



Sharing Value Sets (SVS Profile)

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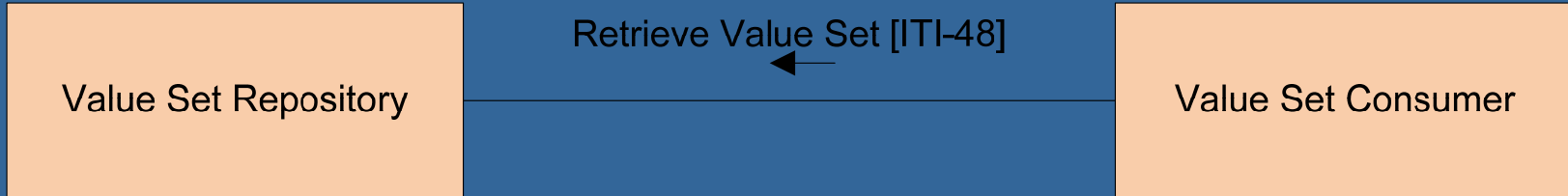
GIP-DMP



Overall presentation of the profile

- The Sharing Value Sets (SVS) profile provides a way through which healthcare systems producing clinical or administrative data can retrieve a common, uniform, centrally managed nomenclature.
- A **Value Set Consumer** retrieves data from a **Value Set Repository**. The retrieved **Resolved Value Set** can be used for various purposes.
- A single **Value Set Repository** can be accessed by many **Value Set Consumers** establishing a domain of consistent and uniform set of nomenclatures.
- The Value Set can be retrieved via a **SOAP** protocol or **HTTP GET**

Actor Diagram/Transactions/Options



SVS Integration Profile - Actors and Transactions

Actors	Transactions	Optionality	Section in Vol. 2
ValueSet Repository	Retrieve Value Set	R	3.48
ValueSet Consumer	Retrieve Value Set	R	3.48

Sharing Value Sets - Actors and Options

Actor	Options	Vol & Section
Value Set Repository	No options	
Value Set Consumer	HTTP binding	ITI TF-2:3.48.5
	SOAP binding	

