



# Extending R&E networks in Malawi

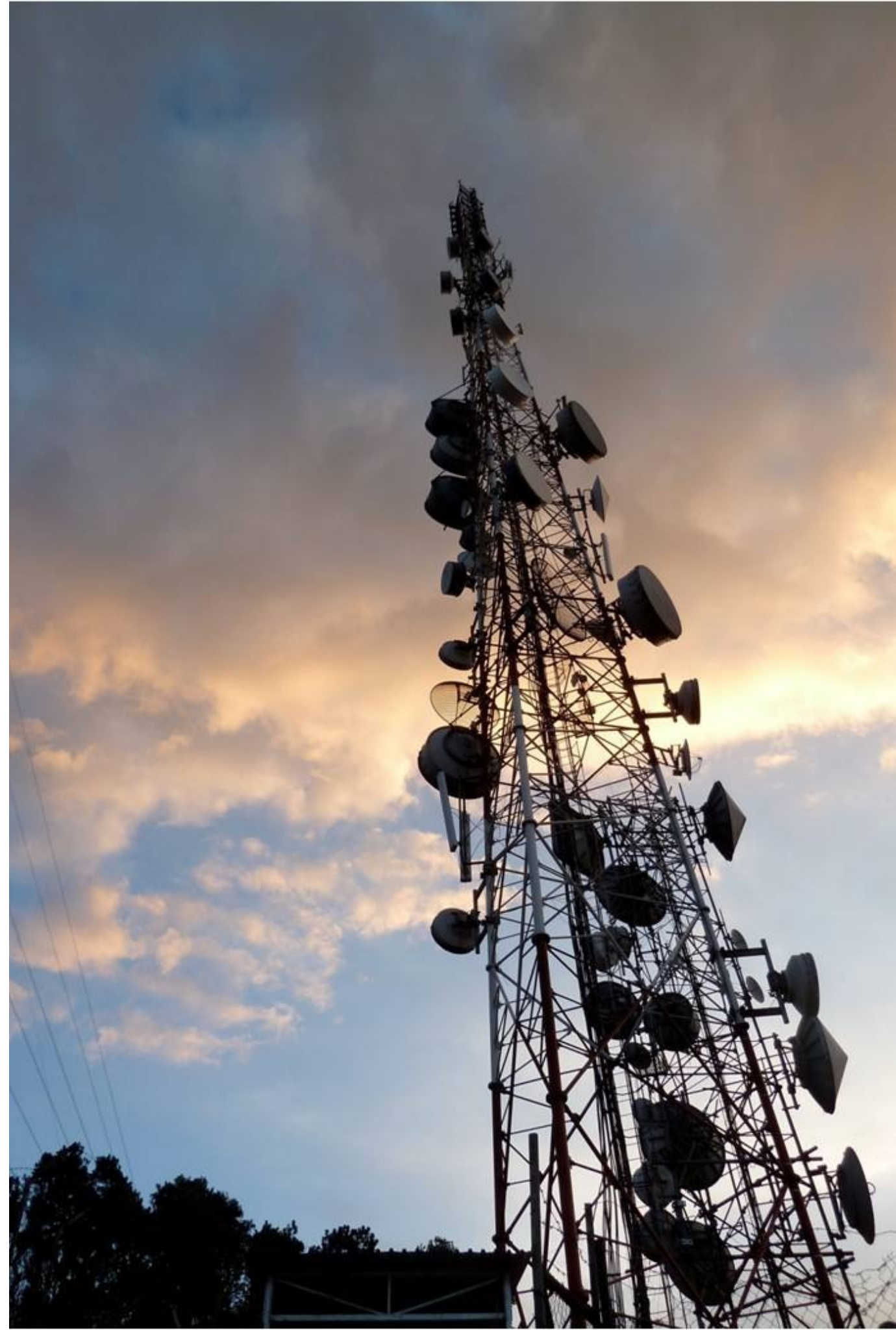
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Telecommunication/ICT4D Lab  
The Abdus Salam International Centre  
for Theoretical Physics



# Goal of the project

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- The goal is to connect the remote hospital of Mangochi to the College of Medicine in Blantyre, 160km far away.
- We started by training 3 students of the Malawi Polytechnic at ICTP.
- International project, need for reliable Internet connection.





