

# Dili Village Telco

- Life for a Developing World Geek
- Dili Village Telco Goals
- What Went Right
- What Went Wrong
- End User Response
- Patience
- Future

# Developing World Geek 1

- Timor was part of Indonesia until 1999
- I Studied IT in Indonesia
- Involved in Timorese independence movement in 1996
- Jumped in Polish embassy to avoid arrest
- Spent 4 years in Portugal (political asylum)
- The whole country of Timor Leste was REBOOTED in 1999

# Developing World Geek 2

- I want to help my country develop
- No one knows how to use computer
- No networking or IT knowledge
- So I decided to work for NGO Forum (Fongtil)
- Fongtil organisation helps other NGOs in Timor with IT, VOIP, training, PC repair
- I am motivated to help my country

# Developing World Geek 3

- Bandwidth, Virus
- Power lost for hours each day
- Local Expertise, Linux command line
- Relative Cost
- Shipping (mail service, couriers)
- What happens when the Malae goes home?
- Making anything work in the developing world is very difficult

# Dili Village Telco - The Problem

- In many countries mobile phone calls are very expensive
- In Timor Leste, US\$0.25 cents/minute
- Average Income \$1.52/day
- A phone call should be a human right, not a privilege of the rich

# What is a Village Telco

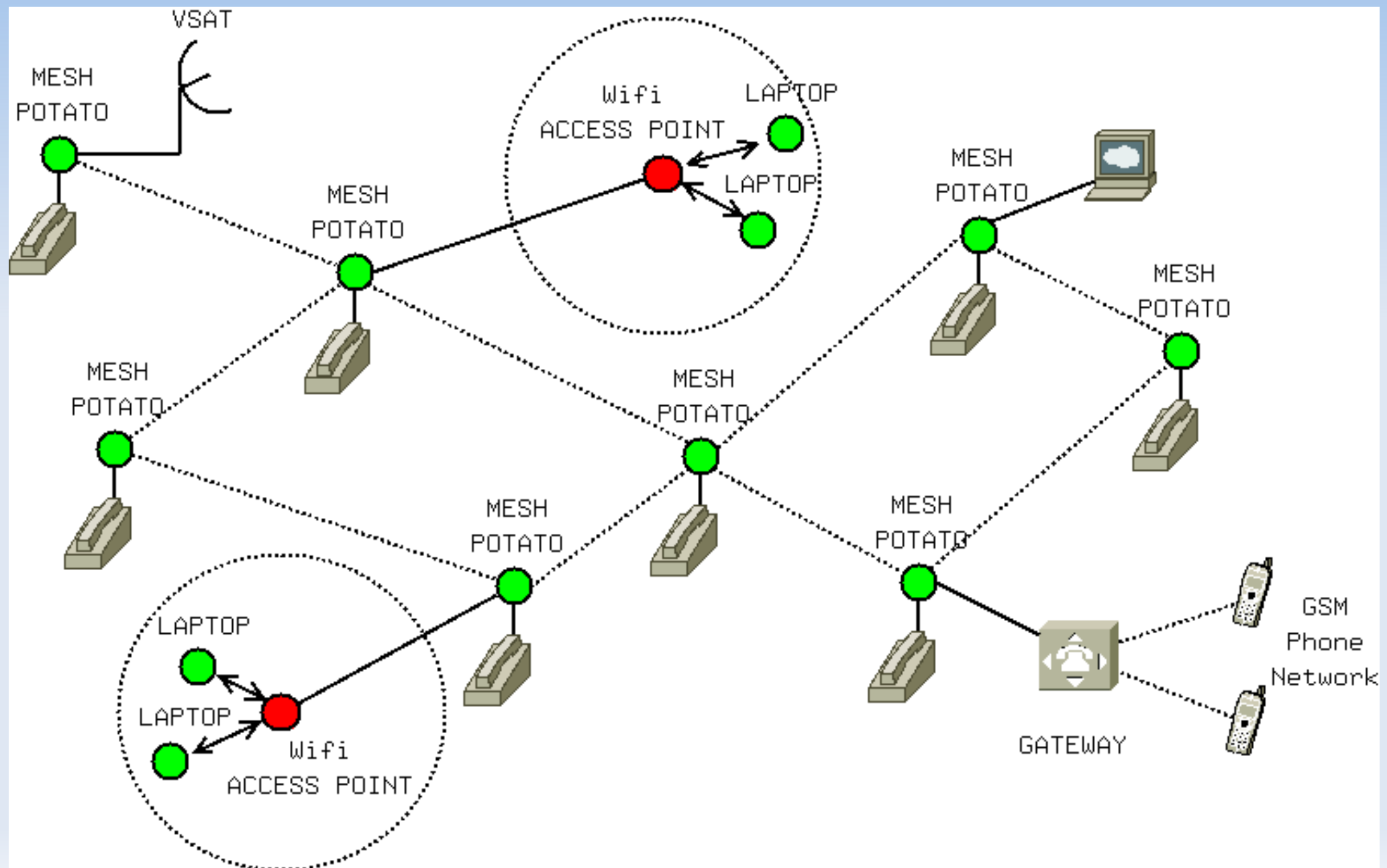


# Dili Village Telco - Goals

## Goals

- Train Timorese to install a Village Telco network
- Install 100 Mesh Potatoes
- Build a local call telephone network
- Build an IP Backbone for local IP traffic

# Dili Village Telco Network





# Project Plan

- Fongtil and Rowetel partnership
- Funded by the Internet Society Innovation Fund (ISIF)
- March 2010 to March 2011
- Rowetel provides training and equipment
- Fongtil and Timorese people perform installation
- Fongtil and Timorese people run and maintain network

# Risks

- What can go wrong?
- What happens when the Malae goes home?
- Train Timorese to fix problems
- Focus on keeping network running
- Train many people, not just one expert
- Make it easy to set up
- How can we make it more reliable?









