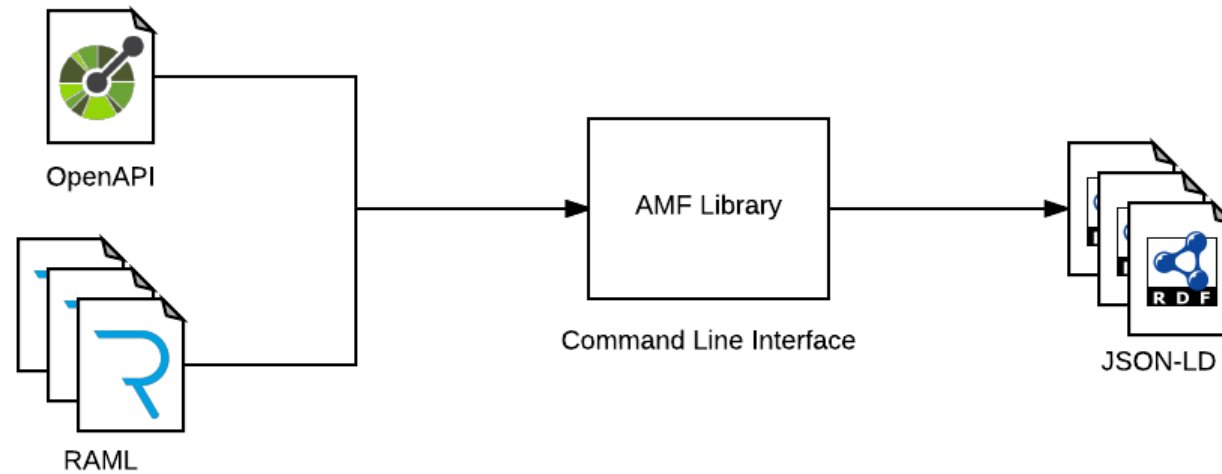
- Library to work with “modular information models”
 - Parsing
 - Generation
 - Resolution
 - Translation
 - Validation
 - Definition

- AMF 1.0 supports
 - JSON(-LD)/YAML (syntaxes)
 - RAML 1.0 / RAML Types
 - OpenAPI 2.0 / JSON Schema
 - RAML Vocabularies
 - RAML Dialects
- AMF 1.0 platforms:
 - Java
 - Node
 - Browser