# Training in the Alps, 130km wireless link

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# Hands-on training

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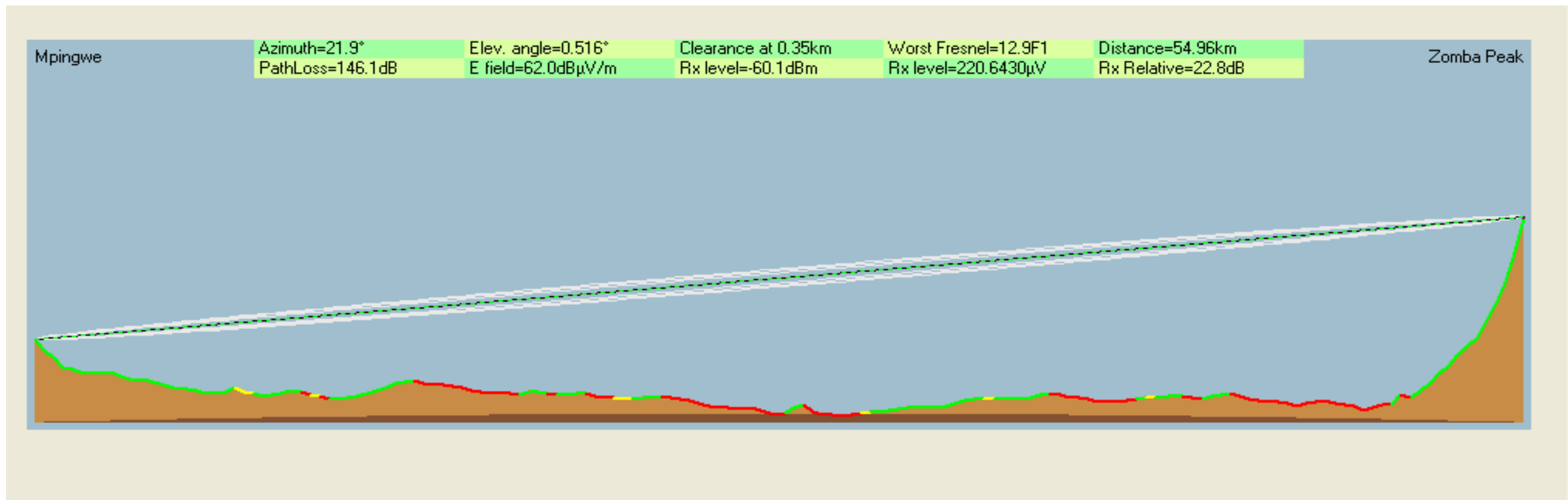
# First step: finding suitable sites