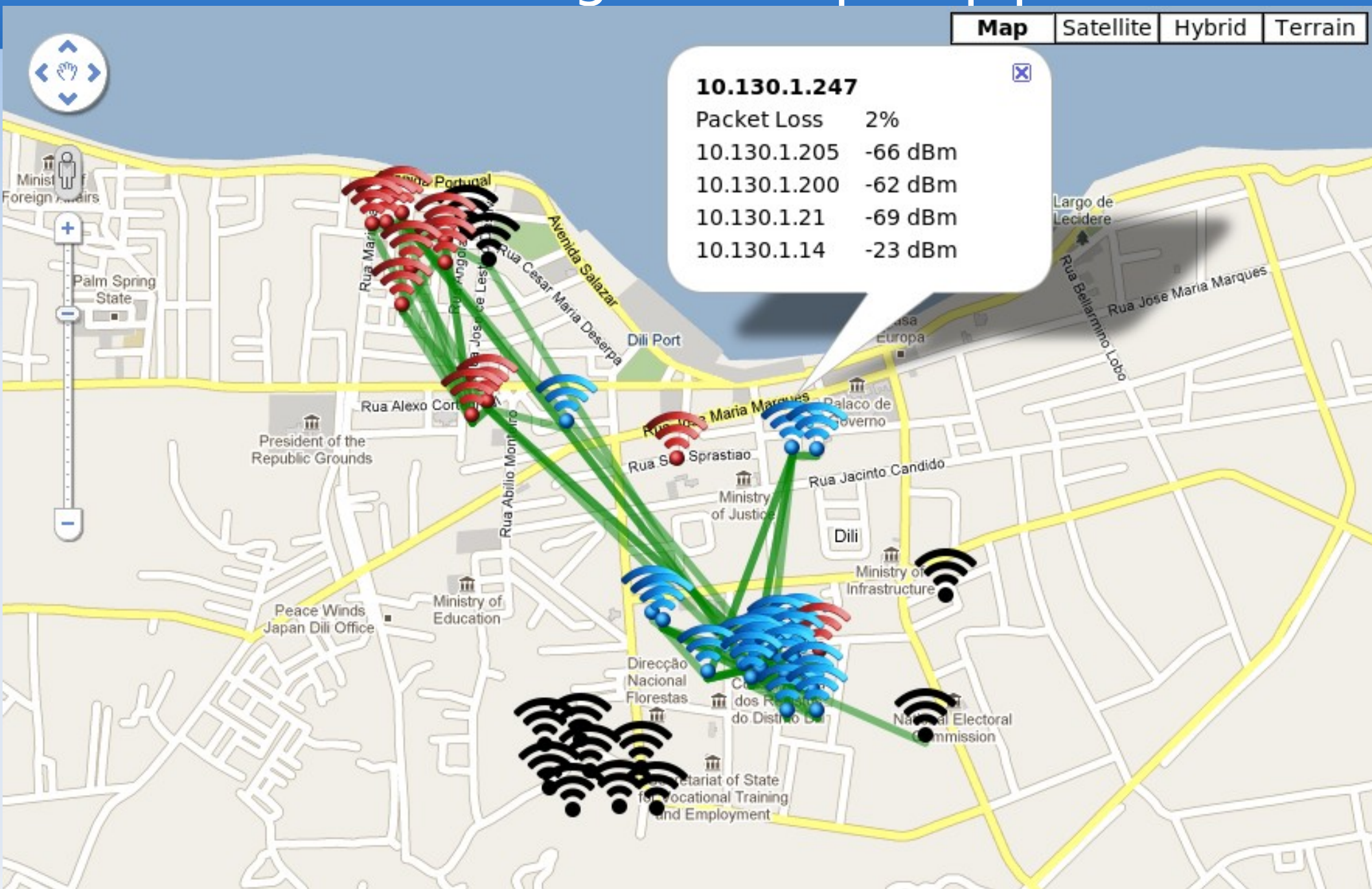








# Dilimesh Google Map App



# Outcomes

- 70 nodes deployed, demand for more
- Very easy to set up
- Some problems with 20% of mesh links
- Timorese training Timorese
- A phone call can save a 3 hour walk
- Connecting rural Clinics, Police, Ambulance, NGOs, University IT support
- Really helping people every day!
- Land line training



# What Worked

- Ease of Set up
- Training
- Timorese training Timorese
- Due to popular demand - expansion to two other towns (Baucau and Ermera)
- End users very, very happy
- Strong demand for expansion
- You really can make phone calls.....

# What went Wrong

- Nasty Interference in Dili
- Usual schedule slips and staff movements
- Ease of use meme breaks down in some cases and we are back on the command line
- Reliance on 3<sup>rd</sup> party hardware
- Local calls means no business model

# Surprises

- How bad Wifi Interference can be
- Killer app is VOIP for local calls
- Value in even partial functionality
- Each phone call is like a valuable gift
- Ease of installation, no 1<sup>st</sup> world guy
- Very popular project with Timorese geeks
- Local demand very strong

# Patience

- Different to the 1st world
- Imagine your power going off for several hours a day
- Usefulness in even partial functionality
- 1/5 tech projects actually work
- Its OK if it takes a few more months
- as long as WE know how.....

# Future

- Lemi and team will continue to expand in 2011
- Improve long distance links
- Work on business model
- Timorese now spending own valuable \$ now grant money has finished
- In ICT for Development it doesn't get any better than that.....

# Thanks

- ISIF and ISOC grants
- Atcom, who made a special batch of Mesh Potatoes
- Shuttleworth Foundation, who supported the Village Telco project
- Village Telco community
- <http://dili.villagetelco.org>