# DHIS2 Mobile App

Designing Technology for Resource Constrained Environments

HISP INDIA
OPEN SOURCE FOR PUBLIC HEALTH
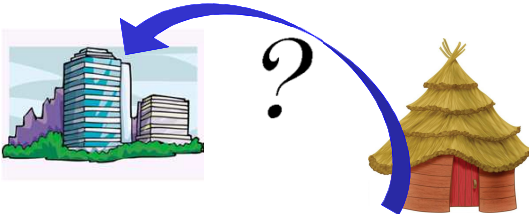
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## The Problem

Need to collect health information from remote areas.

### Challenges Today

Forms are filled in paper.
•Makes it difficult to automate the system.
•Makes finding data tedious.

Weak or no connectivity to internet for a wireless based system.

## Field Work

- Insight from Prof. Richard Anderson's trip to HISP India
- Skype conversation with Knut Starring
- Addition of cold chain inventory report into the DHIS2 platform
- Existing web browser solution for DHIS2 is not suited for remote area with limited connectivity.
- Change of priority: Health workers fill out forms once a month, from tallies kept in a journal. The first feature is to assist this monthly reporting.
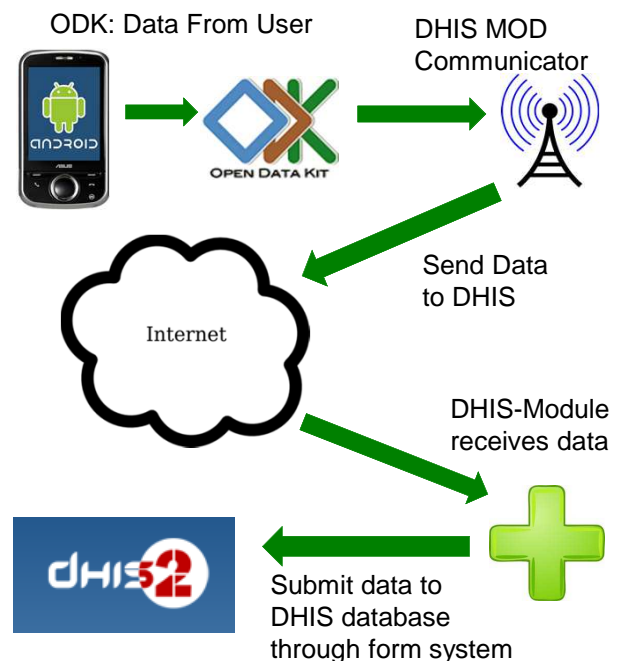
## Milestone Timeline

- DHIS2 Module (~week 3)
- Build end to end parts (~week 5)
- form conversion (~ week 6)
- Adding necessary functions to prototype (week 8)
- Testing & Feedback from users (week 8)
- Usability testing & improvements (week 9~10)
- Credential feature, Final revision (week 11)
- Documentation, Poster, Video (~week 12)

## Solution

Smartphone Application to a Database
•Easy to automate.
•Easy to find data
•Manage Connectivity Issues.

## Architecture

ODK: Data From User

OPEN DATA KIT

DHIS MOD Communicator

Send Data to DHIS

Internet

DHIS-Module receives data

dhis2

Submit data to DHIS database through form system

## Related Work

- From survey of data collecting/tracking apps on android, we found that ODK collect had many functionalities and features that we desired in the user interface. **We decided to rely on ODK as the front-end component.**
- Designs of existing inventory tracking Android apps, and many ODK-based projects encouraged us to think of **how multi-functionalities of an android phone could assist the reporting process**.
- We also learned from other ODK-based projects to be wary of **unforeseen obstacles**, such as facility environments and human mistakes. We will try to be sensitive to non-technical issues.

http://www.cs.washington.edu/education/courses/cse490d/12sp/