openIMIS

Gumzo ya Mwezi 02/09/2019

BLUESQUARE

Agenda

- Bluesquare:
    - who we are
    - our engagement towards openIMIS community
    - our methodology
- Achieved
    what we delivered this month

- Roadmap

    what we will deliver and what are our dependencies

BLUESQUARE

Delivering innovative technology for better lives.

www.bluesquarehub.com

Fall 2018

what we do
COUNTRY LEVEL DATA SYSTEMS
24 COUNTRIES

We build technologies that enhance governmental health data systems with a focus on three markets:

HEALTH FINANCING DATA SYSTEMS
- Data systems for purchasers, health insurance, Ministries of Health
- Example: Develop a Pay for Performance data system in Kyrgyz hospitals

GOVERNMENT HEALTH DATA WAREHOUSES
- Example: The health data warehouse in Morocco

DISEASE OR THEMATIC DATA SYSTEMS
- Diabetes
- HIV
- Tuberculosis
- Malaria
- Immunization systems
- Vector Borne eradication systems (i.e. sleeping sickness)
- Family Planning
- Emergency Obstetric Care

Bluesquare develops these data systems based on a suite of in-house software products connected to DHIS2 a popular open source data management platform used by over 40 governments.

How we do
IT products and data services

We deliver technologies and services that strengthen governmental health data systems, mainly:

Hesabu (aka ORBF)
- An open sourced rule engine that allows complex calculations in DHIS2, a popular open source data management platform. This is particularly useful for health financing data systems.

Data Viz
- A public web dashboard that allows showcasing results.

Modeling and data science
- Statistical analysis, Data cleaning, Modeling & machine learning and analysis automation to help customers bring value out of their health data.

Bluesquare suite of in-house software products and services allow collecting, computing, analyzing and visualizing data in a intelligent and friendly manner.

24
COUNTRIES

Bluesquare: our engagement towards openIMIS community

We believe that health insurance will be at the heart of the UHC agenda in many countries.

openIMIS modular transformation is an opportunity to develop code that can be used at scale to help provide health services "for the global good" (i.e. exact DNA of Bluesquare).

Creating synergies with our existing and future health-financing portfolio, promoting the tool in the countries where we operate.

Bluesquare: our methodology

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Our approach to deliver the openIMIS modules borrows several concepts from TOGAF, most important one being the ADM (Architecture Development Method):
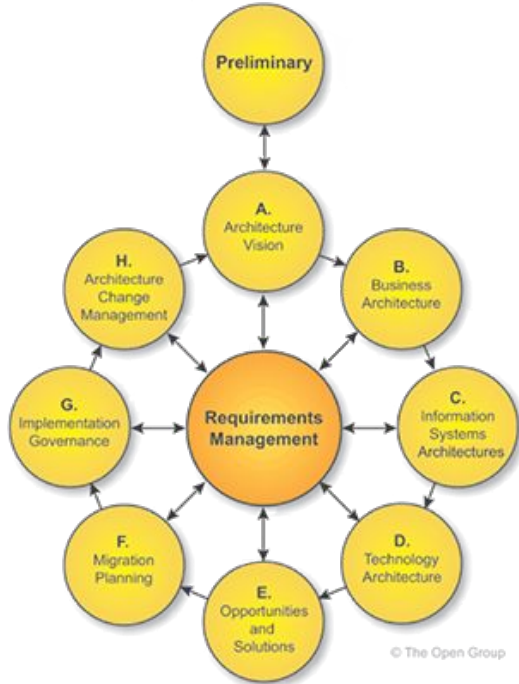
- Iterative, ensuring pragmatism and responsiveness in delivered solution

- We strive to keep things simple: we aim to use the TOGAF framework as a guide not a rule book. Where we feel it will serve this project we will make use of it. However, our proposed approach is much lighter than a traditional TOGAF implementation effort.

- It helps any community member to find/contribute to the appropriate part of the system.

