Mr. Kafui A. Prebbie

oneVillage Foundation, Ghana

Profile of Project Area

- We serve a **coastal community** in Ghana called Winneba
- Population over **50,000** made up of Educational Instns. & Govt. Agencies
  - University of Education, Winneba
  - Community Health & Police Training Schools
  - Senior High Schools & Junior High Schools
  - Municipal Assembly, Police, Prisons, Health, Education Directorates
- **Power source:** Stable and from the national hydro source
- **ICTs:** GSM, Analogue Phone, Radio stations, TV, Fax, etc.
- **Income Levels:** Low income levels
- **Partner:** Arrow Network Systems - www.arrownetworks.net

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Site Selection

- **Population's ICT Awareness:** Largely literate with growing interest in knowledge in ICTs especially University Community
- **ICT infrastructures:** GSM, Analogue Phone, TV, WiFi, WiMax
- **Needs assessment:** Not thoroughly done and documented
    - Our free wireless broadcast has attracted a lot of people and statistics of visitors on our log shows increasing demand
- **The Roles of Various Local Actors:**
    - The Municipal Assembly, the Community Health Nurses, Hotels and Internet Cafe are connected to our network for Internet access at a fee. This shows conscious effort to increase access by stakeholders
    - WODiV is run as a with a social enterprise model
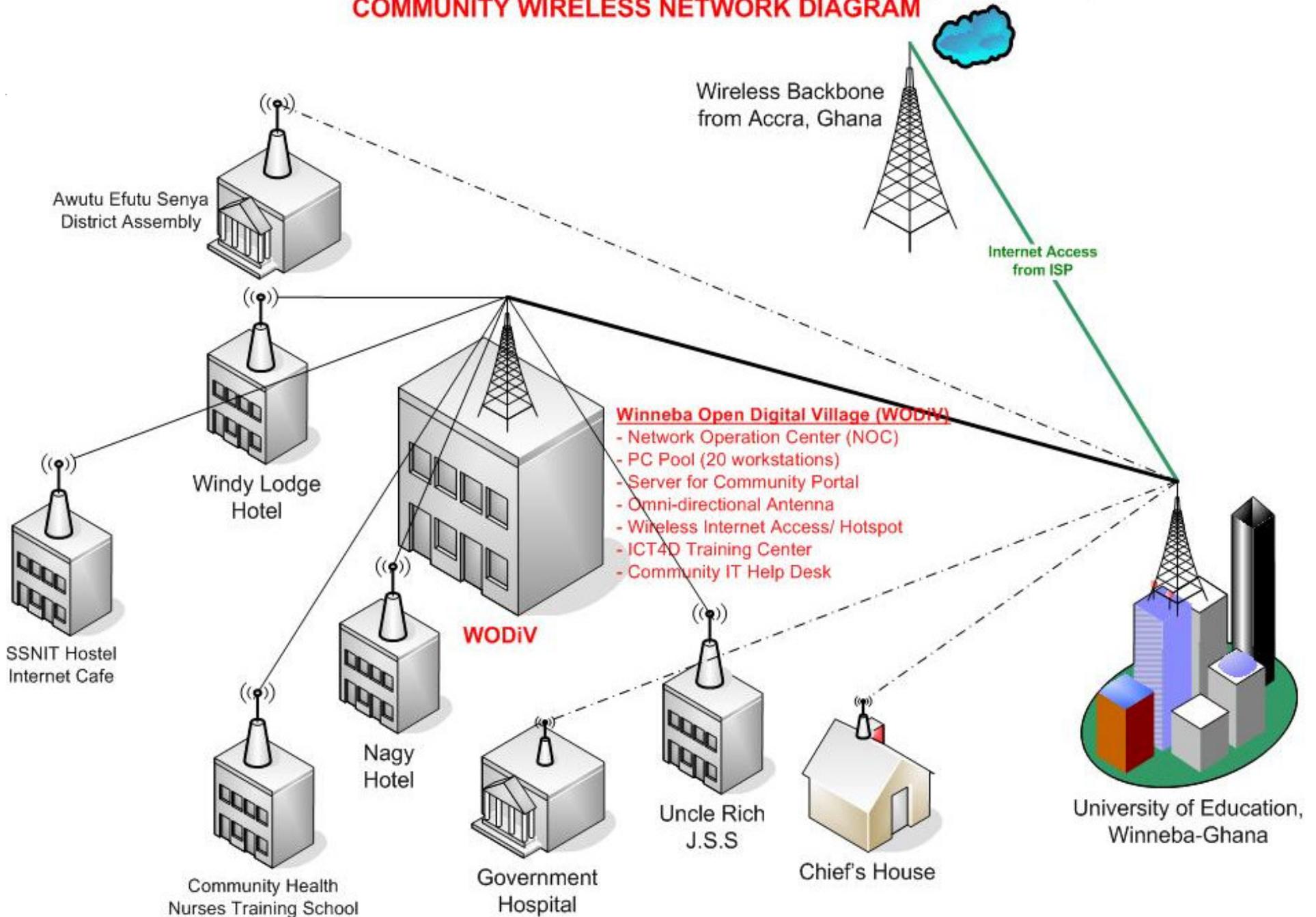
Description of Project Network

