Integrating Mobile and GIS Technology into the ADDO Program

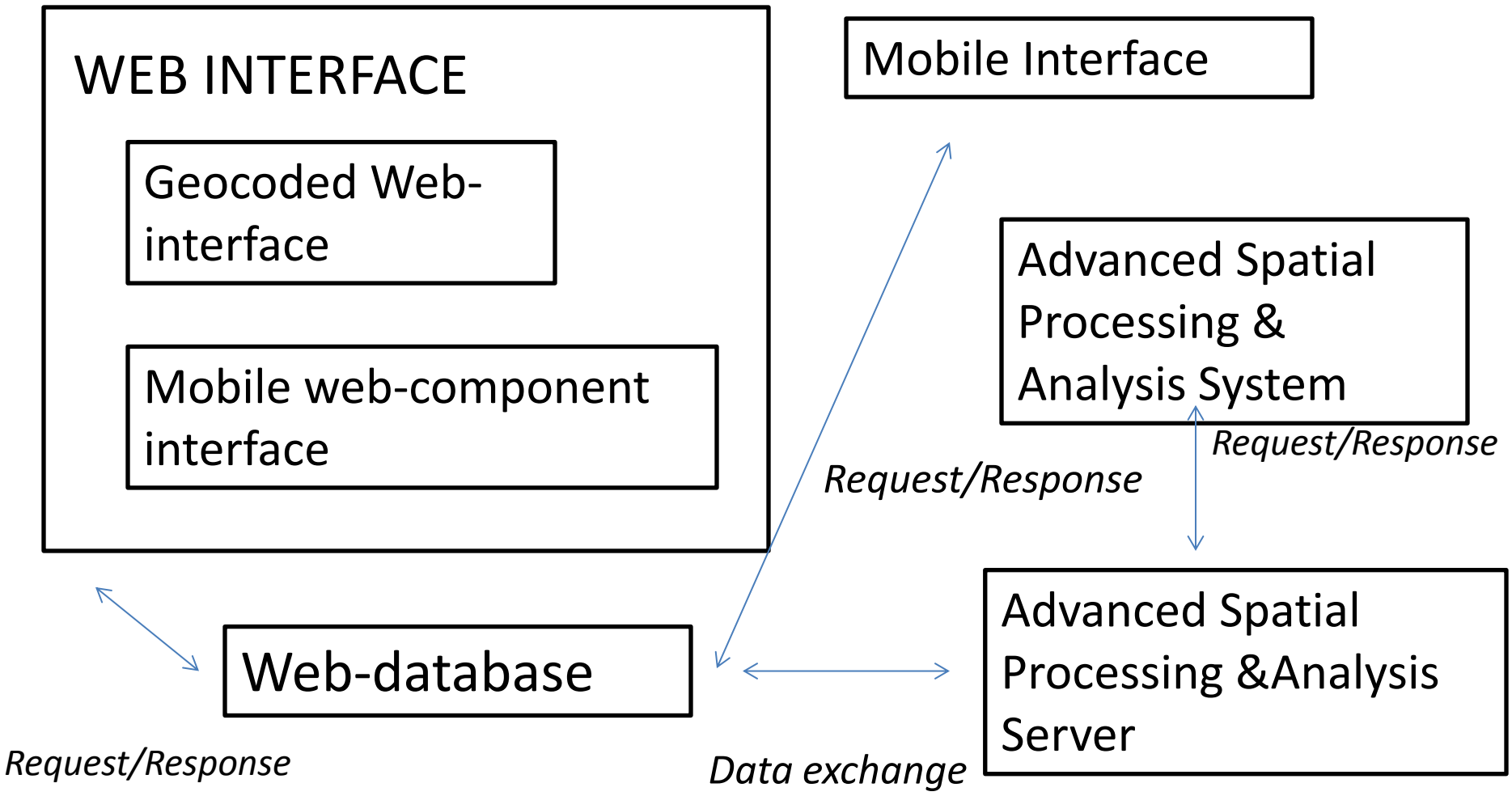
Stakeholders Meeting, Tanga

September 19, 2012

Approach to Group Work

- Reviewed contractor recommended options
- Added any missing options
- Prioritized options based on discussion
- Conceptualized system framework and architecture