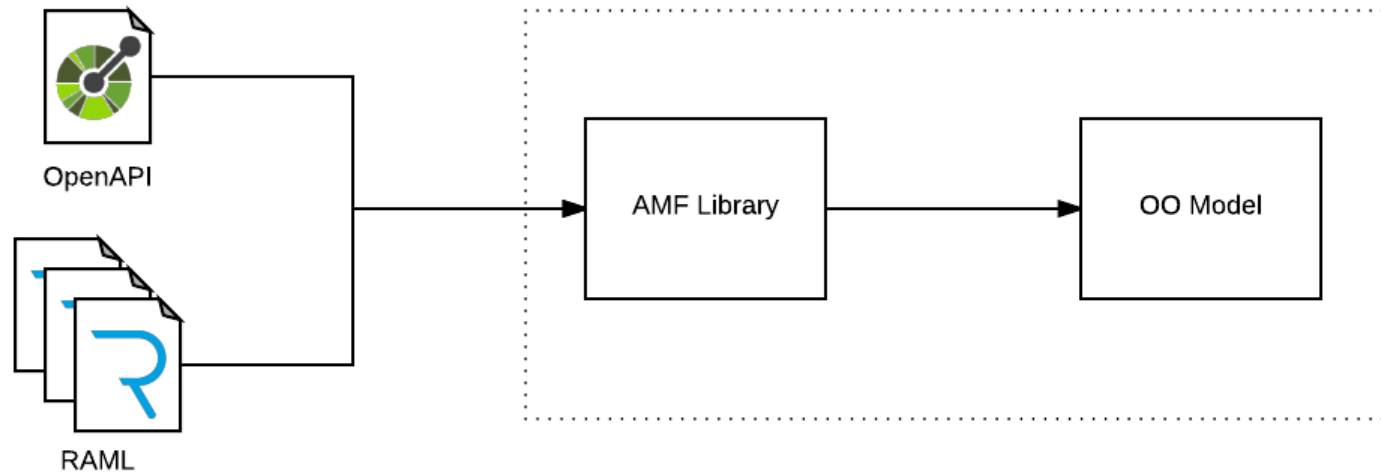
Use cases



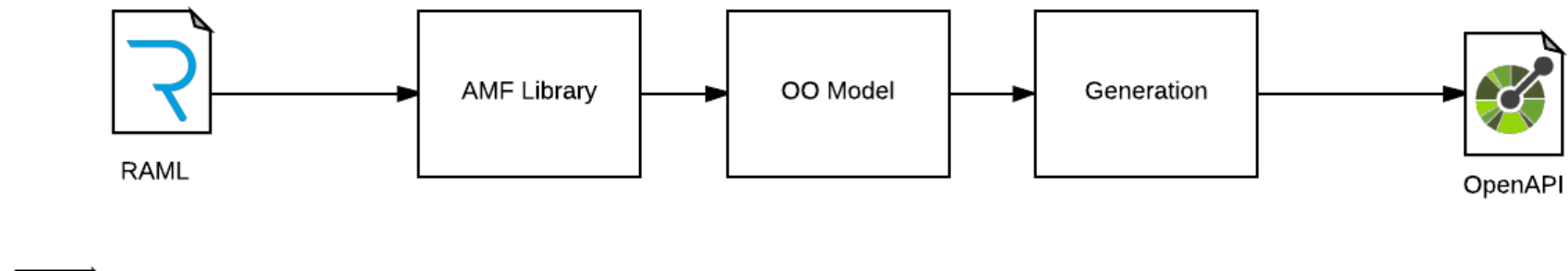
- Parsing (command line)



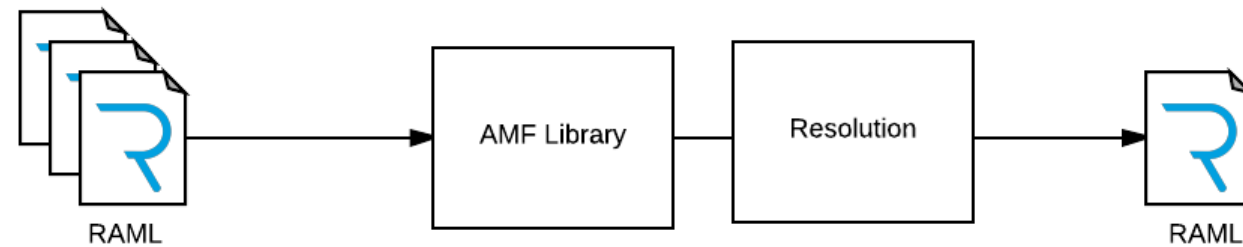
- Parsing (library)



- Generation (translation)

