Community CCR/CCD Project

Opensource CCR and CCD support
for VistA based systems

Project Update

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Collaborators

Organizations

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HP

KRM

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Topics

- Contributors
- Definition
- Purpose
- Snapshot
- Highlight

Definition: The Continuity of Care Record (CCR) is a machine readable and human readable ASTM XML standard data set of a person's clinical status

Continuity of Care Record - Mozilla Firefox

File   Edit   View   History   Bookmarks   Yahoo!   Tools   Help

file:///C:/Documents and Settings/glilly/My Documents/gpl/vista/CCRT·   Google

Continuity of Care Record

Date Created:	Tue Jan 06, 2009 at 02:58 PM UTC-05:00
From:	DEMO HOSPITAL WorldVistA EHR/VOE 1.0
To:	FATHER DEMO (Patient)
Purpose:	CEND PHR

Patient Demographics

Name	Date of Birth	Gender	Identification Numbers		Address / Phone
FATHER DEMO	Jan 01, 1955	MALE	SSN	554367867	**Home:** 3433 Smith St Oklahoma City, OKLAHOMA32245

Alerts

Type	Date	Code	Description	Reaction	Source
			Patient has an UNKNOWN reaction to PENICILLINS.	RASH	MARY G HAGER CLINICAL COORDINATOR

Problems

Type	Date	Code	Description	Status	Source
Problem		401.9 (ICD9CM)	HYPERTENSION		
Problem		305.1 (ICD9CM)	TOBACCO USE		
Problem		250.00 (ICD9CM)	TYPE 2 DIABETES MELLITUS		
Problem		401.9 (ICD9CM)	HYPERTENSION		

Done

The CCR dataset has many intended purposes including the exchange of medical records, synchronization with clinical repositories, and the transformation into clinical messages

Meaning Use – ARRA Stage 1 Interoperability Certification
- The CCR is now accepted for ARRA Information Exchange

Exchange of medical records:
- Between two EHR systems (VistA<->VistA and VistA<->Other)
- With a Personal Health Record (PHR) – like Google Health or MS HealthVault
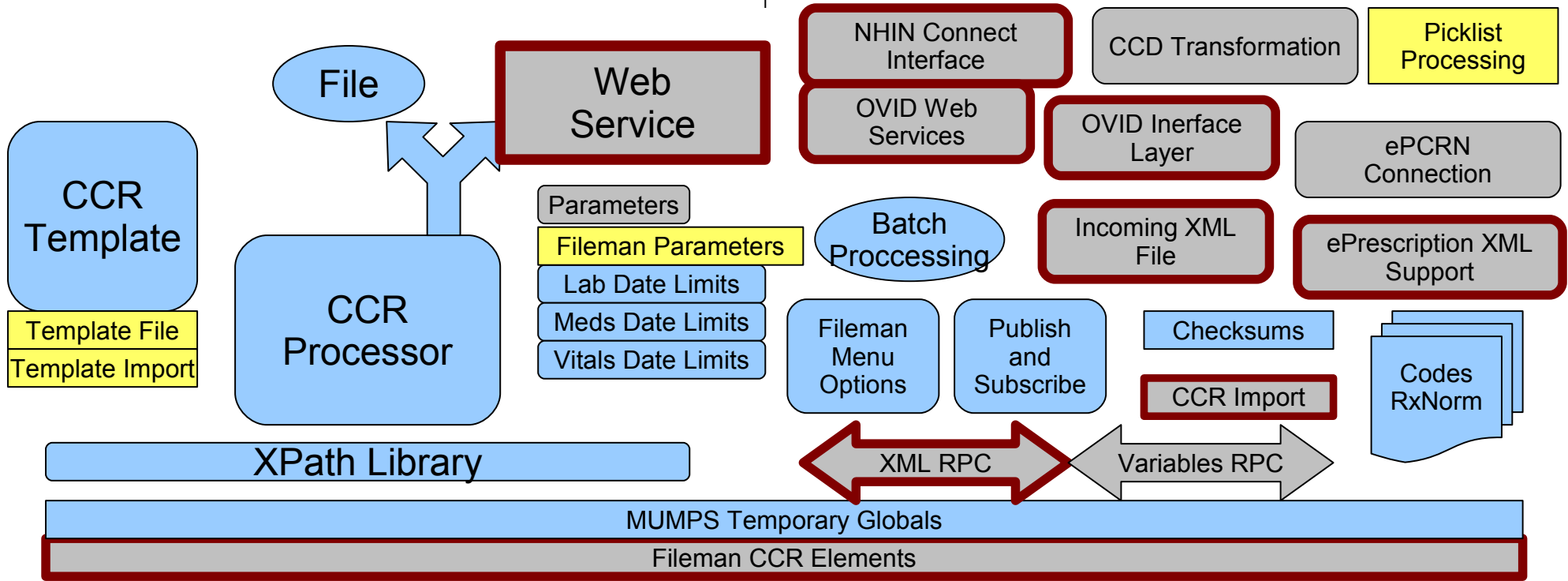
Synchronization with clinical repositories:
- For clinical decision support
- For research and clinical trials – as with the Electronic Primary Care Research Network (ePCRN)