Proposed Strategy



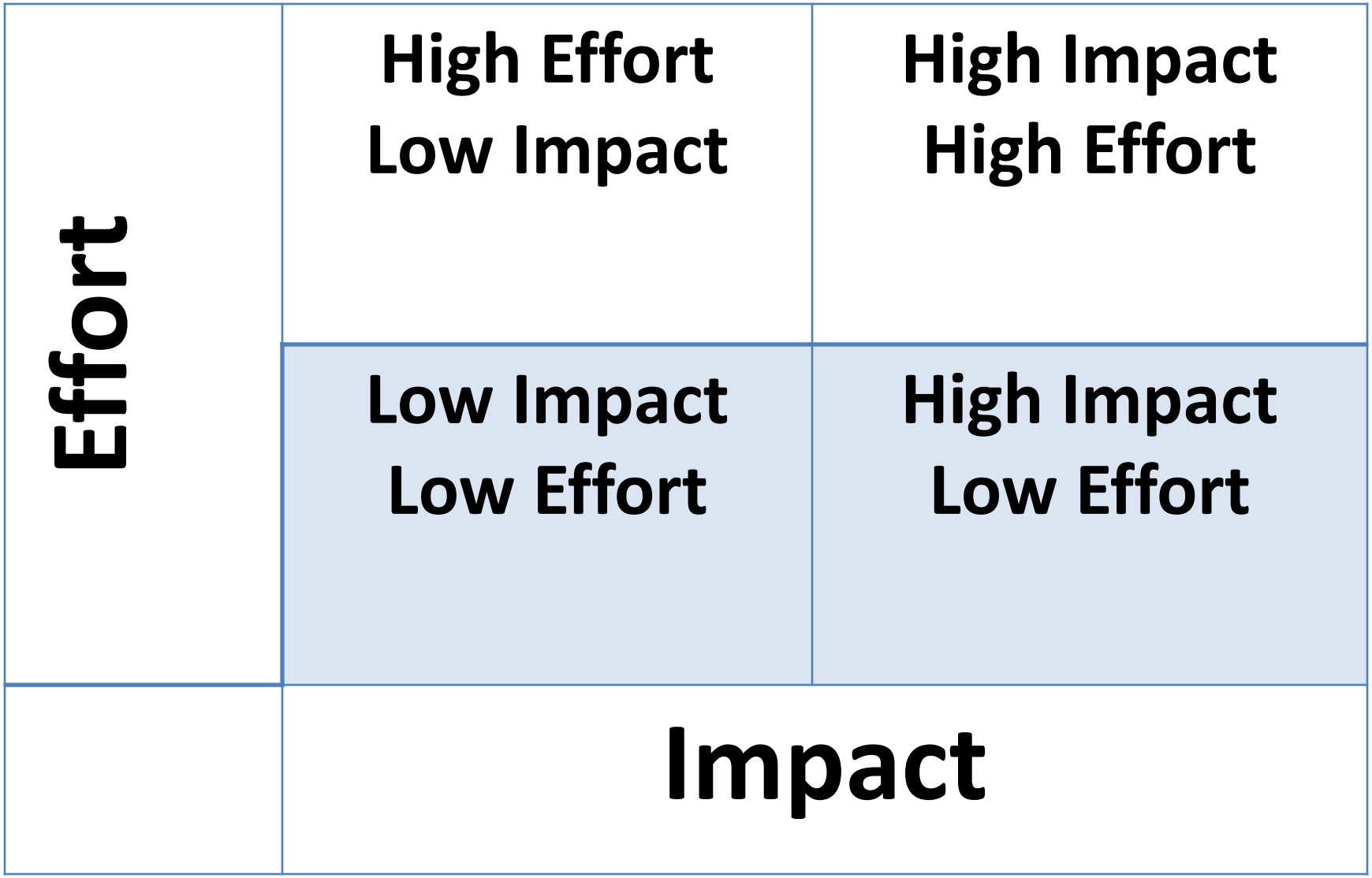
Mobile Interface

Regulatory Priority Components

1. License fee, Disbursement, and Registrations
2. Monthly reports from ADDOs
3. Regulatory Issues
4. Product Quality Identification and Reporting