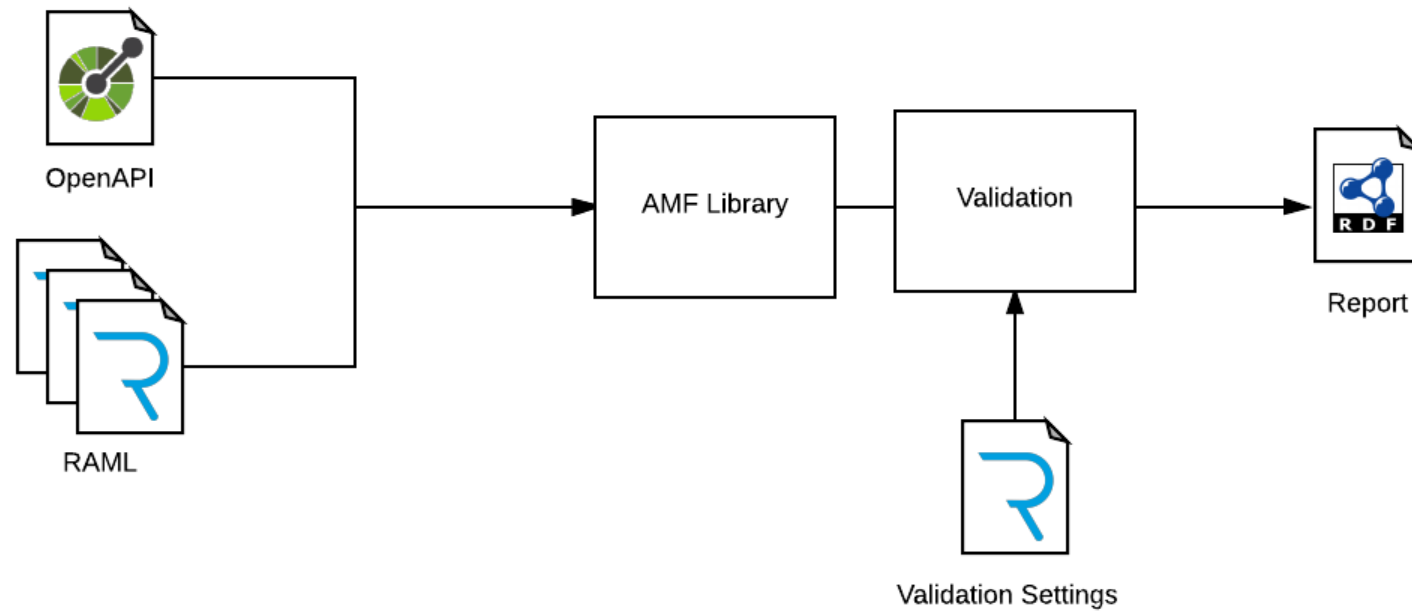


- Resolution



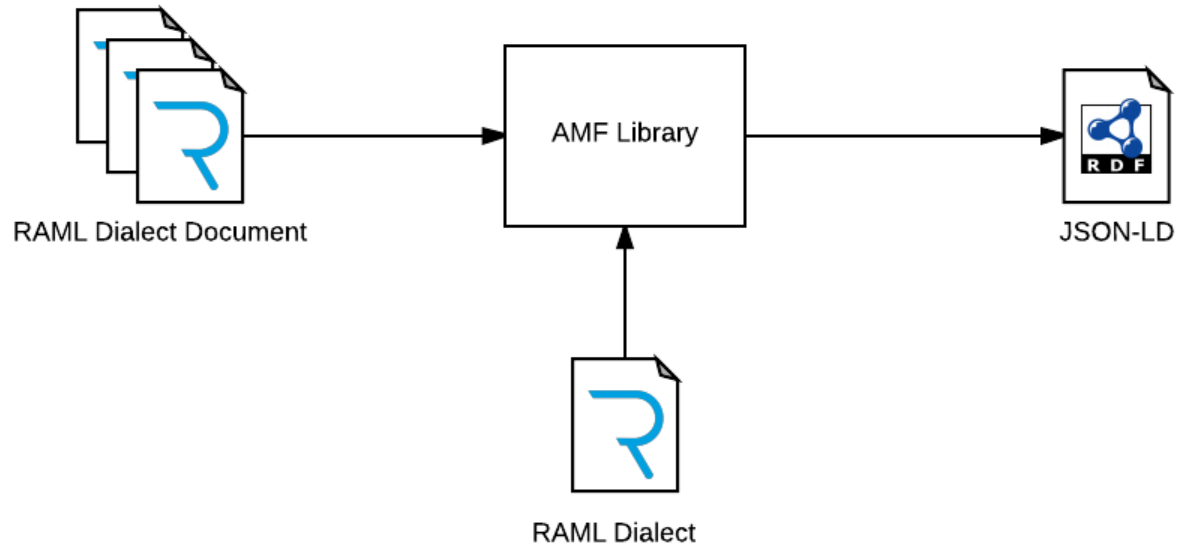
- Resolution
 - Inline fragments
 - Resolve library references
 - Apply traits and resource types
 - Compute type inheritance
 - Expand unions
 - Apply extensions / overlays
 - Flatten endpoints (Optional)
 - Normalise parameters per operation and profile (RAML/OpenAPI/AMF)