- **The Technology Level**
  - **Wireless network: WiFi Point-to-point, Mesh**
  - **Power: 100 Ah Battery Back up**
- **Human Resource and Capacity**
  - **Highly skilled staff with IT Diplomas and First Degrees**
- **Financial**
  - **Grants and payments from subscribers: COL, DIIRWB**
- **Regulatory environment**
  - **WiFi is legal**
- **Wireless network diagram:** Next Page

WINNEBA OPEN DIGITAL VILLAGE (WODiV)

COMMUNITY WIRELESS NETWORK DIAGRAM

Wireless Backbone
from Accra, Ghana

Internet Access
from ISP

Awutu Efutu Senya
District Assembly

Winneba Open Digital Village (WODiV)
- Network Operation Center (NOC)
- PC Pool (20 workstations)
- Server for Community Portal
- Omni-directional Antenna
- Wireless Internet Access/ Hotspot
- ICT4D Training Center
- Community IT Help Desk

Windy Lodge
Hotel

WODiV

SSNIT Hostel
Internet Cafe

Nagy
Hotel

Uncle Rich
J.S.S

Chief's House

University of Education,
Winneba-Ghana

Community Health
Nurses Training School

Government
Hospital

Business Models

- **Number of clients, running costs, income**
  - **Clients:** Four (4) clients pay monthly
  - **Hot Spot:** Flat daily user fees & Internet Café at WODiV
  - **Running Cost:** USD 850 approx. monthly
  - **Income:** USD above USD 1000 monthly

- **Do you recover costs?**
  - Yes

Business Models – Price lists for additional I T Services

THE WINNEBA OPEN DIGITAL VILLAGE (WODiV)

REPAIRS AND MAINTENANCE SERVICES

When it comes to repairs and maintenance of your Laptop and Computers, lean on WODiV for Quality Service and affordable Rate.
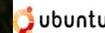
PRICE LIST

Desktop Diagnostic Fee:GH¢3.00   Laptop Diagnostic Fee:GH¢5.00

SOFTWARE INSTALLATION

Windows	Windows OS:GH¢5.00
ubuntu	Linux OS:GH¢5.00

Antivirus Installation: GH¢5.00 each

Office Package: GH¢5.00 each

Multimedia Software Installation: GH¢5.00 each

Media Players: GH¢2.00 each

Other Available Softwares

Internet Explorer 7   Mavis Beacon Teaches Typing

CorelDraw

Other Services

* Periodic Servicing of computers for offices and organisations.
* Computer Network Installation & maintenance.
* Internet Installation & Subscription.
* Data Management.
* ICT Training for organisations & individuals.

Tel: 0432-20270 Fax: 0432-20900 Email: admin-ghana@onevillagefoundation.org

Challenges and Lessons Learned

- **Bandwidth Control & Management**
  - Microtik Software for WiFi & Open Access for Mesh Hotspot

- **Wired Network Billing**
  - Cafezee Software

- **Network Expansion**
  - Limited Internet bandwidth & more hotspots with billing software.