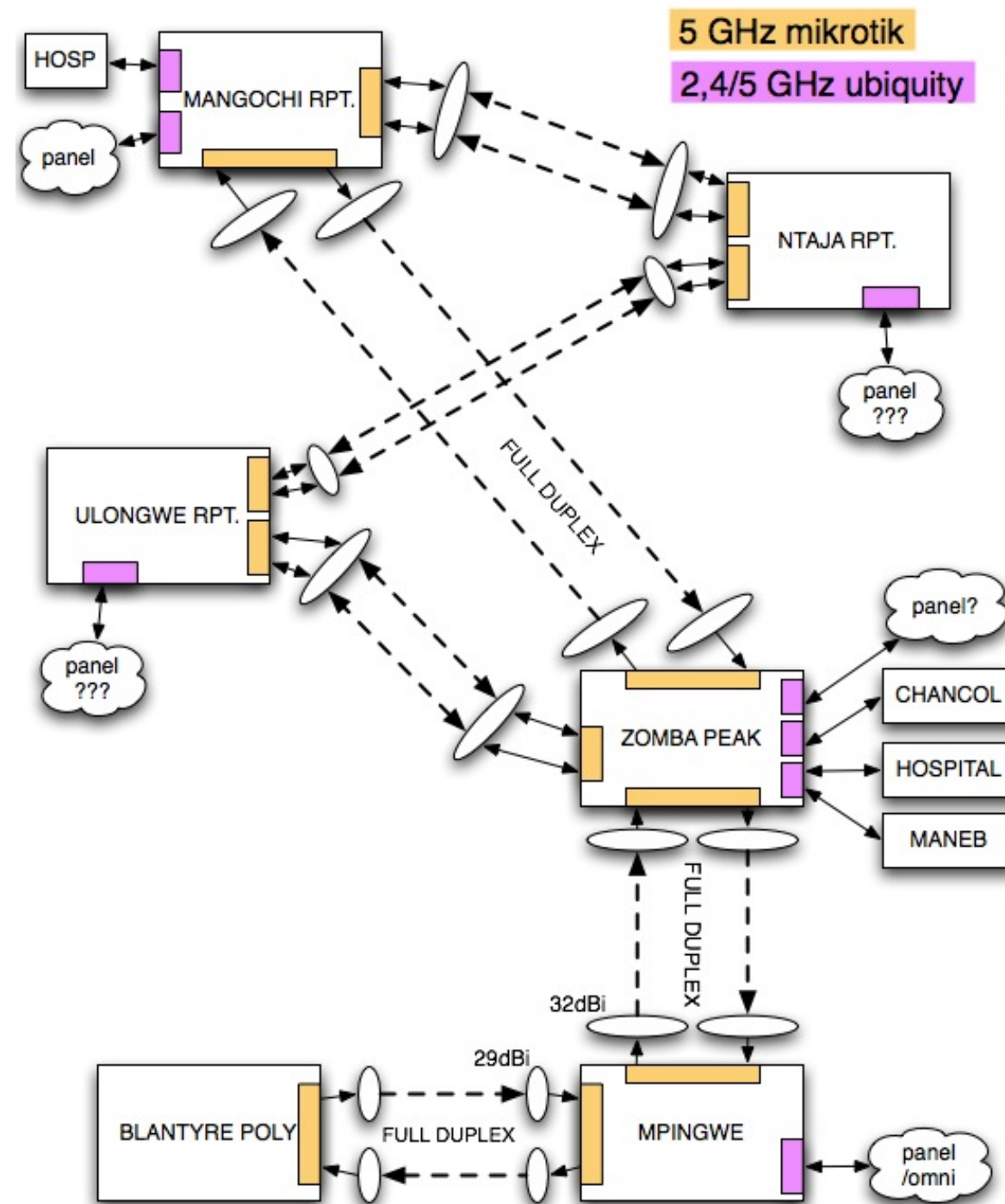


# Second step: simulating the link

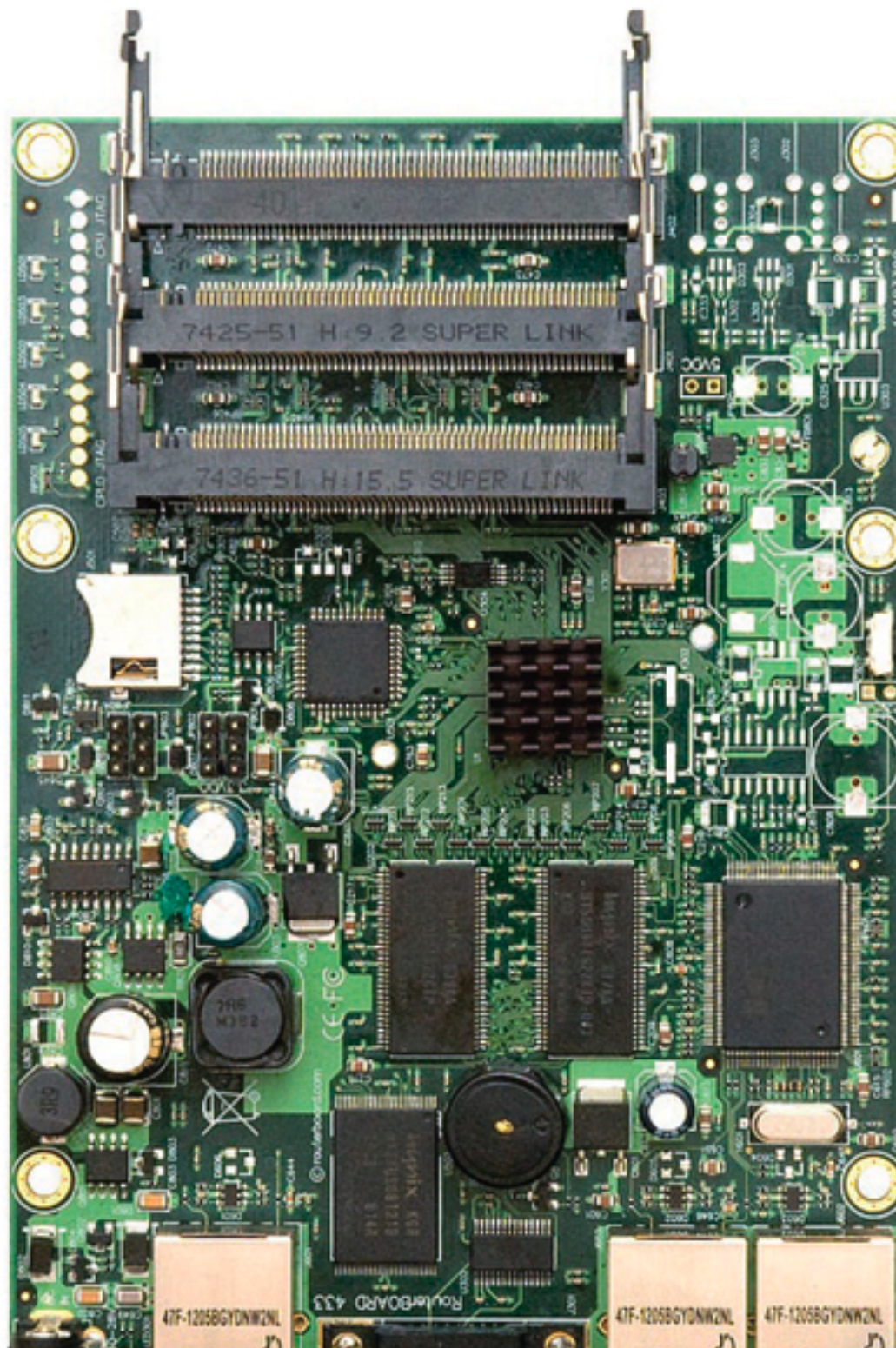
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# Third step: designing the network



# Fourth step: selecting the equipment



Mikrotik RouterBOARD 433 with Atheros AR7161 680MHz Network CPU (overclock to 800MHz), 128MB DDR RAM, 3 10/100 ethernet ports with MDI/X, 3 miniPCI, microSD, 64MB NAND with RouterOS L5.

**SAVE**  
17%

Supports POE on ether1: 10 to 28vdc on unused pairs (no power over datalines), or 10-28vdc power jack support. Overall dimensions: 150mm x 105mm (5.9in x 4.13in).

New product - in stock!