- Validation



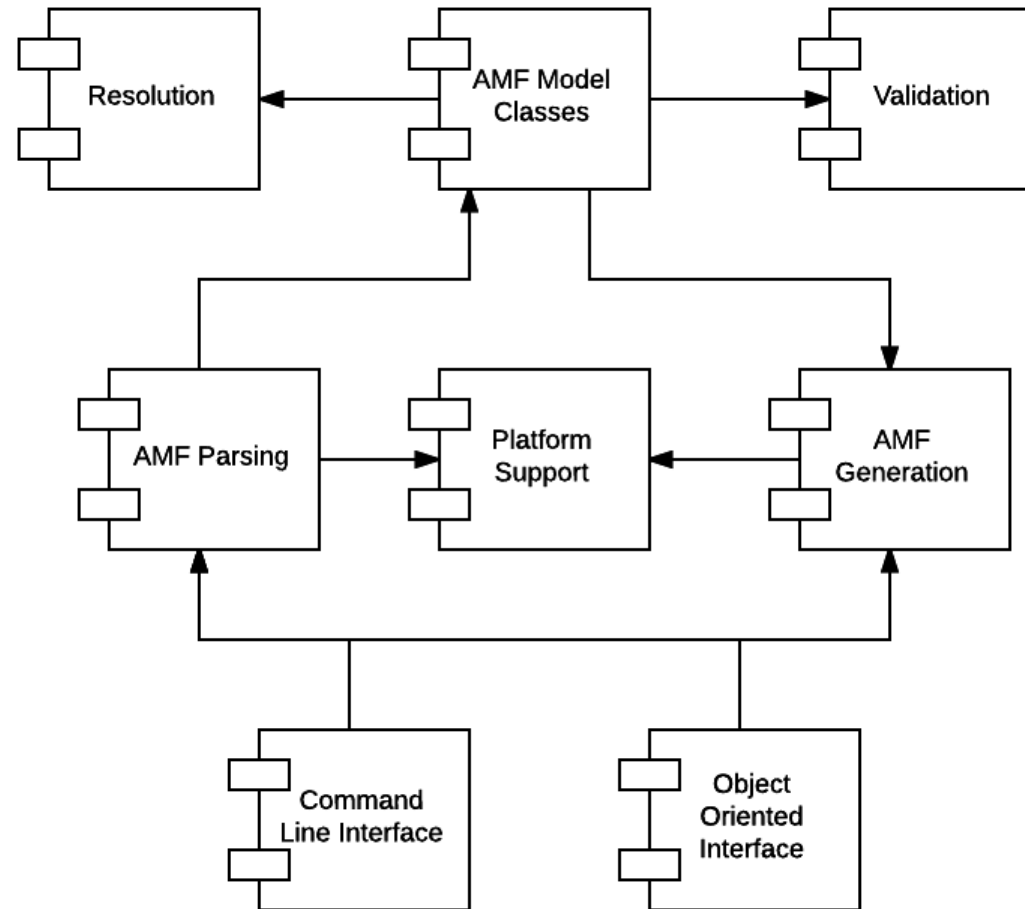
- Validation
 - Explicit list of formal (SHACL) validations (150)
 - AMF / RAML / OAS standard profiles
 - Custom profiles
 - Turn on/off individual validations
 - Change severity level of individual validations
 - Add new validations declaratively using AMF Validation dialect
 - Add new validations using JS (JVM (nashorn) / JS libraries)
 - Validations can be parsed as a RDF graph and linked from the API spec itself (Exchange)

