MVP “Village Network”
Ruhiira, Uganda

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Challenges

No existing Internet connectivity

Nearest Internet at MVP Office 35KM away. Connection costs $1,000/month for 128K!

Limited / Spotty cell phone coverage made calling between sites difficult. Cell phone calls also expensive.

Lack of reliable power
Inveneo Communications System - Network

- Satellite, Cellular, Broadband or PSTN Services access to Internet and Telephony
- Outside Communications
- Between Village Communications
- Inveneo Hub Station
- Inveneo Relay Station
- Inveneo Computing or Communications Stations in Offices, Clinics, Churches, Schools
- Regional Village
- Rural Villages
- Office
- Church
- Clinic
- School
Cheap + reliable

802.11 2.4GHZ

50KM+ with line of site

Asterisk - open source

IP PBX System
Low Power Computers

18W with screen

6x Power Savings vs 150W PC

Native 12V

Resistant to heat and dust!

Low cost $469

Paired with Low Power Server (30W)
## Standard vs Low Power PC

<table>
<thead>
<tr>
<th></th>
<th>1 Days</th>
<th>30 Days</th>
<th>365 Days</th>
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</thead>
<tbody>
<tr>
<td><strong>Standard PC (170W)</strong></td>
<td>$0.82</td>
<td>$24.60</td>
<td>$299.30</td>
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<tr>
<td><strong>Inveneo Ion (20W)</strong></td>
<td>$0.10</td>
<td>$3.00</td>
<td>$36.50</td>
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</tbody>
</table>

Assumptions: $0.60 kW
8 hours usage per day
Capacity
Features

Many institutions linked via wifi to form bandwidth village intranet

Shared Internet connectivity - access to outside information

VOIP - Free telephone calls between sites

Village Website / Knowledge Management

Value in local network
Ruhiira, Uganda

Health: 5 clinics connected 2 computers each + basic lighting for observation room

Education: 3 primary schools with 5 computers each + lighting

Community Center: 5 computers in computer room, 2 in Village Bank, 1 in Radio

Commodity Store: One computer connected to commodity exchange in Kampala

Cluster Office: 2 computers + network servers

Internet Relay to Mbarara

Radio tower relay + 10 - 10M Masts