


NIST

 GLOBAL CITY
TEAMS CHALLENGE

usignite

 dew
MOBILITY

 NIST Global Cities Teams Challenge Expo, 13th – 15th June 2016, Austin TX, USA

HealthNet: Smart Interactive e-Health Platform

Nicholas Omoregbe, Davies Adeloye and Folusho Ayeni

Covenant University, Ota, Nigeria

1. Introduction

The CU HEALTHNET is an e-Health interactive platform of Covenant University, Ota, Nigeria, pioneered by the e-health Research sub-Cluster of the University. It has been uniquely and innovatively developed to engage the public, health professionals and health care providers on key health issues in Nigeria and the African region within an online forum. Users are privileged to access relevant health news, healthcare solutions, health education and promotion options, emergency services through her partners, live consultations and chats with verified medical practitioners, and online directory of registered healthcare providers, health maintenance organizations and medical practitioners. The online course on Public Health and Informatics will further help advance the knowledge of the public on spectrum of public health issues, geared towards improving information flow, interventions and patient outcomes. The research repository and blog offer evidence-based findings on several health issues that can inform equitable public health and policy decisions. The CU HEALTHNET is committed to improving health systems and health service delivery in Nigeria and across many parts of Africa.

<https://cuhealth.net/>

2. Goal

CU SmartHealth is cost-effective, accessible, contextually feasible and integrable Smart electronic health platform designed for use within Covenant University. The goal of the project includes the following:

- To design an e-health system through multiplatform portable devices linked to the university health center and resident medical practitioners, nurses, pharmacists, and laboratory workers;
- To design individual electronic patient records routed to the university health center to facilitate timely and appropriate health care delivery;
- To design an interactive e-health hub for the university community using chats and multimedia messages, reminders, alerts to increase awareness, knowledge and prevention of prevalent and emerging health issues;
- To test-run, evaluate and fully develop the application over one-year period of the project for effective smart health delivery within the university community and the extended society, all driven towards gradual integration into the Nigerian health system.

3. Application Flow

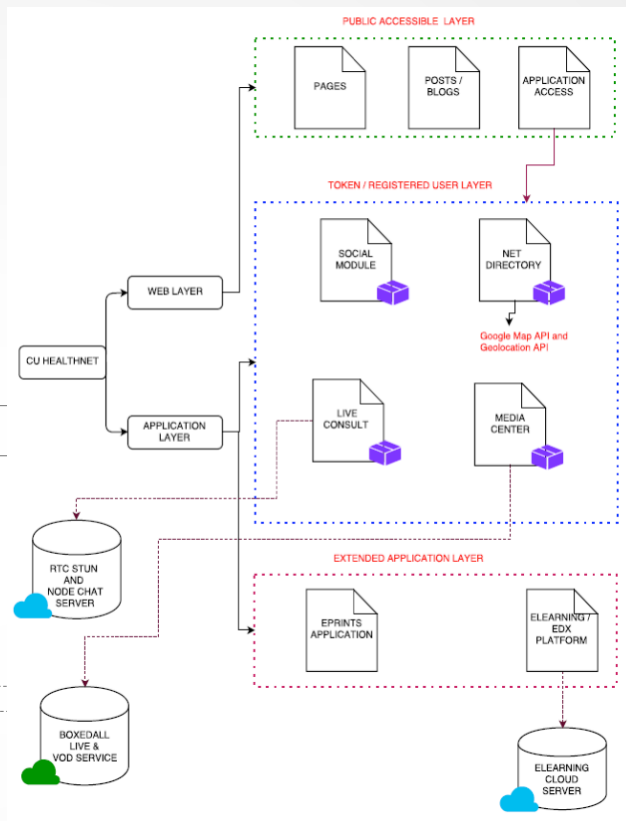


Figure 1. CU HEALTHNET Application Flow

Features

CU HEALTHNET design is mainly interactive and has been designed to allow potential users create a PROFILE, from which embedded features and services can be accessed. A desktop and mobile application adaptable over multiple platforms is currently being designed.

CU HEALTHNET is dependent on internet access (broadband penetration). Partnerships with mobile internet provider/s will be one of the important phases once the services have been tested over several population groups.

Expected Output

- Interactive hub on several health issues for users
- Health education and promotion tips for the users and visitors
- Prescription alerts for users
- Access to emergency services for users
- Live consultations for users
- Health news for users and visitors
- Knowledge gain through online course
- Source of health data and information for researchers and policymakers.

KPI Measurement: 2017 Expo

- Reduce waiting time and service delivery periods at Health Center by 40%
- Improve community awareness on health risks and disease outbreaks via text and multimedia messages
- Alert Health care provider with emergency conditions thereby improving health services by 40%
- Improve user reminders on immunization, medications and appointment with doctors by 70%
- Reduce mortality rate from diseases through early diagnosis by 30%

Conclusion

The CU HEALTHNET is, perhaps, the next big e-health intervention in Nigeria. Covenant University – the sponsor of this project, has championed several landmark research projects that have impacted the lives of many within her immediate environment and extended society. CU HEALTHNET is committed to improving health systems and service delivery in Nigeria and Africa through this specially designed online community. It is hoped that this project will receive the needed local and international support.