



GNU Health : Current status and Next Steps

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GNU Health : Functionality



Patient Management (EMR)

Evaluations, Socioeconomics, Lifestyle, Genetics, Surgeries...

Hospital Information System (HIS)

Finances, HR, hospitalizations, Laboratory, stock, suppliers...

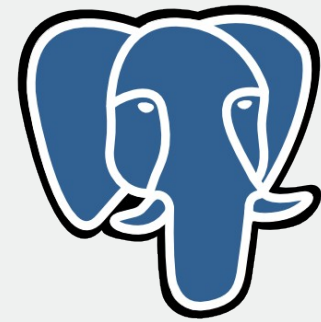
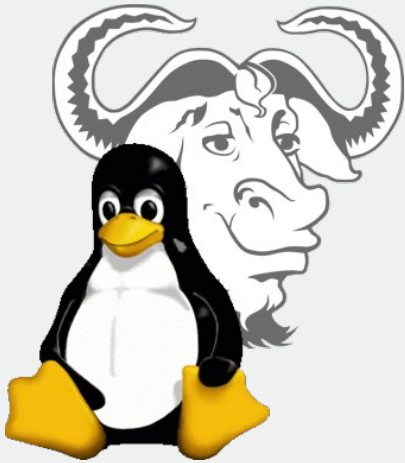
Health Information System

