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Publishing Lead:

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Contributing or Reviewing Work Groups:

Orders and Observations

FHIR Development Project Insight ID:

PSS id: 1010

Scope of coverage:

Order Service Catalogs vary in the type of items they contain. For instance, a product catalog such as a medication catalog may list products that are available for selection within a single organization or across a number of organizations; an orderable catalog typically holds a collection of orderable items available to an organization or facility, the definition of orderables used to render and constrain order entry forms, and libraries of order set or plan of care definitions for any number of patient populations. Other examples include Electronic Directory of Service (eDOS) compliant catalogs that enumerate the orderable tests for laboratories.

Service catalogs may offer a set of services that can be ordered such as laboratory services and may also contain entries in the catalog for items that are not necessarily orderable but rather which serve a supporting role when ordering a specific service.

Catalogs of knowledge artifacts, another type of order service catalog, enable organizations to ensure that high quality standards are maintained over time. Order sets and plans of care evolve as best practices and evidence change, but without standardized Catalog APIs, it is often not easy or even possible to exchange catalog resources between organizations. For instance, an organization may decide to contract with a CDS Knowledge Provider to obtain evidence-based order sets to help them standardize care. The organization may wish to customize these order sets (e.g., modifying the names of orderable items to reflect the local vocabulary used at a given facility or changing the data models of categories of orderables such as medication orderables), and, with great effort, import these customized order sets into their EMR. Given the lack of standard interfaces to support the import of such order sets, updating local content as evidence-based practices evolve is unnecessarily convoluted and expensive.

An Order Catalog is composed of a homogeneous collection of items such as medication products, medical devices, laboratory tests, or knowledge artifacts such as order sets. These items provide the definitions of orderable or selectable artifacts, and provide support to the ordering process. The Order Catalog itself is represented by a set of metadata such as title, category, custodian, status ... that characterize the overall collection.

Content location:

https://github.com/HL7/fhir-order-catalog  Github repository for the IG
http://build.fhir.org/ig/HL7/fhir-order-catalog/branches/master/index.html  Landing page for the IG

Proposed IG realm and code:
Maintenance Plan:

Short Description:
An Order Catalog is an administered homogeneous collection of items such as medication products, laboratory tests, procedures, medical devices or knowledge artifacts such as order sets, which support the ordering process, or more generally the healthcare process.

Long Description:
An Order Catalog is an administered homogeneous collection of items such as medication products, laboratory tests, procedures, medical devices or knowledge artifacts such as order sets, which support the ordering process, or more generally the healthcare process.

An order catalog as a whole is represented in FHIR by an instance of the Composition resource.

Two kinds of layout are available:

1. Catalogs holding collections of manageable size reference their content as Composition.section.entry elements, each one referencing an item represented by a definitional resource.
2. Bigger order catalogs (e.g. the catalog of all medical devices authorized for the EU market) use only the header of the Composition resource and are referenced by the definitional resources representing their items.

Therefore two profiles of the Composition resource are defined:

1. Catalog, which includes the content, referencing each item of the catalog.
2. CatalogHeader, which holds only the set of global metadata and is intended to be referenced by the items of the catalog.

An item of a catalog is represented by a definitional resource, and is often further described by a set of supporting definitional resources.

See the IG itself for a big picture of these design choices: https://build.fhir.org/ig/HL7/fhir-order-catalog/index.html#technical-overview

Involved parties:

PHAST (based in France)
Medlinx/Helix (based in Russia)
Quest Diagnostics (based in US)

Expected implementations:

PHAST: Catalogs of laboratory services, catalogs of medications, catalogs of medical devices, catalogs of knowledge artifacts
Medlinx/Helix: Catalogs of laboratory services
Quest Diagnostics: Catalogs of laboratory services

Content sources:

Example Scenarios:

Use Case 1
An organization wishes to share its full catalog of healthcare products or services with the healthcare professionals and organizations of its market. It publishes its catalog as a set of resources accessible online for discovery and retrieval. Consumers query the catalog online and retrieve the items they need, incorporating them just in time into their local healthcare processes.

Variant 1
A consumer imports periodically the subset of the catalog it is interested in, so as to have it available locally for its healthcare process.

**Use Case 2**

A content vendor wishes to import a client’s orderable item vocabulary to support the mapping of vendor terms with those of its client in its authoring system.

**Variant 1**

A content vendor wishes to import a collection of order sets from one of its client including all dependencies (e.g., orderable items mentioned in the order sets, order details, relevant order item constraints, etc…) into its own catalog.

**Variant 2**

A content vendor wishes to import a client’s order item details into its system in order to map the vendor’s order item details to that of its client. For instance, a vendor may wish to map its medication order details to those specified in the Medication Order Entry Form of a particular IT solution vendor.

**Use Case 3**

A client of a content vendor’s system wishes to import the latest set of published order sets into its own catalog for deployment into its EHR.

**Use Case 4**

A health care provider wishes to sync its orderable item catalog and order set library with a content vendor. Any term added, updated, or inactivated should reflect immediately on the content vendor side. Also, the health care provider wishes to identify any catalog item that references an inactivated orderable item on the content vendor system in order to update the order set.

**Use Case 5**

A medication has been recalled. A content provider and a health care provider would like to identify all order sets that reference this recalled medication. The health care provider then wishes to sync its order set library with that of the content vendor’s and update all affected order sets based on vendor guidance prior to reimporting the updated order sets back into their own catalog. The updated order sets, are then deployed into the EHR.

**Use Case 6**

A health care organization with multiple facilities and hospital maintains a master catalog. Each facility maintains its library of order sets and vocabulary derived from the master catalog but localized based on the facility’s needs and capabilities. Updates to the master catalog should be reflected at the individual facility/hospital level based on the governance practices of the facility and the parent organization.

**Use Case 7**

The client of a content vendor would like to import order sets ready for publication into their system. They search the catalog for all active order sets that are ready for publication and import that set into their local catalog. Once imported, an integrator reviews the order sets, makes the necessary changes, and deploys them to the EHR.

IG Relationships:

**Timelines:**

**FMG Notes**