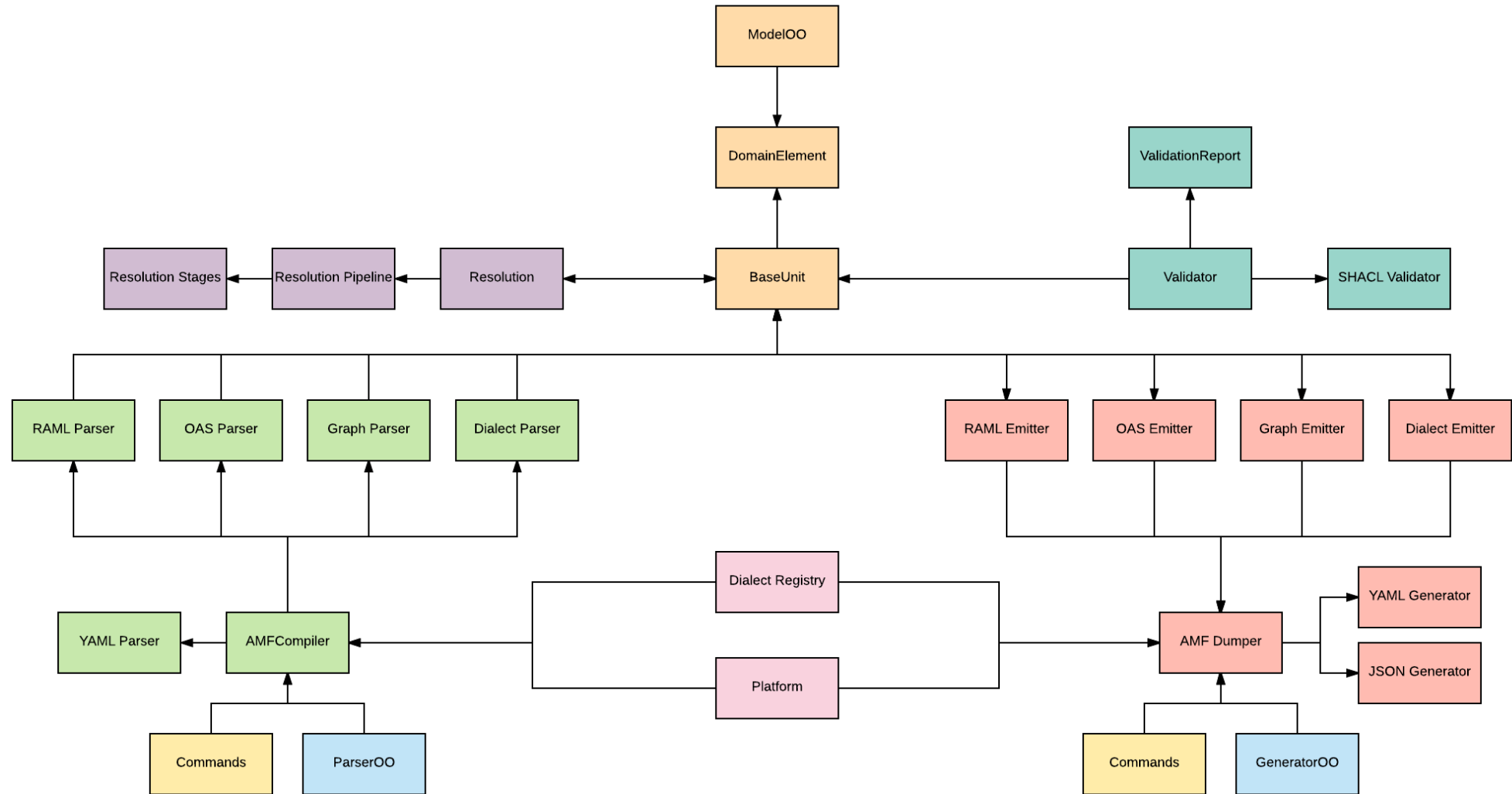
- Extensions (vocabularies and dialects)