Transformation into clinical messages
- XSLT transformation into a Continuity of Care Document (CCD)
- For use the the National Health Information Network (NHIN)
- For CCHIT Certification
- For HIPAA Claims Attachments
- Transformation into XML Web Service messages for ePrescribing

CCR/CCD PROJECT SNAPSHOT 10/29/2009

File

CCR Template

Web Service

NHIN Connect Interface

CCD Transformation

Picklist Processing

OVID Web Services

OVID Inerface Layer

ePCRN Connection

Template File

Template Import

CCR Processor

Parameters

Fileman Parameters

Batch Proccessing

Incoming XML File

ePrescription XML Support

Lab Date Limits

Meds Date Limits

Vitals Date Limits

Fileman Menu Options

Publish and Subscribe

Checksums

Codes RxNorm

CCR Import

XPath Library

XML RPC

Variables RPC

MUMPS Temporary Globals

Fileman CCR Elements

Export

Family History	Advance Directives	Lab Results	Vital Signs	
Procedures	Support	Payers	Medications	Problems	Actors
Encounters	Functional Status	Immunizations	Alerts/Allergies
Plan of Care	Medical Equipment	Social History	

Import (Accessioning)

Alerts/Allergies

Medication Advisories (ePrescribing)

GTM
Cache
OpenVistA

GTM
WorldVistA EHR

GTM
Cache
FOIA VistA

GTM
Cache
RPMS
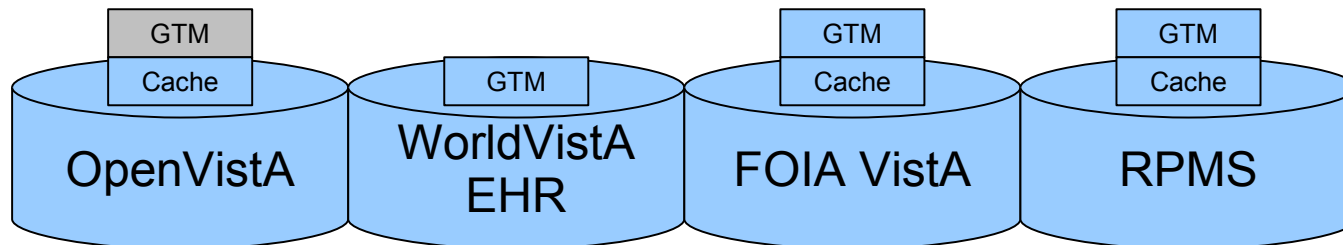
Andy Pardue and Richard Braman have interfaced the CCR Extract with OVID Web Services and Glassfish for use with the VistA NHIN Gateway Adaptor

An Incoming XML file has been added and OVID support defined to help meet "incoming" ARRA Meaningful Use 2011 Interoperability Requirements

The Display & File Test (From CCHIT Script)

- Before the inspection begins, the CCHIT proctor emails the applicant a CCD/C32 document for an existing patient in their system

- The CCD/C32 file is processed by the system undergoing certification testing:

- Patient registration information from the CCD/C32 file is used to match to the appropriate preexisting patient chart (Note: there is no requirement to match the patient with the document automatically)

- The CCD/C32 document is filed into this patient chart

- The CCD/C32 document is then displayed from this patient chart

- CCHIT Jurors observe that the system displays the expected results

- Note: CCHIT will use the Laika tool to generate a HITSP C32 v2.5 document for the applicant to display.

Expected Results

To pass this step for CCHIT certification, EHR systems must achieve these expected results:

The system shall match the patient registration information to one of several charts created before certification testing begins, and "File" the given CCD/C32 as a document into this chart.

Matching the patient registration information can be done manually by looking at patient demographic information or automatically by the system based on the header information.

For both the "File and Display" and "Generate and Format" test steps, the system shall produce a human readable view of the CCD/C32 **displaying these essential elements**

- **From the Person Information Content Module:**

  – Patient Name

  – Patient Date of Birth

  – Patient Gender

- **From the Allergy and Drug Sensitivity Content Module:**

- **From the Medication – Prescription and Non-Prescription Module:**

- **From the Conditions Module**

- **From the Results Module**

- **From the Procedures Module (Inpatient only):**

  – Section Title

  – Associated narrative text (formatted text encoded between <text> and </text> tags)