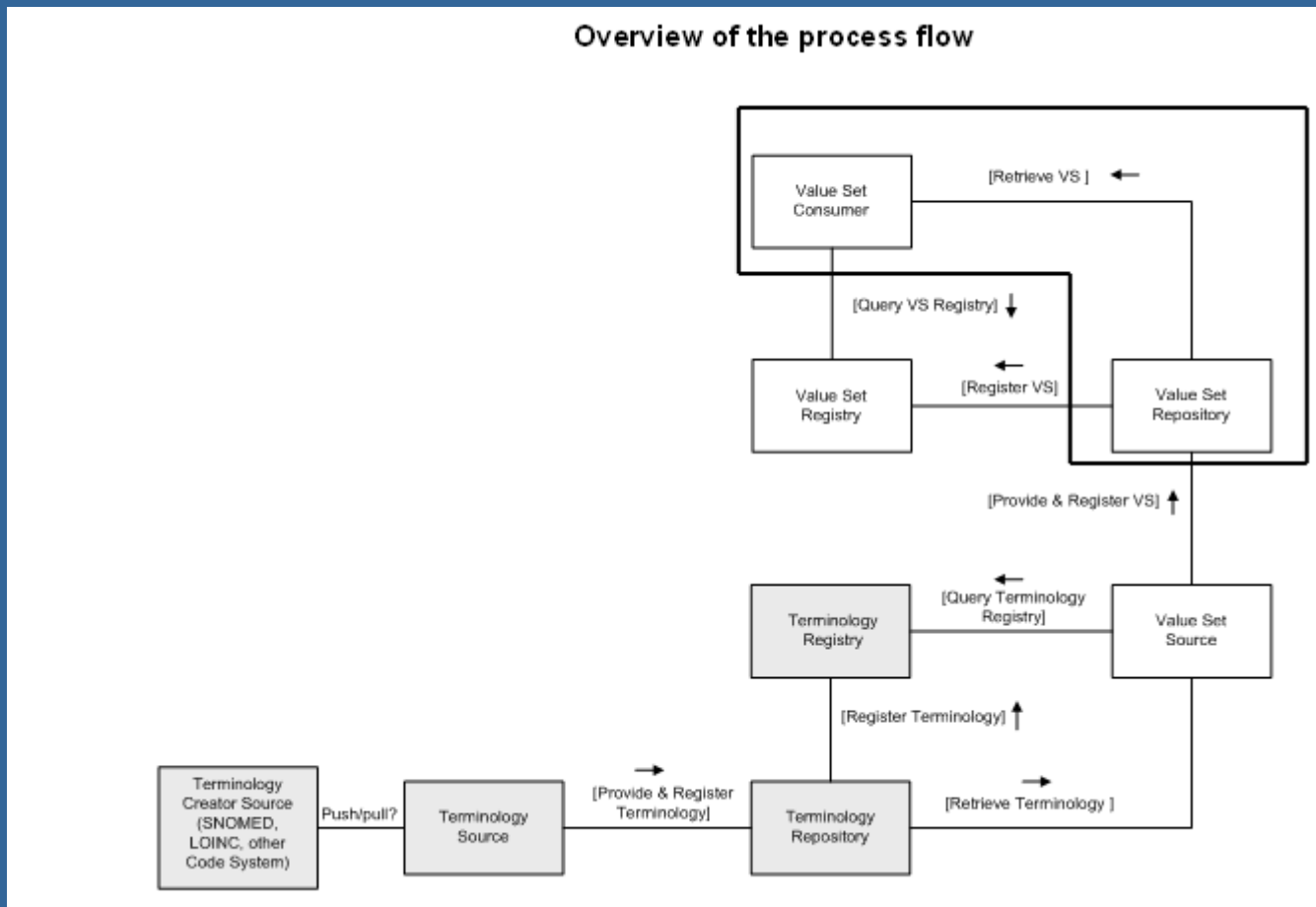
Value Set

- A uniquely identifiable set of valid concept representations, for example the ISO codes and the description names for all provinces of Canada.
- **Resolved Value Set**
 - a set of concept representations that were in effect **at a specific time for a particular version** of a Value Set (a particular instance of it).
 - similar to the programming concepts of **Class** and **Instance of Class**.
- In the SVS profile, the Resolved Value Set is a **flat list** of codes for this year.

Resolved Value Set

- A **Resolved Value Set** can be defined by:
 - Value Set Unique ID (using an ISO OID)
 - a combination of a Value Set Unique ID and its particular version

Overview of the process flow



Use Case Number One

Distributing a consistent nomenclature in an XDS Affinity Domain

- A common nomenclature is required in an XDS Affinity Domain for metadata elements
 - classCode, confidentialityCode, eventCodeList, healthcareFacilityTypeCode, practiceSettingCode, typeCode...
 - So far these are entered manually, taking up time and leading to potential errors.
 - In a desired state, each vendor's application would retrieve the necessary Value Sets used in a XDS Affinity Domain from a Value Set Repository, eliminating manual entry and improving accuracy

Use Case Number Two

Updating terminology codes for a medical and billing across systems

- A patient is being referred by her Primary Care Physician to a specialized healthcare facility
- She is being seen by oncologists, laboratory practitioners, pharmacists, and nurses
- Edge systems interact such as an Electronic Medical Record system (EMR), a Laboratory Information System (LIS), and a Radiology Information System (RIS).
- All systems need up-to-date CPT codes to enable a seamless flow of encoded information.
- The implementation of the SVS profile would facilitate this task, improving the medical and administrative information collected about the patient.

Use Case Number Three

Consistent Encoding Terms for anatomical regions in imaging

- The radiological exams contain in the DICOM header the information “body part” or “anatomical region”.
- The “body part” is employed while creating hanging protocols for the radiologist.
- A uniform nomenclature would be desired, especially across the healthcare enterprises so that consistent display is shown.
- Not all radiology departments use a consistent nomenclature (head vs. skull).
- The PACS administrator or the technologist will have to reconcile this information so that comparison between exams can be done.
- SVS implementation can help.

