

Gnomon Informatics

Hackathon Athens 8-10 Feb 2019

Disaster
Management
Scenario

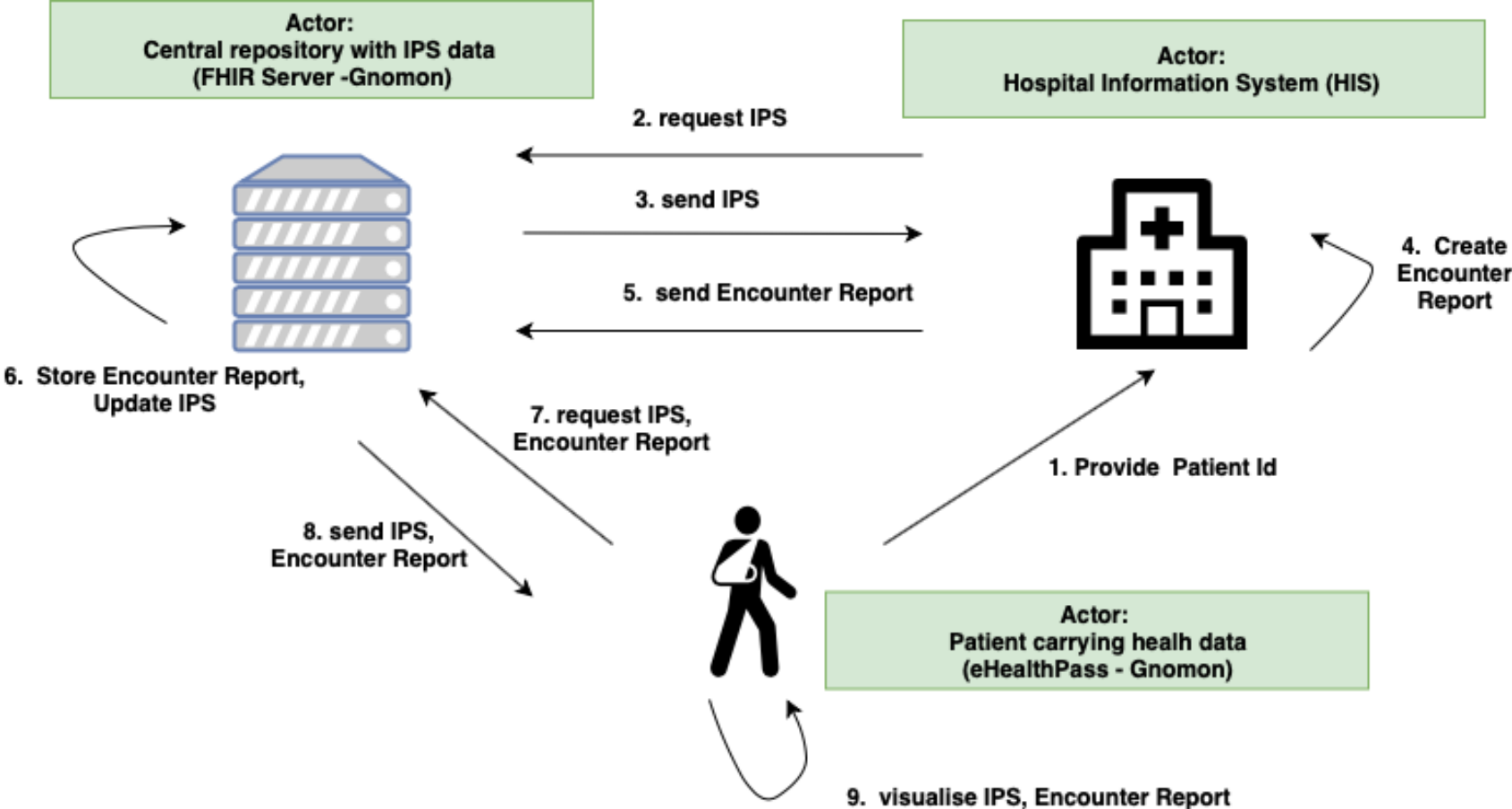
Disaster Management Scenario (1/2)

➤ Description

In the case of a disaster (e.g. earthquake), physicians are able to retrieve the Patient Summary of the victims from the respective FHIR server.

In addition, the victims may display the Patient Summary to the physicians using their mobile phones.