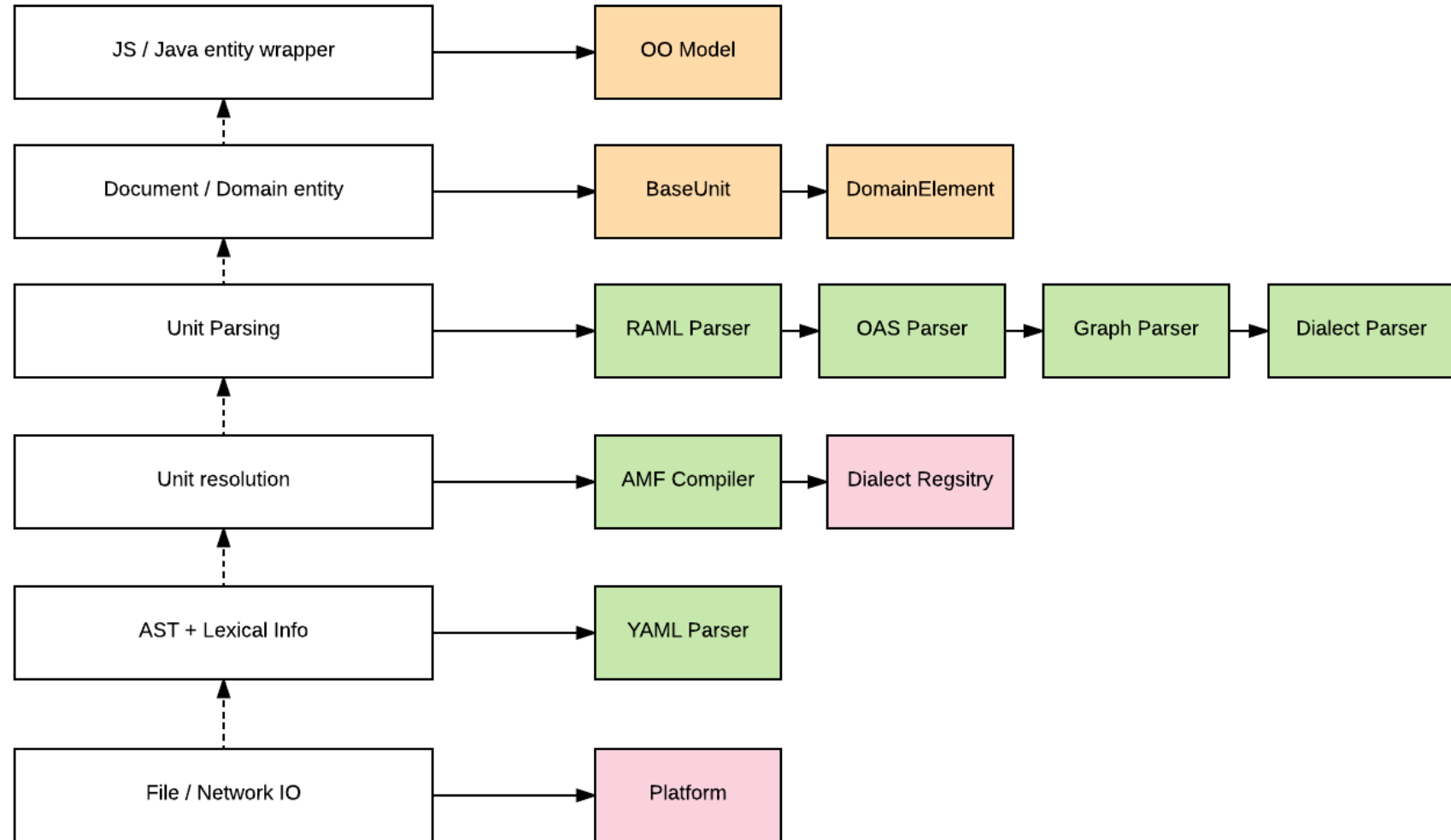


Architecture



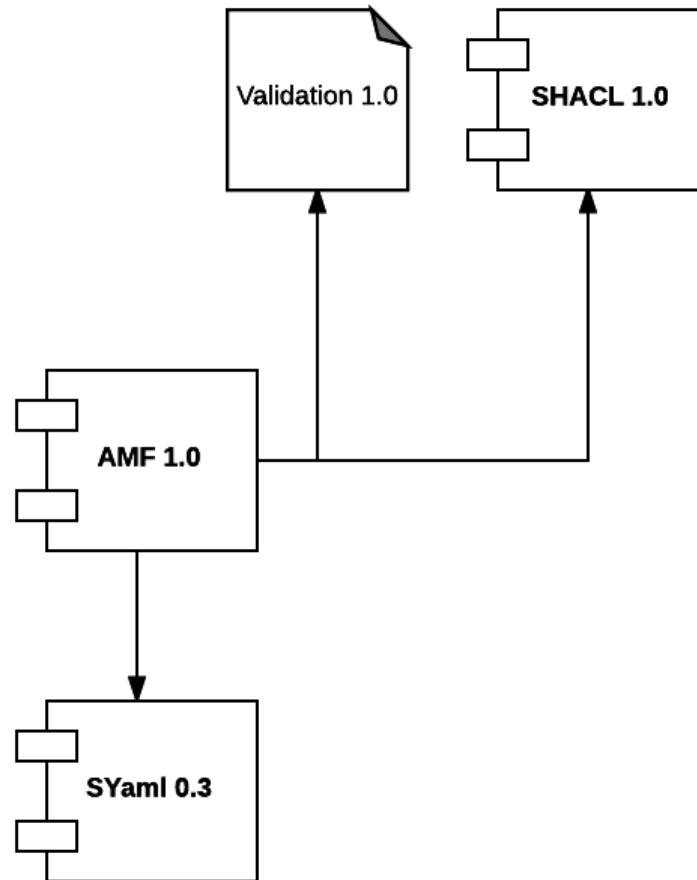




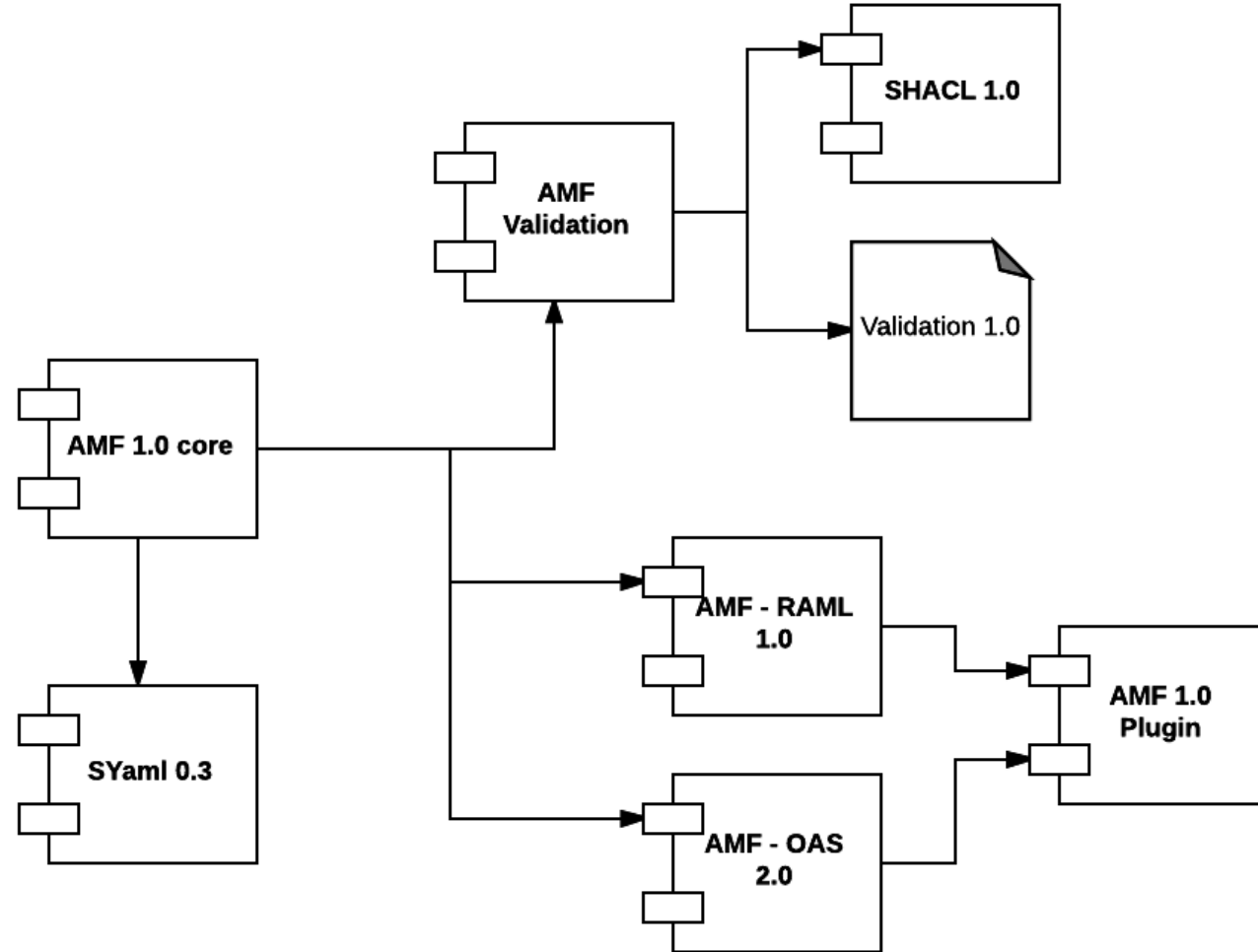


Distribution





