United Villages – Mobile Interface

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Elevator Pitch

"United Villages – M-commerce Interface **is a** solution **that** empowers the rural poor to make purchases using a mobile phone that **unlike** the legacy system that involves many human intermediaries, is a cost-effective and user-friendly system"

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Present – DakNet

DakNet Service Providers (DSPs)
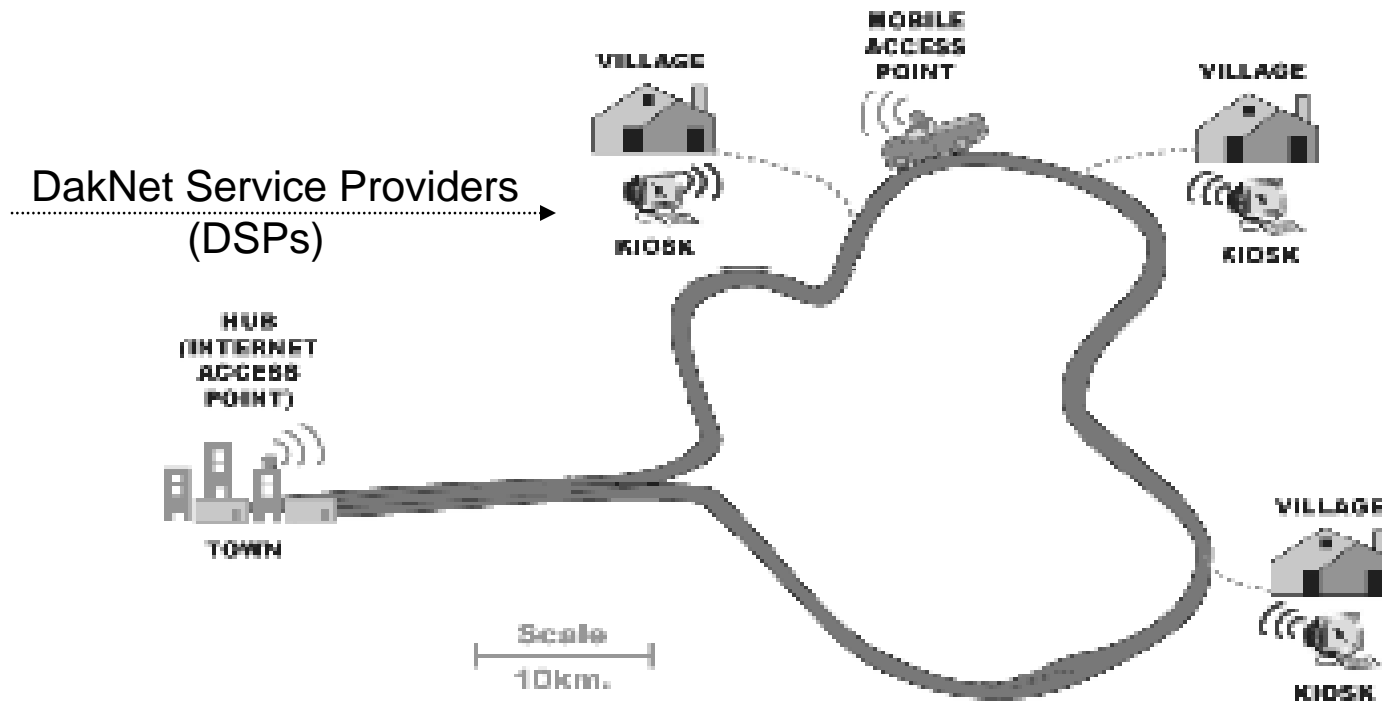
"Glue that sticks together those areas that have mobile connectivity and those that don't "

- CEO (UV)

Courtesy of Amir Hasson and Richard Fletcher (First Mile Solutions). Used with permission.

DakNet – Mobile Commerce

- "Bandhu" (salesman) is the human interface to village customers. They go door to door with a Catalog (items).

- DSPs compile the orders from Bandhus and any directly placed bulk orders.

- Orders are relayed to District Office using a web-interface via DakNet and recently through phone calls and SMS.

- Goods are delivered to village kiosks where customers later pick them up.

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Exuberance

- UV has an order-fulfillment system!
    - Which is rare in the developing world.
- We have an opportunity to develop a system that would impact many rural communities.

Problem
Background

- Legacy software system – web-interface, spreadsheets.
- Multiple levels of human interfaces, Villagers to Bandhu, Bandhu to DSPs.
    - Inefficient
    - Error-Prone – order-taking, SMS errors
    - Expensive - Voice calls are expensive to fix the many errors
- Delay in delivery, loss to customers and company.
- Need a robust system that can be scaled.

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Proposal

- Understand user needs on the ground and analyze them to develop system requirements.

- Design and Develop a user-friendly mobile user interface that would enable "Bandhus" and villagers to browse and order goods using mobile phones.

- Do thorough business analysis of the viability of such a system and provide recommendations to prove long term sustainability.

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Related Work

- **Mobile money transferring systems**
  - M-PESA in Kenya
  - Globe in Philippines
  - Wizzit in South Africa
- **User interfaces for rural poor**
  - SMS and Paper
  - J2ME – Good for local error-handling
  - Targeting the illiterate – pictures/cartoons, videos, numbers
- **We couldn't find a mobile order-placement system for physical goods in developing world**

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Possible Solutions

- ## SMS + Catalog
  - Pros – LCD technology, Existing Modality
  - Cons – Expensive Catalog and non-local error handling

- ## Interactive voice response (IVR)
  - Pros – Anyone can use it, targets illiterate
  - Cons – Implementation/Language issues, signal strength requirement

- ## J2ME apps that includes catalog
  - Pros – local error handling, electronic catalog, richer UI
  - Cons – Portability, Application installation & updates, phone capabilities

- ## Smartphone viability
  - Pros – Single HW platform, rich UI, feature rich (GPS, WiFi)
  - Cons – Expensive, Scalability - intermediary

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