- **Challenges**
  - Only 1Meg shared bandwidth from ISP with increasing demand
  - Open Source Billing software for wired and wireless/mesh
  - Establishing a more robust network security

Way Forward

- **Phase 1:** Completed – 4 institutions with 1 hotspot

- **Phase 2:** Expanding the current network to cover the whole Winneba

- **Phase 3:** Set up a national network of Ghanaian Universities Project for the development of Digital Educational Content: GhARNet

- **Phase 4:** West African Sub-regional Gigabit network of NRENs called the Africa High Speed E-Content and Digital Repositories (AHEAD) Project.
  - Consortium being created; new members welcome

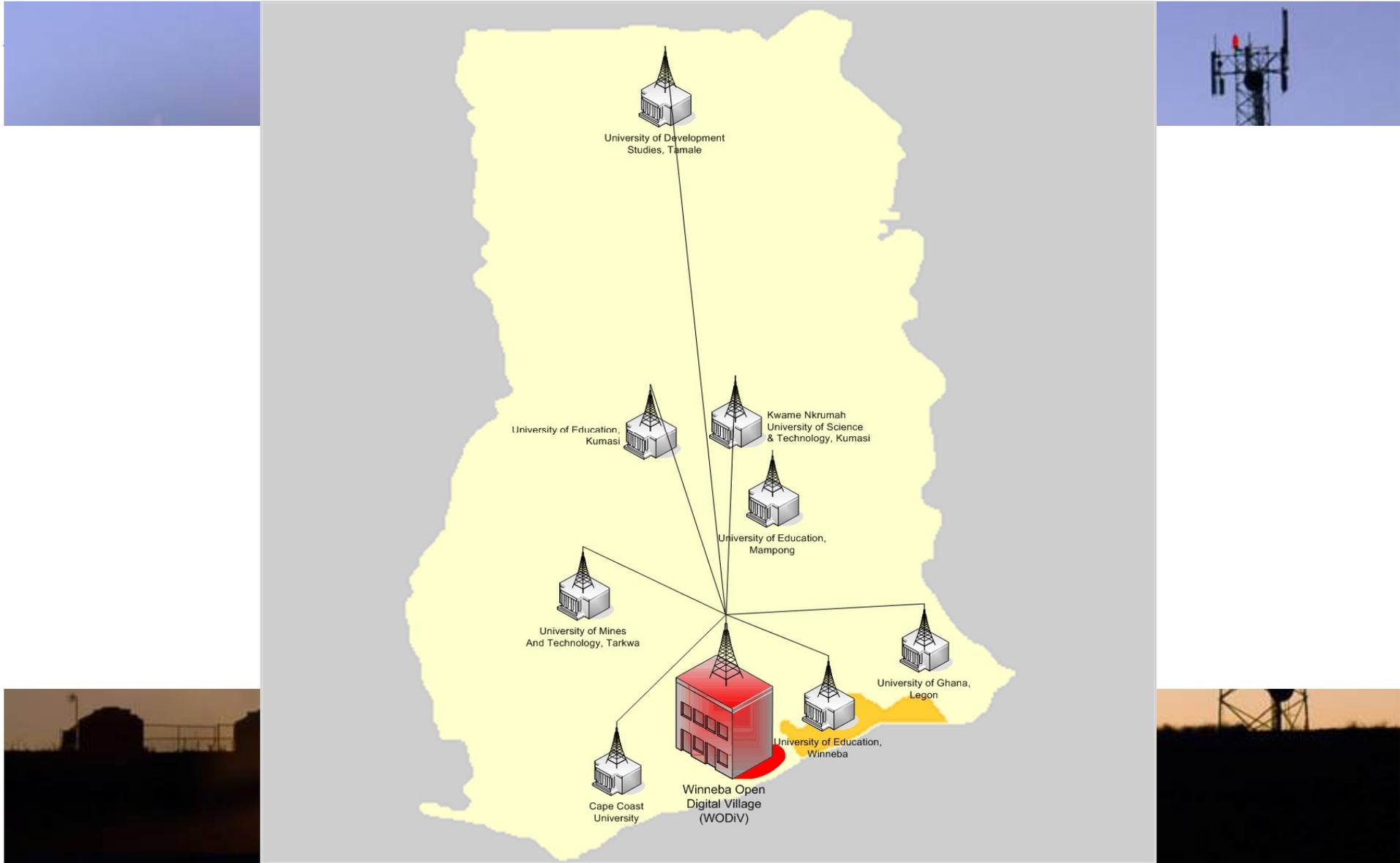onevillagefoundation.org | opendigitalvillage.org

African High Speed
E-Content and Digital Repositories Network (AHEAD)