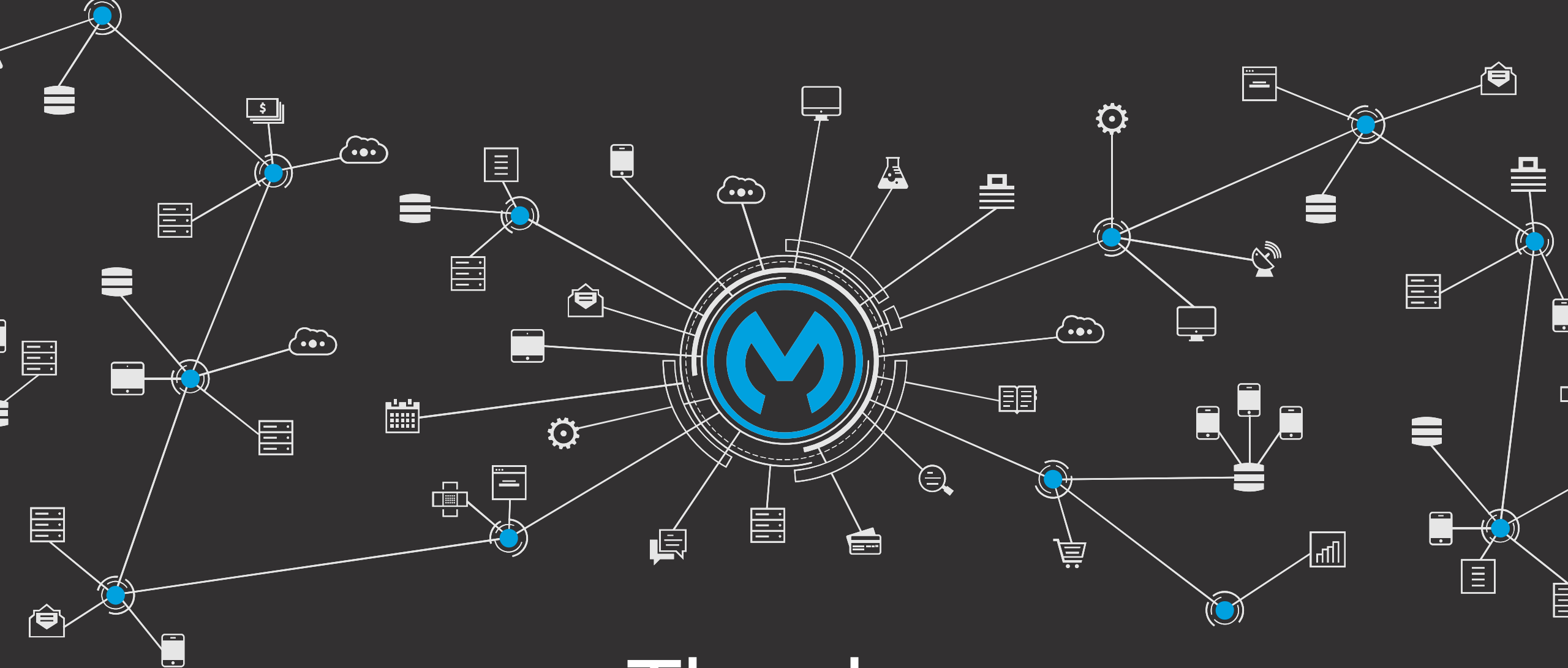
- Maven artifact (JVM)
- NPM package (Node)
- Stand-alone JS file (Browser)



Standards



- Graph data model: RDF (can be queried using SPARQL)
- Open world semantics: OWL (SPARQL can used OWL inference)
 - Vocabularies
- Closed world semantics: SHACL
 - Dialects, validation
- Serialisation format: JSON-LD



Thanks