Reporting, epidemiology, OLAP, decision taking support

GNU Health : The Free Health and Hospital Information System



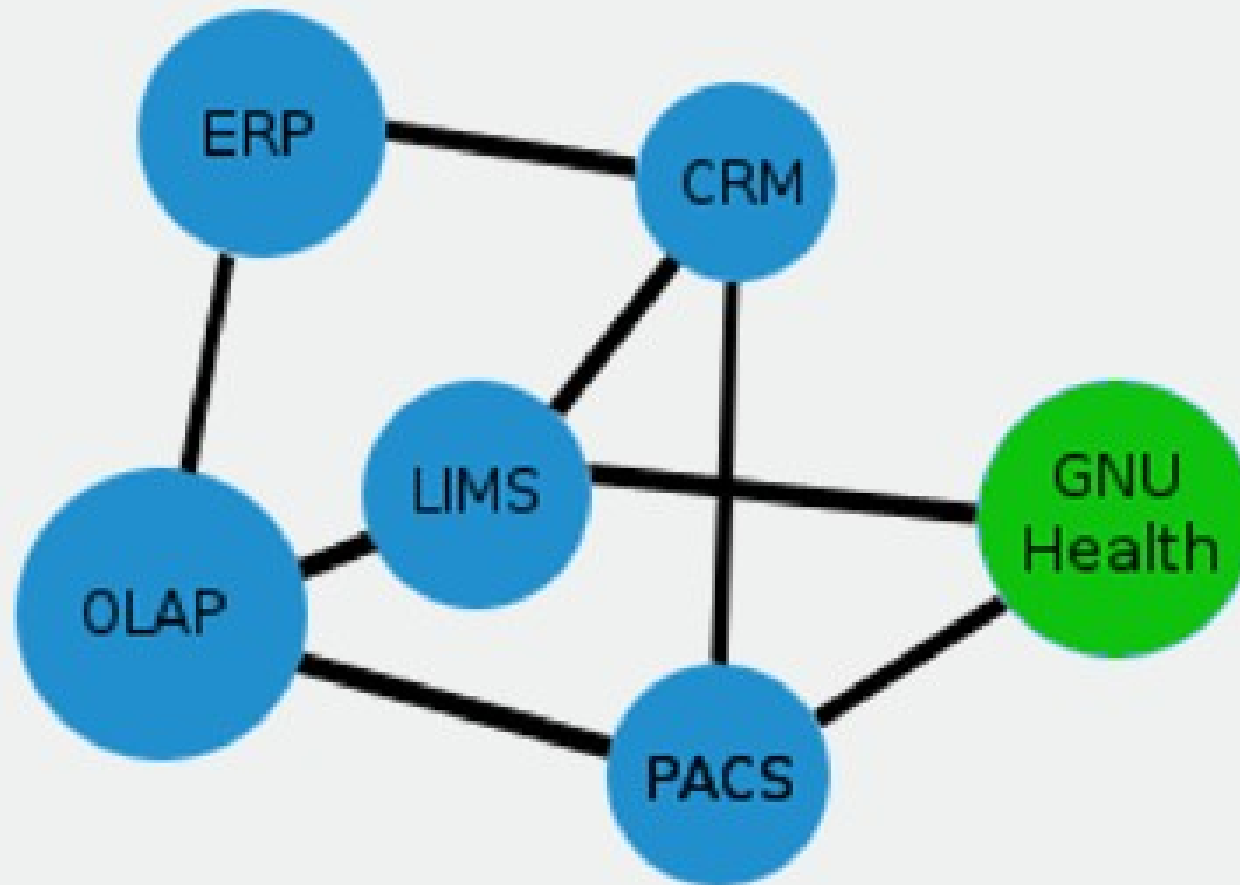
GNU Health relies on Free Technology



PostgreSQL



Interoperability



GNU Health : Modular Design

GNU Health Modular Design



Interoperability : Lab Module

File User Options Favorites Help

Search

- Party
- Product
- Financial
- Currency
- Inventory & Stock
- Calendar
- Health
 - Patients
 - Patients
 - Appointments
 - Prescriptions
 - Demographics
 - Laboratory
 - Request Lab Test
 - Lab Test Requests
 - Lab Tests Results**
 - Hospitalizations
 - Pediatrics
 - Nursing
 - Health Services
 - Reporting
 - Configuration
 - Administration

Lab Tests Results 1 / 1

Main Info Extra Info

ID: TEST001 Test type: COMPLETE BLOOD COUNT

Date of the Analysis: 06/30/2013 23:09:19

Patient: Betz, Ana Pathologist: Hadley, Remy

Date requested: 07/01/2013 02:05:03 Physician: Cordara, Cameron

Lab Test Critearea (14/18)

Warn	Excluded	Analyte	Value	Result - Text	Lower Limit	Upper Limit	Units	Remarks
☐	☐	Hemoglobin	12.00		11.00	16.00	g/dL	
☐	☐	RBC	4.50		3.50	5.50	10 ⁶ /uL	
☐	☐	HCT	39.00		37.00	50.00	%	
☐	☐	MCV	83.00		82.00	95.00	fL	
☐	☐	MCH	28.00		27.00	31.00	pg	
☐	☐	MCHC	33.00		32.00	36.00	g/dL	
☐	☐	RDW-CV	13.00		11.50	14.50	%	
☐	☐	RDW-SD	40.00		35.00	56.00	fL	
☒	☐	WBC	13.00		4.50	11.00	10 ³ /uL	Patient with bacterial pneumonia
☒	☒	NEU%	75.00		40.00	70.00	%	
☐	☐	LYM%	22.00		20.00	45.00	%	
☐	☐	MON%	5.00		2.00	10.00	%	
☐	☐	EOS%	3.00		1.00	6.00	%	
☐	☐	BAS%	0.00		0.00	2.00	%	

Administrator - GNU SOLIDARIO HOSPITAL [Euro] Waiting requests: 0 received - 0 sent admin@localhost:8000/health20rc1



Integration with Occhiolino

[HOME](#)[DEVELOPMENT](#)[PARTNERS](#)[CONTACT](#)

Occhiolino

Modular, community-based Free/Libre
Laboratory Information Management System
for the Tryton framework.

By GNU Solidario

(Occhiolino)

GNU LIMS, also known as Occhiolino, is brought to you by GNU Solidario. The GNU LIMS project goal is to create a modular, community-based Free/Libre Laboratory Information Management System for the Tryton framework.