Ghana National Research Network (GhaRNet)
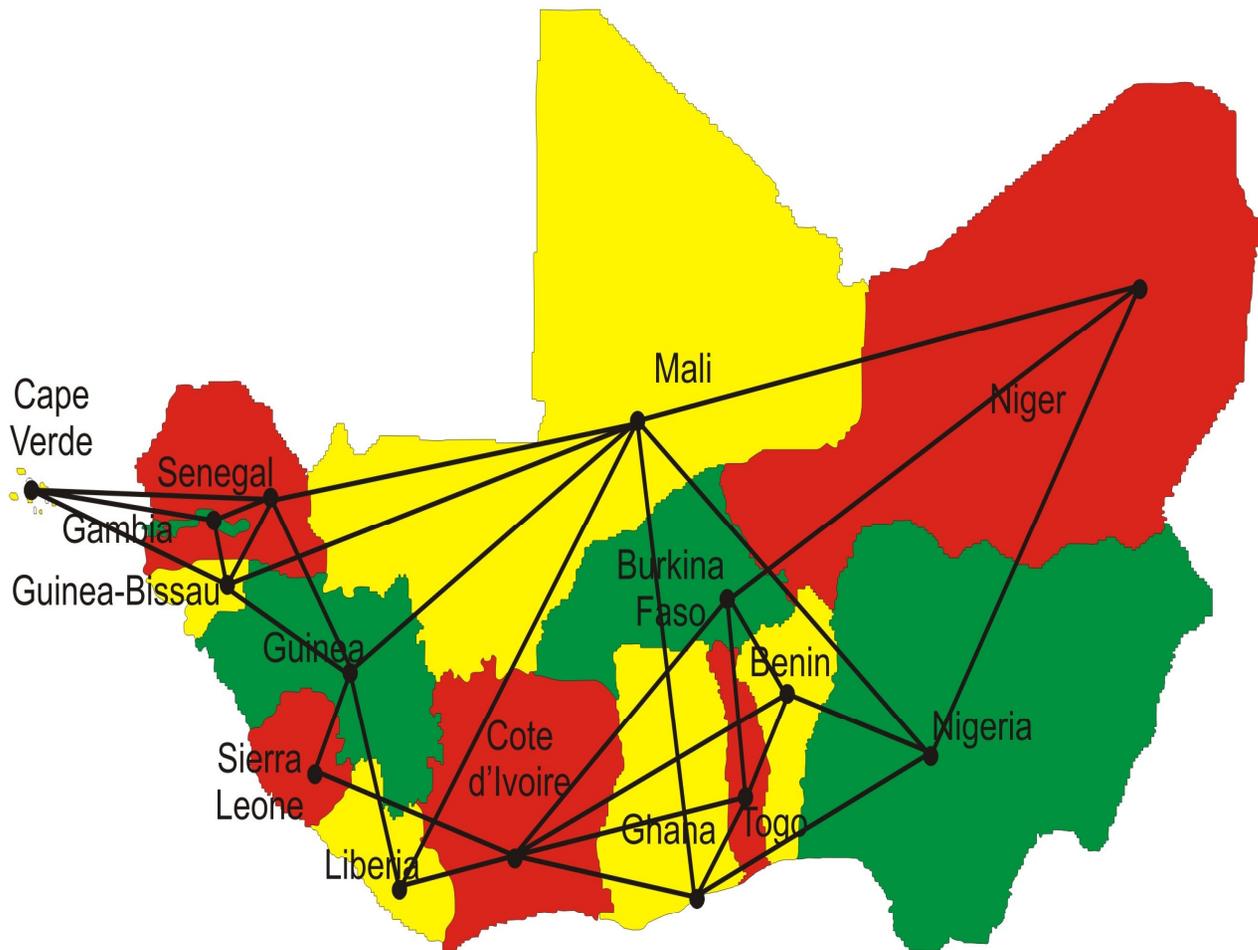## &
Multiple National Research Networks

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Way Forward: Phase 3 - AHEAD, Ghana NRENs Gigabit Network

University of Development
Studies, Tamale

University of Education,
Kumasi

Kwame Nkrumah
University of Science
& Technology, Kumasi

University of Education,
Mampong

University of Mines
And Technology, Tarkwa

University of Ghana,
Legon

University of Education,
Winneba

Winneba Open
Digital Village
(WODiV)

Cape Coast
University

Way Forward: Phase 4 – AHEAD, Multiple NRENs Gigabit Network

What can I say to Meraka Institute, IDRC and You?

Thank You

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