ADDO Components

1. Monthly Reports from ADDOs
2. Product Stock, Availability & Price
3. Continued Dispenser Education
4. Product Quality Identification and Reporting
5. Training
6. Drug Ordering


High Effort
Low Impact
High Impact
High Effort
Low Impact
Low Effort
High Impact
Low Effort
Effort
Impact

Mobile Interface

Regulatory Priority Components

1. License fee, Disbursement, and Registrations
   - LOW EFFORT, HIGH IMPACT (usability = HIGH EFFORT, HIGH IMPACT)
2. Monthly reports from ADDOs
   - LOW EFFORT, HIGH IMPACT (usability = HIGH EFFORT, HIGH IMPACT)
3. Regulatory Issues
   - LOW EFFORT, HIGH IMPACT (usability = HIGH EFFORT, HIGH IMPACT)
4. Product Quality Identification and Reporting
   - HIGH EFFORT, HIGH IMPACT

Mobile Interface

ADDO Components

1. Monthly Reports from ADDOs
   - LOW EFFORT, HIGH IMPACT
     - (usability = HIGH EFFORT, HIGH IMPACT)
2. Product Stock, Availability & Price
   - HIGH EFFORT, HIGH IMPACT
3. Continued Dispenser Education
   - HIGH EFFORT, HIGH IMPACT
4. Product Quality Identification and Reporting
   - HIGH EFFORT, HIGH IMPACT
5. Training
   - LOW EFFORT, HIGH IMPACT
6. Drug Ordering
   - HIGH EFFORT, HIGH IMPACT

Mobile Web Component Interface

- Whatever is accessed by mobile phones, will be accessed on the web with additional functionality.

- System development:
  - LOW EFFORT, HIGH IMPACT
- Data collection and adjustment:
  - HIGH EFFORT, HIGH IMPACT

Geo-coded Web Interface

- System development:
  - LOW EFFORT, HIGH IMPACT
- Data collection and adjustment:
  - HIGH EFFORT, HIGH IMPACT

Steps in Setting up Geo-coded Web Interface

1. Identify information needed by regulatory bodies
   - Central & Lower levels
2. Develop indicators for decision making purposes
3. Decide on database outputs and reports
4. Define data collection maintenance procedure
5. Hire data manager
6. Determine what information & geocodes already exist
7. Decide modalities for new geo-coding (mobile v. GPS handheld)
8. Harmonize existing data with newly collected data
9. Determine access levels

Steps in Setting up Geo-coded Web Interface

NOTES:

- Single entry, multiple use across gov't institutions (PC + TFDA)
- Interoperability between PC + TFDA systems
- Interoperability between entire proposed system
- Server storage will be on cloud or in-house

Web-Database

- Storage center to handle all the request and response from the web and mobile interface
  - LOW EFFORT, HIGH IMPACT