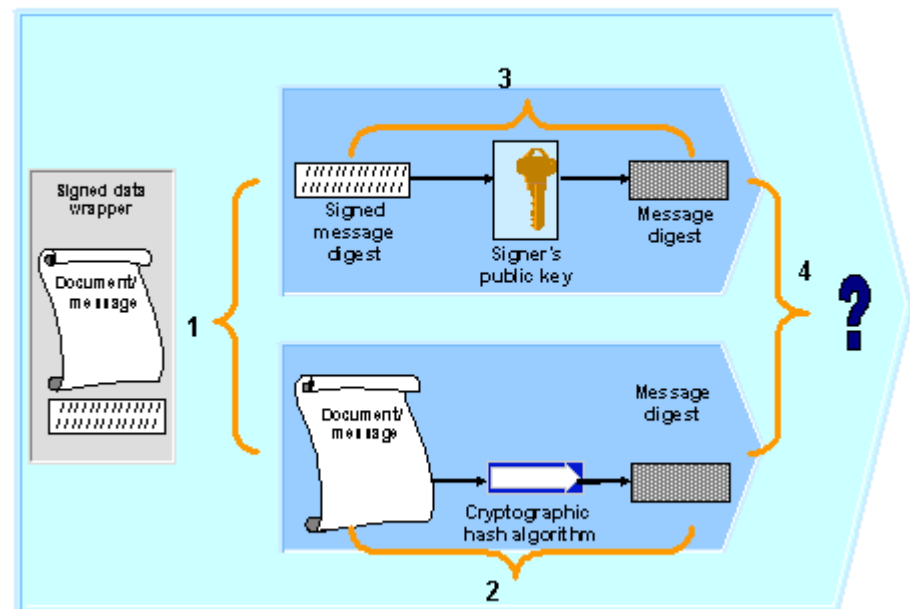
PKI / Signing / Encrypting

Sign encounters / medical acts

Electronic prescription

Digital Signature of medical documents

Encryption



Native HL7 messaging



MSH|^~\&|MegaReg|XYZHospC|SuperOE|XYZImgCtr|20060529090131-0500||ADT^A01^ADT_A01|01052901|P|2.5

EVN||200605290901||||200605290900

PID|||56782445^^^UAREg^PI||KLEINSAMPLE^BARRY^Q^JR||19620910|M||2028-9^^HL70005^RA99113^^XYZ|260 GOODWIN
CREST DRIVE^^BIRMINGHAM^AL^35 209^M~NICKELL'S PICKLES^10000 W 100TH AVE^BIRMINGHAM^AL^35200^^O |||||||
0105I30001^^^99DEF^AN

PV1||I|W^389^1^UABH^^^^3||||12345^MORGAN^REX^J^^MD^0010^UAMC^L||678 90^GRAINGER^LUCY^X^^MD^0010^UAMC^L|
MED||||A0||13579^POTTER^SHER MAN^T^^MD^0010^UAMC^L|||||||||||||||||||||200605290900