Disaster Management Scenario (2/2)



Test Data - Construction

- Example of Patient data

Janette Eiren (id 43-125)

Allergies and Intolerances

No information about allergies

Active Problems

[2014-10-02] - Hypercholesterolemia

[2008-10-21] - Diabetes Type 2

[2010-11-21] - Previous Septal Myocardial Infarction

Medication

[2018-10-08] - No information about medications



Test Data

- Example construction of “Patient” FHIR resource

```
<Patient xmlns="http://hl7.org/fhir" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" >
  <id value="eumfh-43-125"/>
  <meta><lastUpdated value="2018-10-10T13:51:24+02:00"/></meta>
  <extension url="http://hl7.org/fhir/StructureDefinition/patient-citizenship">
    <extension url="code">
      <valueCodeableConcept>
        <coding>
          <system value="urn:iso:std:iso:3166"/>
          <code value="US"/>
          <display value="United States of America"/>
        </coding></valueCodeableConcept>
      </extension>
    </extension>
  <identifier>
    <system value="http://trilliumbridge.eu/fhir/demos/eumfh/inject"/>
    <value value="43-125"/>
  </identifier>
  <identifier>
    <system value="http://trilliumbridge.eu/fhir/demos/eumfh/patient_id"/>
    <value value="EUR01P0007"/>
  </identifier>
  <active value="true"/>
  <name>
    <family value="Eiren"/>
    <given value="Janette"/>
  </name>
  <gender value="female"/>
  <birthDate value="1941-05-23"/>
</Patient>
```



Test Data

- Example construction of “Condition” FHIR resource

```
<Condition xmlns="http://hl7.org/fhir" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://hl7.org/fhir ../../../../../../fhir-all-xsd/condition.xsd">
  <id value="eumfh-43-125-2"/>
  <clinicalStatus value="active"/>
  <code>
    <coding>
      <system value="http://hl7.org/fhir/sid/icd-10-cm"/>
      <code value="E11.9"/>
      <display value="Type 2 diabetes mellitus without complications"/>
    </coding>
    <text value="Diabetes Type 2"/>
  </code>
  <subject>
    <reference value="Patient/eumfh-43-125"/>
    <display value="Janette Eiren (inject 43-125)"/>
  </subject>
  <onsetDateTime value="2008-10-21"/>
  <asserter>
    <reference value="Practitioner/eumfh-43-125"/>
    <display value="Dr. Eric Ashton"/>
  </asserter>
</Condition>
```



FHIR Server (upload IPS)

- Upload FHIR resource on the FHIR Server

PUT <http://ehealthpass.gnomon.com.gr/hapi-fhir-jpaserver4/baseDstu3/Bundle/eumfh-43-125>

content-type	"application/xml; charset=UTF-8"
body	<pre><?xml version='1.0' encoding='UTF-8'?> <Bundle xmlns='http://hl7.org/fhir' xmlns:xhtml='http://www.w3.org/1999/xhtml' > <id value='eumfh-43-125'/> <identifier><system value='http://trilliumbridge.eu/fhir/demo s/eumfh/ips_id'/><value value='EUR01P0007'></value></identifier > <!-- OMISSIS --> </Bundle></pre>



FHIR Server (Request IPS)

- Request IPS from the FHIR Server

GET <https://ehealthpass.gnomon.com.gr/ehealthpass-fhir/baseDstu3/Patient/eumfh-43-125>



Retrieved IPS

➤ Example of IPS retrieved from the FHIR server and visualised in eHealthPass

12:45

← International Patient Summary

NAME	IDENTIFIER
Marie-Louise Joulent	eumfh-70-281
ADDRESS	BIRTH DATE
	1986-08-27
PHONE	GENDER
	Female

Conditions

Family history of neoplasm of breast

CODE	313102001
DATE	2012-11-22
ASSERTER	Dr. Joanne Brown

Familial hypercholesterolemia

CODE	E78.01
DATE	2002-11-23
ASSERTER	Dr. Joanne Brown

Allergies

penicillin

CODE	764146007
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12:52

← International Patient Summary

epierenone

CODE	C03DA04
DATE	2015-02-10
DOSAGE	25 mg/day

thiamazole

CODE	H03BB02
DATE	2015-02-10
DOSAGE	500 milligram, 2 times per 1 day

pantoprazole

CODE	A02BC02
DATE	2015-02-10
DOSAGE	40 mg/day

Observations

Pregnancy status

CODE	82810-3
DATE	N/A
ASSERTER	N/A

Encounter Reports

Tap to a report to view more

No Encounters



Repositories / Resources

- Test patients document

https://docs.google.com/spreadsheets/d/1tIbGUtYkay1GIPDoeXYbwzxnktsozPtZeOZG_OWaC8M/edit?usp=sharing_eil&ts=5c1b5636

- IPS FHIR Resources

<https://github.com/gcangioli/trilliumII/tree/master/examples/EUMFH>

- IPS Examples on Simplifier

https://simplifier.net/trilliumii/~resources?category=Example&sortBy=RankScore_desc

- HCER FHIR Resources

<https://github.com/gcangioli/trilliumII/blob/master/examples/EUMFH/hcer/encounter.GNOMON.sample.xml>



Actors

➤ Patient



eHealthPass

➤ FHIR Server



eHealthPass

➤ Hospital Information System