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Achieved (Iteration 1): FHIR API
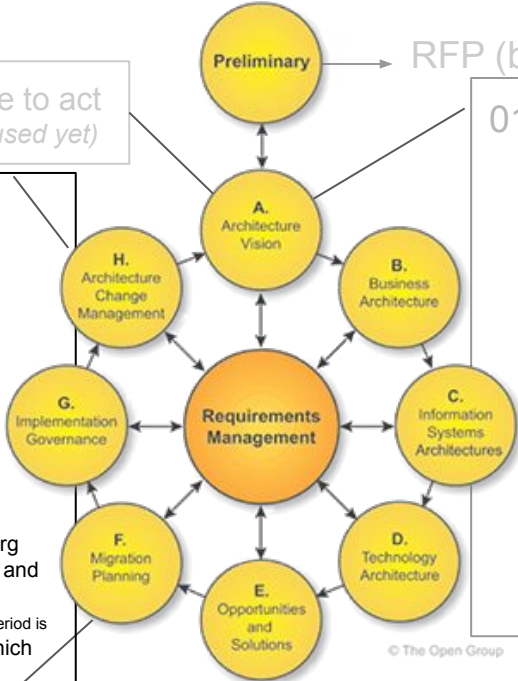
No architecture change to act
(but deliverable not really used yet)

RFP (by GIZ) - 10/2018

01/2019: start of work

- Brainstorming (blsq internal)
- Conceptual architecture documentation (in openIMIS wiki)
- Architecture Presentations (16/01 and 23/01 + follow-up calls)

6 m/d

- Technology stack proposal
- Migration strategy & roadmap
- PoC on proposed technology stack
(preparation 'hands on' session at Bonn Workshop)

14 m/d

Under progress:
Objective iteration 1: FHIR API
03/2019 13 m/d
04/2019: 12 m/d
05/2019: 4 m/d
06/2019: 0,5 m/d
07/2019: 0 m/d
08/2019: 1,5 m/d
- setup & maintenance openimis.blusquare.org
- help analysing source of problems (cfr.Jira) and
  possible solutions
  … one of them is ONCO-98 (Eligibility Validity Period is
  not included in Response of Eligibility Response), for which
  we made some prep work: PR

TODO (Bluesquare):
follow up, bug fix and adaptations

Bonn Workshop
Demonstrated technology
stack and migration strategy
- Agenda alignments

4 m/d

Preliminary

A. Architecture Vision

H. Architecture Change Management

B. Business Architecture

G. Implementation Governance

Requirements Management

C. Information Systems Architectures

F. Migration Planning

E. Opportunities and Solutions

D. Technology Architecture

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Achieved (Iteration 2): All Proxies

Under maintenance:
Objective iteration 1: All proxy (frontend) setup
05/2019: 10 m/d
06/2019: 8,5 m/d
07/2019: CLOSED
Enquiry screen moved into the claim module scope!

01/05 - No change in Iteration 2 scope (architecture vision, business arch, …)

CLOSED Since 01/08

Achieved (Iteration 3): Claim Module
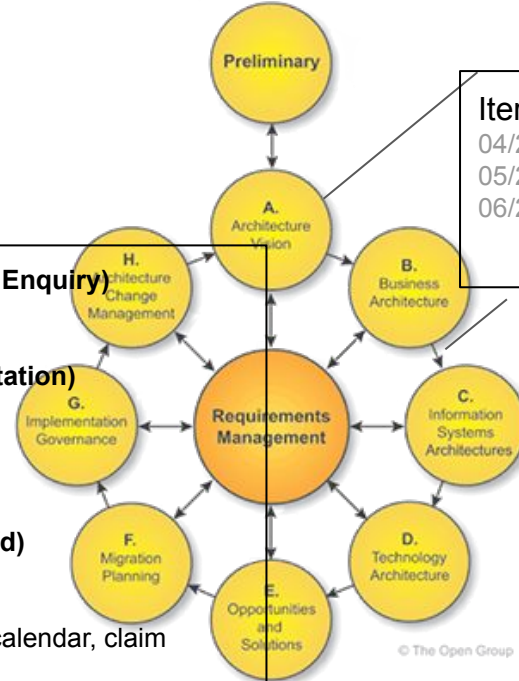
Iteration 3:
04/2019 : Claim module scope document (draft)   2 m/d
05/2019 : Mapping attempt to JLN business processes   0.5 m/d
06/2019 : Claim main screen mockups (+ sessions with implementors) 4,5 m/d

06/2019: Django Dynamic Rest > Graphene (GraphQL) 4 m/d

07/2019: 12 m/d (scope, design & Enquiry)
- Enquiry Screnn
- Claim scope & Design

08/2019: 34 m/d (Claim implementation)
- Health Facility Claims
- Reviews
- Batch (screens only)

TODO Bluesquare (remains 33 m/d)
- Batch backend
- Security
- Nepali context: calendar, claim attachments, …
- 4 "week" iterations to go into "all the details"... and get ready for October release.
- Integrate with translation platform
- Run the acceptance test and start using OMT to track issues

