grams, or transfer data among various hardware or software entities in a manner that requires the user to have little or no knowledge of the unique characteristics of those entities.

OMS interoperability relation among OMS (via OMS alignments) which are logically interoperable.

4.8 Abstract and Concrete Syntax

concrete syntax
serialization specific syntactic encoding of a given OMS language or of DOL.
NOTE Serializations serve as standard formats for exchanging DOL documents and OMS between human beings and tools.
EXAMPLE OWL uses the term "serialization"; the following are standard OWL serializations: OWL functional-style syntax, OWL/XML, OWL Manchester syntax, plus any standard serialization of RDF (e.g. RDF/XML, Turtle, ...). However, W3C specifications only require an RDF/XML implementation for OWL2 tools.
EXAMPLE Common Logic uses the term "dialect"; the following are standard Common Logic dialects: Common Logic Interchange Format (CLIF), Conceptual Graph Interchange Format (CGIF), eXtended Common Logic Markup Language (XCL).

document result of serializing an OMS or DOL library using a given serialization.

standoff markup way of providing annotations to subjects in external resources, without embedding them into the original resource (here: OMS).

abstract syntax
parse tree term language for representing documents in a machine-processable way
NOTE An abstract syntax can be specified as a MOF metamodel **NR25**. Then abstract abstract syntax documents can be represented as XMI **NR27** documents.

4.9 Semantics

formalization precise mathematical entity capturing an informal or semi-formal entity.

formal semantics assignment of a mathematical meaning to a language by mapping the abstract syntax to suitable semantic domains.
NOTE A formal semantics is a formalization of the meaning of a language.

semantic domain mathematically-defined set of values that can represent the intended meanings of language constructs.

semantic rule specification of a mapping from expressions for some meta class in the abstract syntax to a semantic domain.

global environment mapping from identifiers (IRIs) to values in semantics domains representing representing ~~the global knowledge about OMS~~ semantic information about a set of documents (the latter typically being distributed over the internet).

4.10 Semantic Web

resource something that can be globally identified.
NOTE **NR10**, Section 1.1 deliberately defines a resource as "in a general sense [...] whatever might be identified by [an IRI]". The original source refers to URIs, but DOL uses the compatible IRI standard **NR11** for identification.
EXAMPLE Familiar examples include an electronic document, an image, a source of information with a consistent purpose (e.g., "today's weather report for Los Angeles"), a service (e.g., an HTTP-to-SMS gateway), and a collection of other resources. A resource is not necessarily accessible via the Internet; e.g., human beings, corporations, and bound books in a library can also be resources. Likewise, abstract concepts can be resources, such as the operators and operands of a