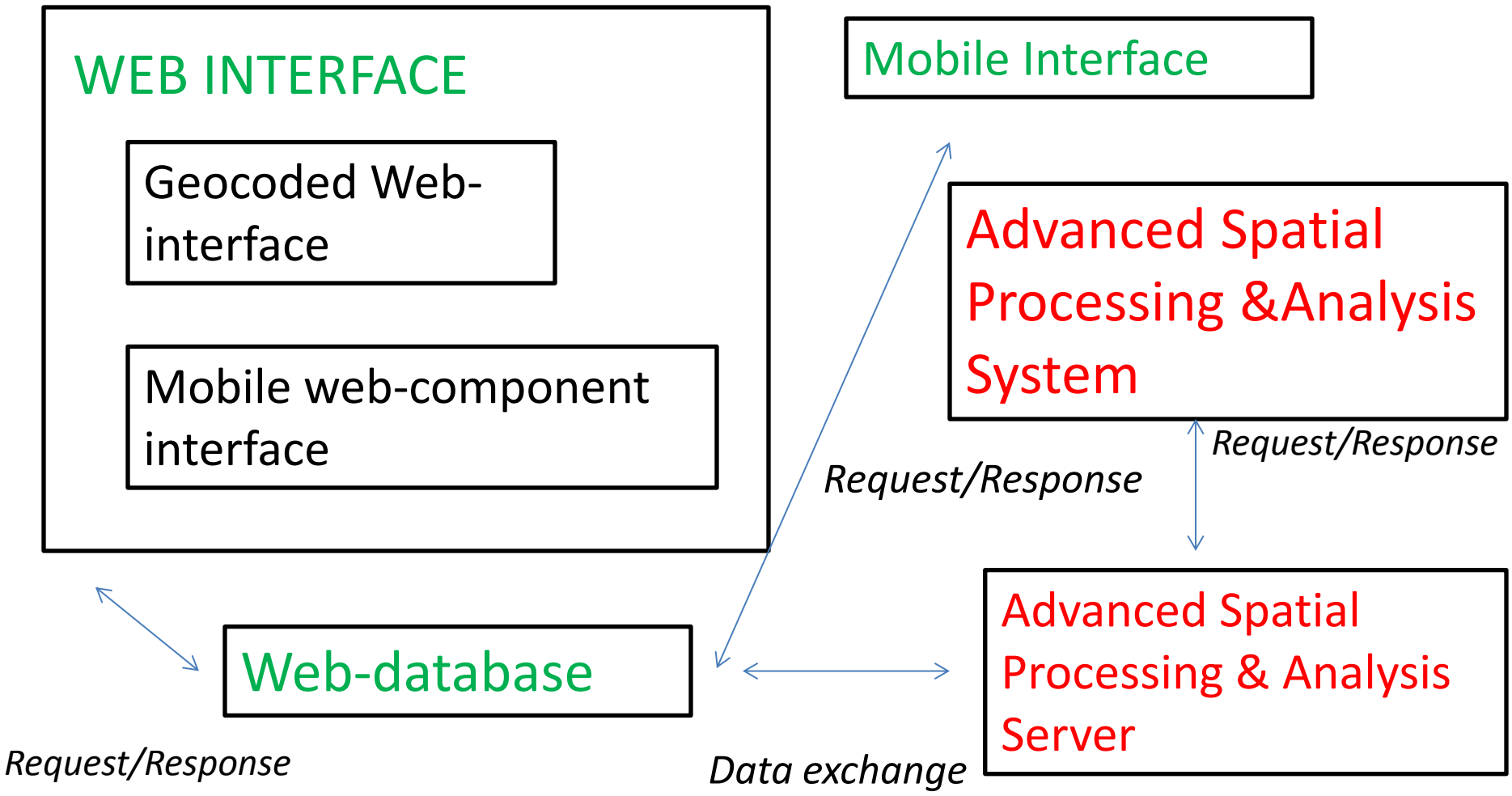
ADVANCED SPATIAL ANALYSIS SYTEM

- HIGH EFFORT, HIGH IMPACT

Notes:

- Separate and interoperable with web-database
- Geo-Network to determine what kind of information is needed by PC and then recommend what types of advanced spatial analysis will provide for those needs.
- Data processing and /or analysis and web-visualization(Geocoded Web-interface) should go together

Proposed Strategy



Answers to Group Questions

Q: What information is essential to include in a PC database for regulatory and health monitoring purposes?

- From preliminary discussions with PC, have suggested:
  - Distance between ADDOs/Pharmacies/health facilities
  - Population of ADDO catchment areas
  - Number of licensed ADDOs
  - Location of ADDOs
  - ADDO payment status
  - Status of shop inspection (time since last inspection)
- Will find out more information needed upon with further discussions with PC

Answers to Group Questions

Q: What is the minimum GIS system capability that should be considered by PC to develop?

- First step: Linking ADDOs with geo-coordinates so that simple visualization and analysis is possible.
- After a further needs assessment can upgrade to more spatial analysis, as needed.

Answers to Group Questions

Q: How can PC develop and collaborate with NBS? How can NBS provide on-going technical support for the GIS system at PC?

- NBS is willing to provide data and training to PC on how to use the database.
- General answer: NBS and PC are both gov't institutions, so NBS can provide PC with any requested data, for a small fee.
- Requests for data can be turned around in 1-2 days (short timeline).
- Need to formalize relationship between NBS and PC as part of the system and to determine exactly what support NBS will provide.
- More information will come from the GeoNetwork report.

THANK YOU TO GROUP MEMBERS!

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