OBX|1|NM|^Body Height||1.80|m^Meter^ISO+||||F

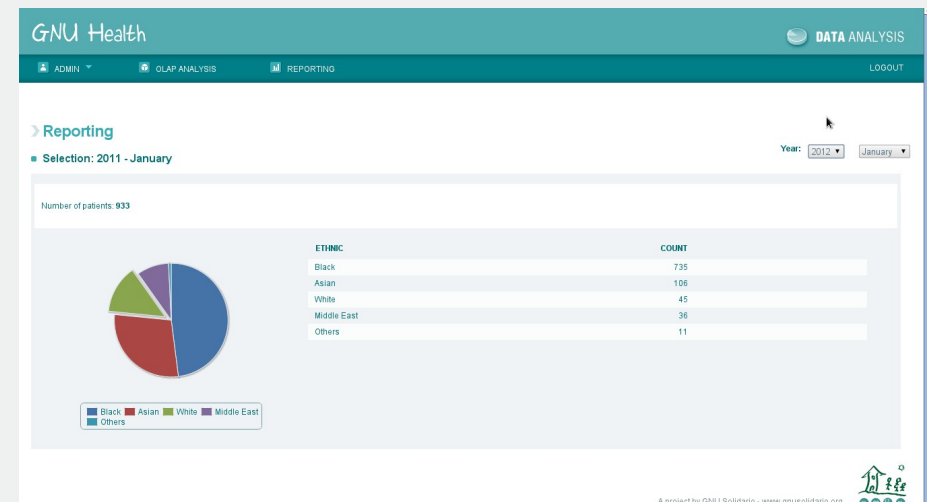
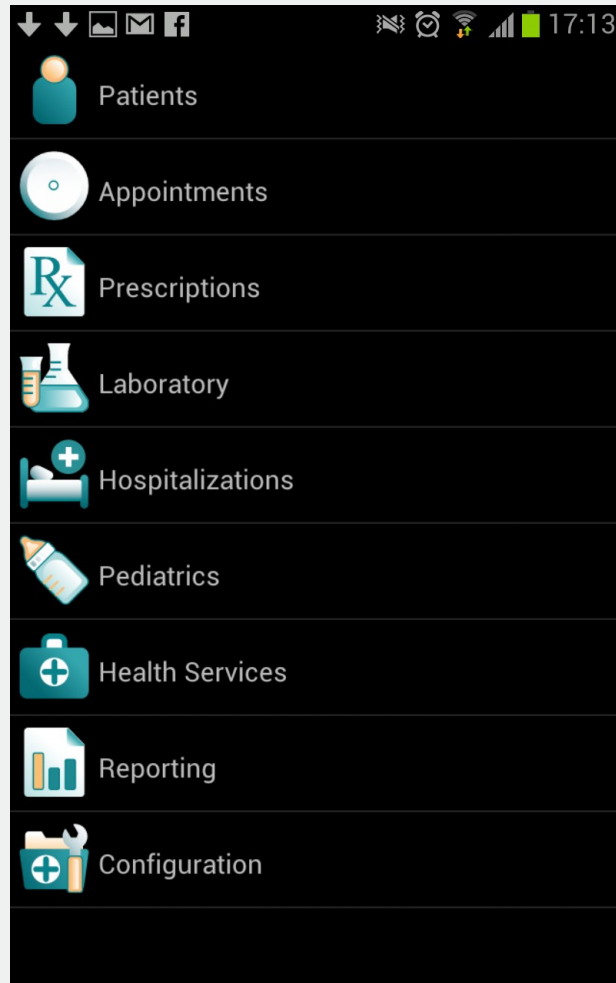
OBX|2|NM|^Body Weight||79|kg^Kilogram^ISO+||||F