Security Considerations

- A **Value Sets Repository** shall be grouped with an ATNA Secure Node or Secure Application.
- Given the wide variety of systems that will be retrieving Resolved Value Sets (e.g. embedded medical device versus PACS) the profile **does not mandate that the Value Set Consumer be grouped with an ATNA Secure Node or a Secure Application.**
- Depending on local risk assessment, local policy may mandate such grouping.
- Since the Value Set Consumer is not required to be grouped with the Secure Node or Secure Application, the **Value Set Repository shall support both secure and non-secure connections.**
- **Audit trails shall be configurable** to record access to a selected list of Value Sets.

Transactions

- **Actors:**

- **Value Set Repository:** actor whose role is to provide Resolved Value Sets

- **Value Set Consumer:** an actor who retrieves Resolved Value Sets based on their OID and possibly their version, if the latter is available.

- **Transaction:**

- **Retrieve Value Set :** The Value Set Consumer retrieves a Resolved Value Set from the Value Set Repository.

Details concerning the transactions

- **Standards:**
 - [Appendix V](#)
 - ITI TF-2:Appendix V Web Services for IHE Transactions
 - Contains references to all Web Services standards and requirements of use

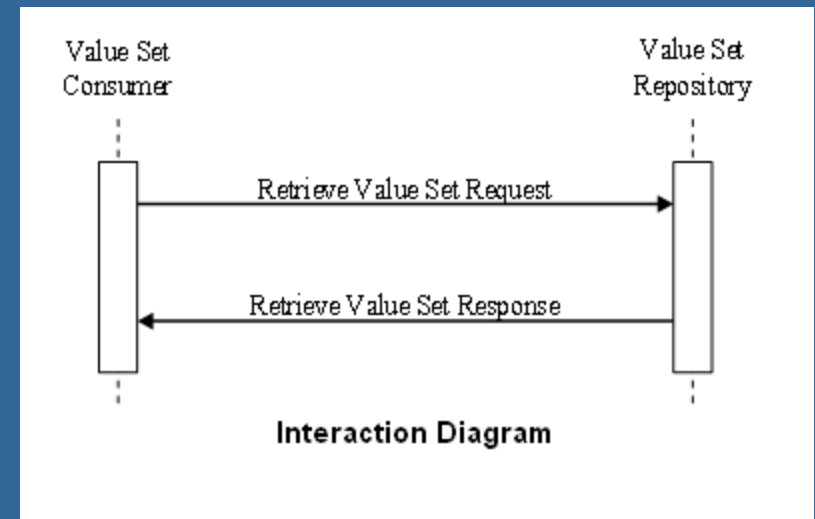
 - [HL7 v3 Data Type XML ITS](#)
 - HL7 Version 3 Standard: XML Implementation Technology Specifications – Data Types, R1

 - [HTTP 1.1](#)
 - IETF RFC 2616: Hypertext Transfer Protocol – HTTP 1.1

Transaction Description

Retrieve Value Set Request

- It is sent to the **Value Set Repository** by the **Value Set Consumer** once it has received the **OID** for the **Resolved Value Set**.
- **Value Set Repository** shall generate a **Retrieve Value Set Response** containing the **Resolved Value Set** that corresponds to the request parameters
- an **error code** if the Value Set could not be retrieved. If no version is specified in the Request, then the most recent version shall be returned.
- the **version** in the Retrieve Value Set Request is optional, and if the Value Set Consumer does not ask for it, the most recent version in the Value Set Repository is returned.
- Both **SOAP** and **HTTP** bindings are supported by the Value Set Repository, and the response will have to be in accordance with the request from the Value Set Consumer.



Transaction Description

- **Retrieve Value Set Response**
 - Is returned in response to the Value Set Consumer's request
 - The Value Set Repository will return
 - the Resolved Value Set indicated in the request
 - error code in case the Value Set could not be resolved.
 - The protocol for the Retrieve Value Set transaction supports two bindings:
 - One based on SOAP 1.2
 - One based on HTTP
 - Details about implementing each option are present in the SVS Profile and on the ihe ftp site
 - XML schema describing the response for both bindings
 - the request for the SOAP binding



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