Ice Cold Manual

As-Built Guide for Cancer CDA Document Mapping Project



Team ICE COLD:

Bryan Kocol

Jeremiah Owen

Irina Muchnik

Table of  
Contents

Executive Summary 1

Problem 1

Solution 1

Architecture 1

Server Requirements 1

Environment mapping 1

# Executive Summary

Team ICE COLD was charged with the effort to convert a traditional approach to submission of cancer reports into a FHIR-based approach.

## Problem

Currently, for any reportable cancer encounter and treatment needs to be submitted manually to the National Cancer Registry so that the data can be centralized, aggregated and cures can be discovered more rapidly. With the upcoming interest in FHIR amongst the medical software manufacturers and researchers has influenced the Center for Disease Control to pioneer a method of submitting these cancer cases utilizing FHIR resources.

## Solution

The effort will include a Proof of Concept illustrating the implementation. This project was identified to be a staged effort and for this stage we were tasked with completing the following tasks:

* Map CDA Cancer report fields into FHIR resources
* Identify gaps between base-FHIR resources and the select items in the CDA Cancer report
* Implement FHIR Extensions, ValueSets, and Profiles to fill the gaps identified above
* Deploy solution onto a FHIR server

# Architecture

This section will describe the architecture that is used for this Proof of Concept

## Server Requirements

The server requirements are listed in the table below. There is also a Docker container available that will deploy the server all inclusively.

|  |  |
| --- | --- |
| **Name** | **Description** |
| **Java 8** | Java JRE 8 |
| **Hapi FHIR CLI** | **CLI deployment of HAPI FHIR Server** |

## Environment mapping

We have a supplemental spreadsheet which identifies the detailed mapping that we accomplished which maps the CDA document conformance to the corresponding FHIR resources.