

# Semantic Infrastructure Concept of Operations Initiative 2 Automation

## Contents of this Page

- [Automated generation of metadata from line-of-business artifacts](#)
- [Requirements](#)
- [Forum](#)

## Semantic Infrastructure Concept of Operations Links

- [Semantic Infrastructure](#)
- [Vision](#)
- [Background](#)
- [Mission](#)
- [Objectives](#)
- [Overview](#)
- [Initiatives](#)
- [Stakeholders](#)
- [Alternatives](#)

## Automated generation of metadata from line-of-business artifacts

The semantic infrastructure must support clinical domains governed by regulation and complex business relationships, and also research where agility is paramount. Experience has shown that caBIG's model-driven, labor intensive semantics does not comfortably support rapid evolution of services that is characteristic of the research domain. Also the labor intensive, UML model-centric style of metadata creation will not scale to the NHIN, nor adapt easily to non-object oriented programming. It may be possible to automatically extract the contextual information about services from line-of-business artifacts, for example from RM-ODP artifacts, Forms or from B2B service definitions, and to generate data elements that describe the context of individual services and service interactions as metadata. This initiative will explore approaches to automated metadata extraction from line of business artifacts and will implement a proof of concept extraction capability, concentrating on RM-ODP and service artifacts. If successful, this approach could reduce manual effort to define the semantics of services while also making it easier to semantically define services consistently across multiple development platforms (.NET, Semantic Web, OO, etc.) and reduce redundancy in caBIG's services portfolio. This high-risk/high reward applied research activity will be limited to analysis and small scale feasibility testing.

## Requirements

[Initiative 2 section of the Requirements Initiatives Master List](#)

## Forum

[Initiative 2 - Automated generation of metadata from line-of-business artifacts](#)