Go Rural – Community Coverage
Affordable connectivity for rural villages
the Village Connection approach

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Rural coverage is still an unlocked potential

• Close to 3 billion people are living in rural areas
• In Africa about 70% and in Asia 60% of the population live in villages*

• Characteristics of a rural subscriber
  – Income less than USD 3 per day
  – Irregular income, money is not saved
  – Brand-conscious

• Operator challenges in rural markets
  – Covering large low density areas with traditional methods may be too costly
  – Power availability and maintenance
  – Backhauling costs
  – Cost of subscriber management

* "Urban and Rural Areas 2003", Population Division, UN.
Key Requirements of a Village Connection Solution

• Based on GSM technology & handsets
  – Global economies of scale
  – Standard interconnect rules
  – One global solution, not just a quick package
• Local switching for community access
  – Reduce transmission costs
  – Standard Mobile calls billing outside the village
• Cost-effective IP transport
  – Reduced bandwidth, hence cost
  – Enables Local operation of village network
• Low power Base station
  – Enables alternative energy options (e.g. solar)
Community model benefits all

- **Operator**
  - Capture the rural market potential
  - Savings in OPEX and CAPEX enables the profitable business case in rural villages
  - Larger footprint, larger subscriber base

- **Entrepreneur**
  - Possibility to become a business owner
  - Entrepreneur contributes to the village community

- **Villager**
  - Voice/SMS connectivity
  - Privacy and 24/7 connectivity to the world from their home
  - Improved economic efficiency and well-being
Community business model

Model is designed to be self-sustaining, but financial input maybe needed for the village entrepreneur (bank-loan, microfinance-loan)
Proposed share of responsibility

Village Entrepreneur

- Customer care for village subscribers
  - Subscriber acquisition
  - Subscriber provisioning
  - SIM card distribution
  - Sale/lease of terminals
  - Customer care

- O&M
  - Operational responsibility within the village
  - Maintenance of the village-based equipment

GSM Operator

- Branding
- Supplier relationship
- Village technical support
- Initial training for the entrepreneur
Re-defining a Mobile Site:

- Air Con
- Civil Works
- Base station
- Power & back-up
- Foundations
- Shelter
- Tower
- Antennas
- Fence & gate
- Feeders
- Transmission

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Village Connection Site - slash the costs

All you need for providing GSM Network for the village:

- PC
- Base Station
- Power system
- Antenna & Transmission
- Light Civil Works
- Chair
IP is the Key enabler for Village Connection

- Local calls & Autonomous operation
- Programs such as RICS are vital to create these links
- Connected back to a core network – Operator or region wide?
Pilots successful in India

- Village Connection solution has been deployed and tested in India since 2005
- Finding a village entrepreneur was easily arranged
- With initial training hosts operate village networks smoothly
- Village subscribers generate a lot of traffic:
  - In one pilot case 400 calls/day were made by 40 users*:
- Lots of positive interest and attention amongst village residents and from neighboring villagers

* calls were free of charge within the village for pilot purposes
Next Steps for the Pacific – the Ministerial Challenge

• Support community trials for local community call & SMS
  – Joint ITU/Nokia Siemens Networks Partnership & other initiatives
  – Come try the pilot demonstration here today – Phones & Village connection

• Enable Regional Service provider(s) – A Pacific Vision
  – Service provided across the Pacific to create the drive.
  – With/on behalf of operator or as an alternative.

• Enable the regulatory environment.
  – Consider as a solution for Universal Service Obligation (USO) areas & funding.
  – GSM Licenses need to be made available for USO Services
  – Support a regional service approach

• IP enable the backhaul network
  – Tie in the rollout with extending programs such as RICS
Summary

• Nokia Siemens Networks Village Connection approach leads the way towards affordable rural coverage
• A new community-based business model is enabled by
  – Local call completion and switching
  – Local or regional subscriber provisioning
  – Local or regional customer care and subscriber acquisition
• Village Connection enabled low power sites
  – Solar & wind now an option with the current generation of equipment
  – Autonomous sites with alternative power options
• Add innovative business models to drive the uptake

Nokia Siemens Networks Village Connection enables rural village coverage: Let’s make it happen!