AL1|1||^ASPIRIN

DG1|1||786.50^CHEST PAIN, UNSPECIFIED^I9|||A



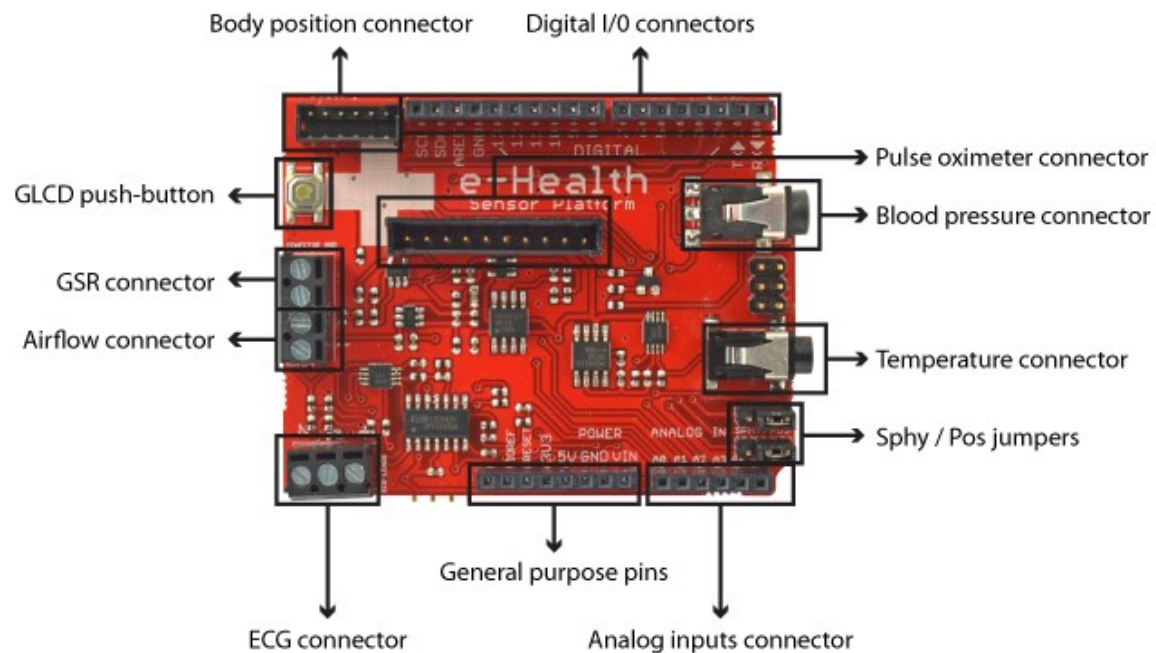
Mobile Clients – Web Client



Distributed - Environments



Arduino integration / eHealth Sensors

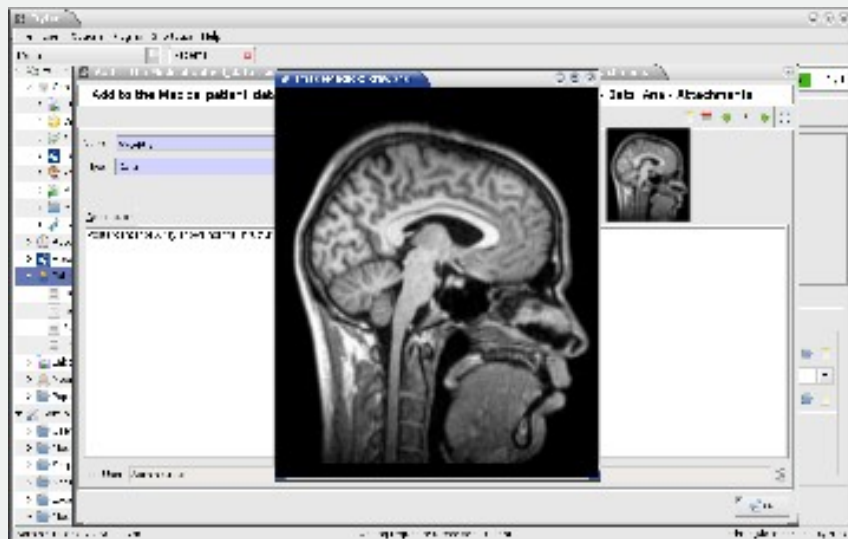


Images from Cooking-Hacks



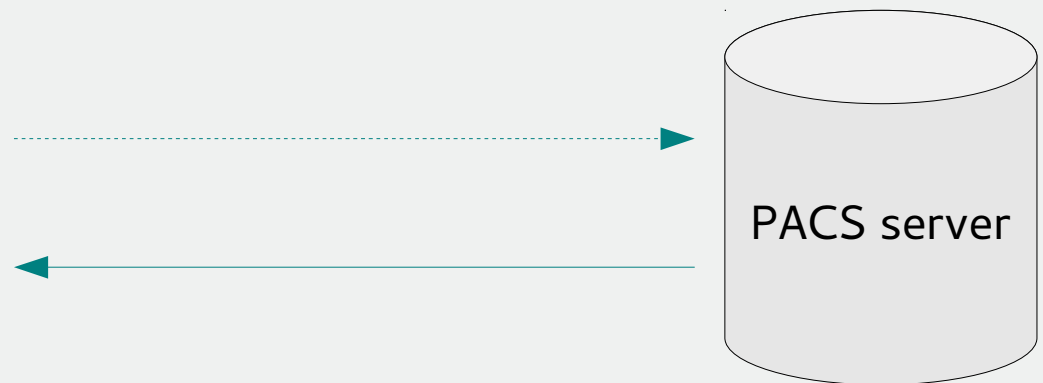
Interoperability - Imaging

GNU Health



Can store the image, metadata
or DICOMDIR location

ORTHANC



Georeferencing and Early Warning System

File User Options Favorites Help

Patients Domiciliary U ... 1 / 1

Domiciliary Units

Code: Desc:

Street: Number: Apartment:

District: Municipality: City:

Zip Code: Country: Province:

Latitude: Longitude: OSM Map:

Conditions:

Infrastructure

Material: Roof:

Bathrooms: Running Water: ☒ Telephone: ☒

Gas supply: ☐

Members

Code	Name	Last Name	SSN
2	Ana	Betz	55567890
5	John	Zenón	40556644
4	Matt	Zenon Betz	97234436

Visualizza Modifica Storico Esporta

Type: Single / Detached House

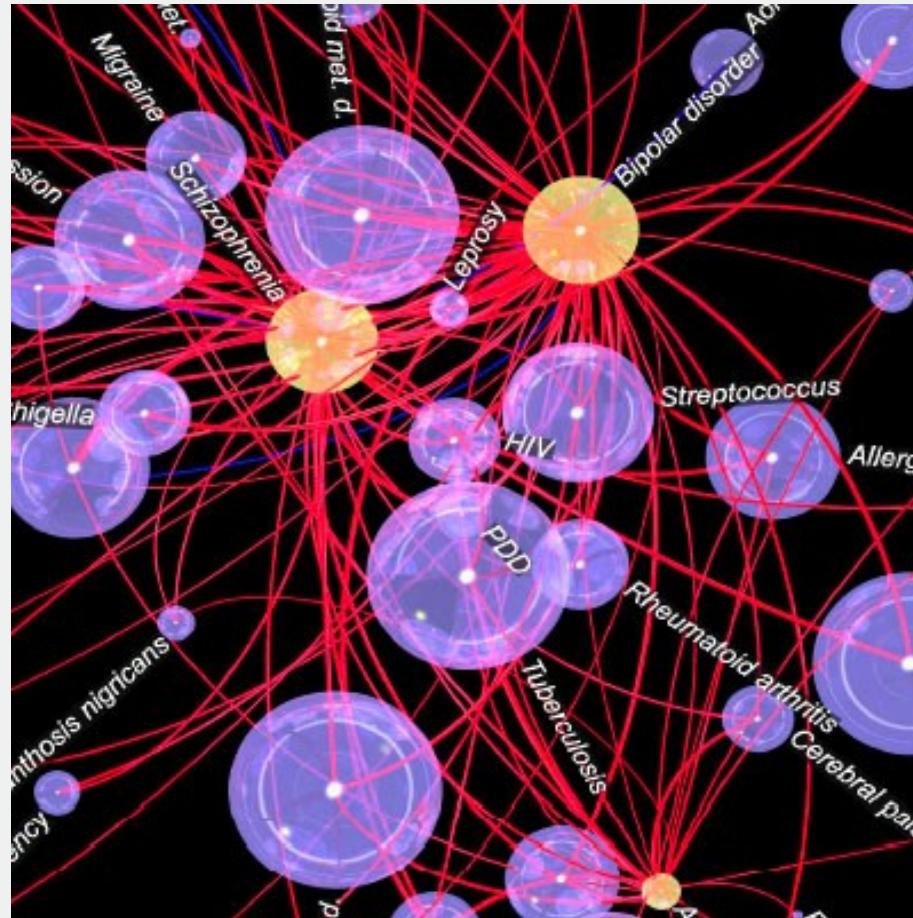
Waiting requests: 0 received - 0 sent

admin@localhost:8000/health20rc1

Integración entre Open Street Maps (OSM) y GNU Health



Reporting and Epidemiology Engine



“Epidemiological Transition”



Communitary Development Environment



Localization portal : over 30+
languages



Source code, mailing lists, bugs
GNU Savannah



Thank you !

health.gnu.org



Twitter : @gnuhealth

Health must remain a NON-NEGOTIABLE Human RIGHT