Generic Audit Log (last actions)

Drawer displaying the last actions
... and their status

Mechanism is **completely generic:**
- in openimis-fe-core_js
    - "JournalDrawer" component
    - "journalize" decorator for module-specific graphql mutations (i.e. create/update/delete actions)
- in openimis-be-core_py
    - "MutationLog" entity
    - "OpenIMISMutation" graphql abstract relay

IMPACT:
We now have the choice to archive entities via
- version history (keep each versions, as it is now)
- change log (keep delta changes)
… or both

Health Facility Claims

Cross-pages selection
Selection summary pane

User-select page size
(with limits)

Claim Edition

Auto-grow tables for services & items

Claim Review

Feedback Edition

3 states switches:
- Unknown
- Yes
- No

Claim Review Edition

Totals displayed as header (cfr. Nepali adaptation)

openIMIS 0.0.1   Insurees and Policies ⌄   Claims ⌄   Administration ⌄   Tools ⌄   Profile ⌄   🔍 Insuree enquiry...   ⊡   ⑦

⟨   **Claim UPDH0002**

Health Facility	Insuree	Claimed Date	Visit Date From	Visit Date To
UPHOS001 Uptol District Hospital	Listy Joseph (101000003)	2018-12-22	2018-12-22	2018-12-22

Visit Type	Main Diagnosis	Guarantee No.	Claimed
Referral	A038 Other shigellosis		$ 21010

Sec Dg1	Sec Dg2	Sec Dg3	Sec Dg4

Explanation	Adjustment

Services ($ 21,000)

Service	Quantity	Price	Explanation	App. Quantity	App. Price	Justification	Status	R
M14 SUR In Growi	1	$ 21000		1	$ 21000		Approval Status Passed	0

Items ($ 10)

Item	Quantity	Price	Explanation	App. Quantity	App. Price	Justification	Status	R
0182 PARACETAM	1	$ 10		1	$ 10		Approval Status Passed	0

Batch (screen only)
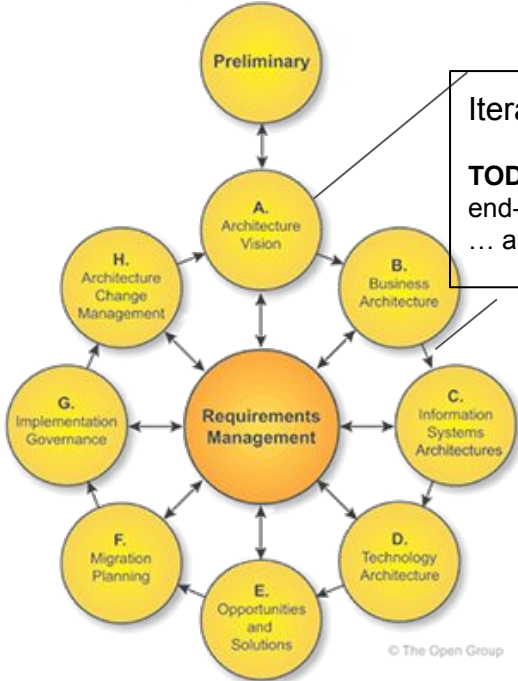
Iteration 4: ?? Module

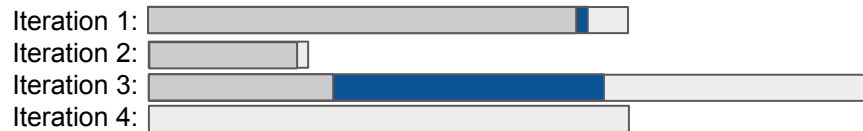

Iteration 4:

TODO: identify, scope & design the module to be implemented
end-september/october
… and start implementing!

Roadmap (Bluesquare)

- Iteration 1 (04/2019): Building blocks for FHIR API

    Dependencies:
    - Identified data to be mapped (cfr. xls of Soldevelo) & stored proc to be called
    - ✓Module boundaries (started with the one documented in wiki and shown @Bonn)
    - ✓follow up, bug fix and adaptations

- Iteration 2 (05/2019): "All proxy" openIMIS CLOSED

- Iteration 3 (09/2019): Claim module

    Dependencies:
    - Finalize implementation (batches, reports,...)
    - Run Acceptance Test (from input)

- Iteration 4 (11/2019): 2nd module

    - Dependencies
        - Identify "the" module, scope & design it … by mid september!