## Details

SKU RB/433AH  
Quantity in stock 66 item(s) available  
Weight 0.35 lbs  
Documentation (PDF) [Brochure](#)

**Price: \$149.00**

## Options

Quantity

1

Quantity:	10-19 Items	20-59 Items	60+ Items
Price:	\$144.00	\$140.00	\$137.00

[Add to cart](#)

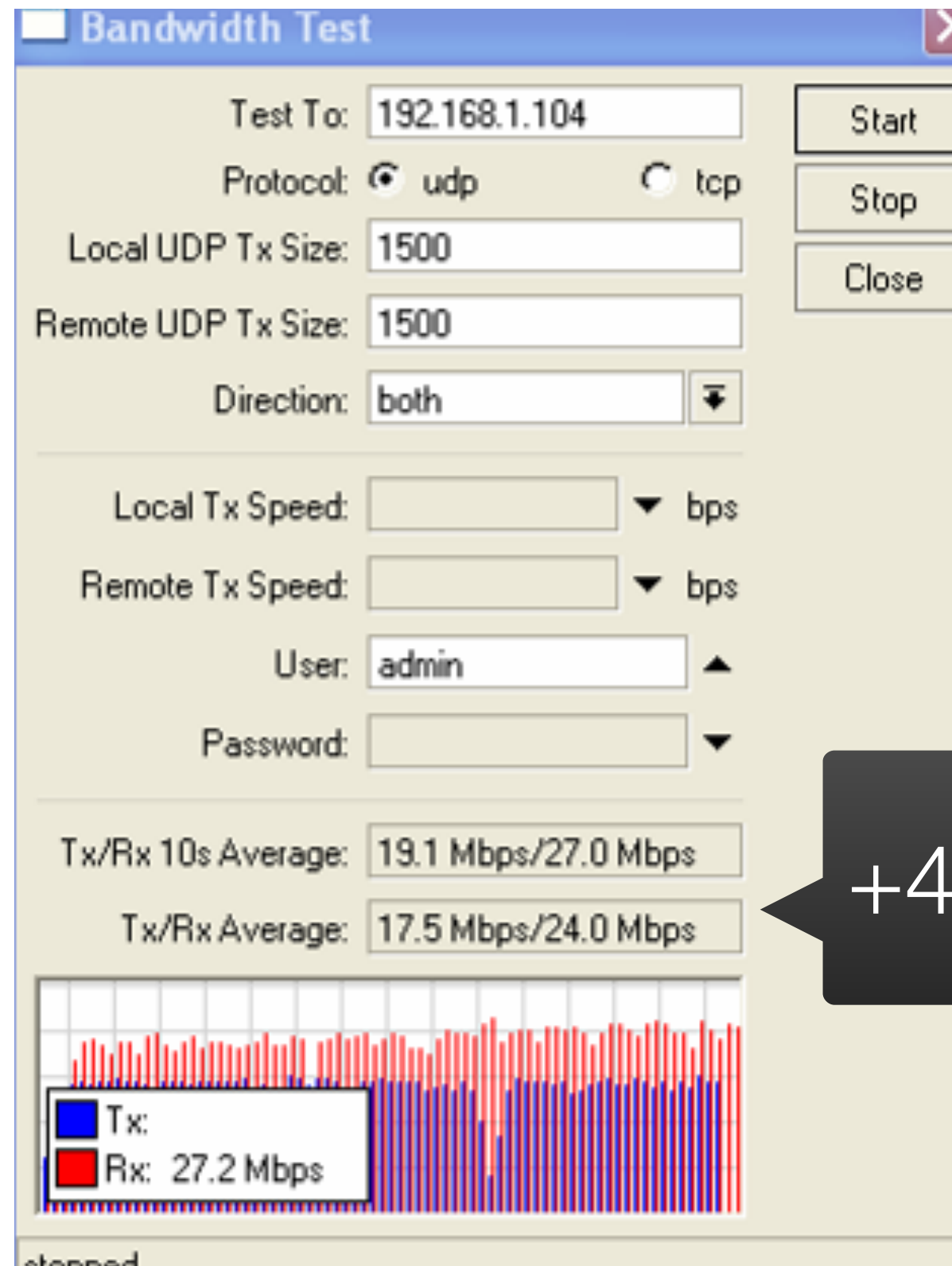
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# Result: broadband over a 160km link!



+40Mbps



# St Martins hospital



## St Martin's Hospital Malawi

*Supporting the work of St Martin's Hospital in Malawi*

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## Welcome to the website of St Martins Hospital in Malindi!

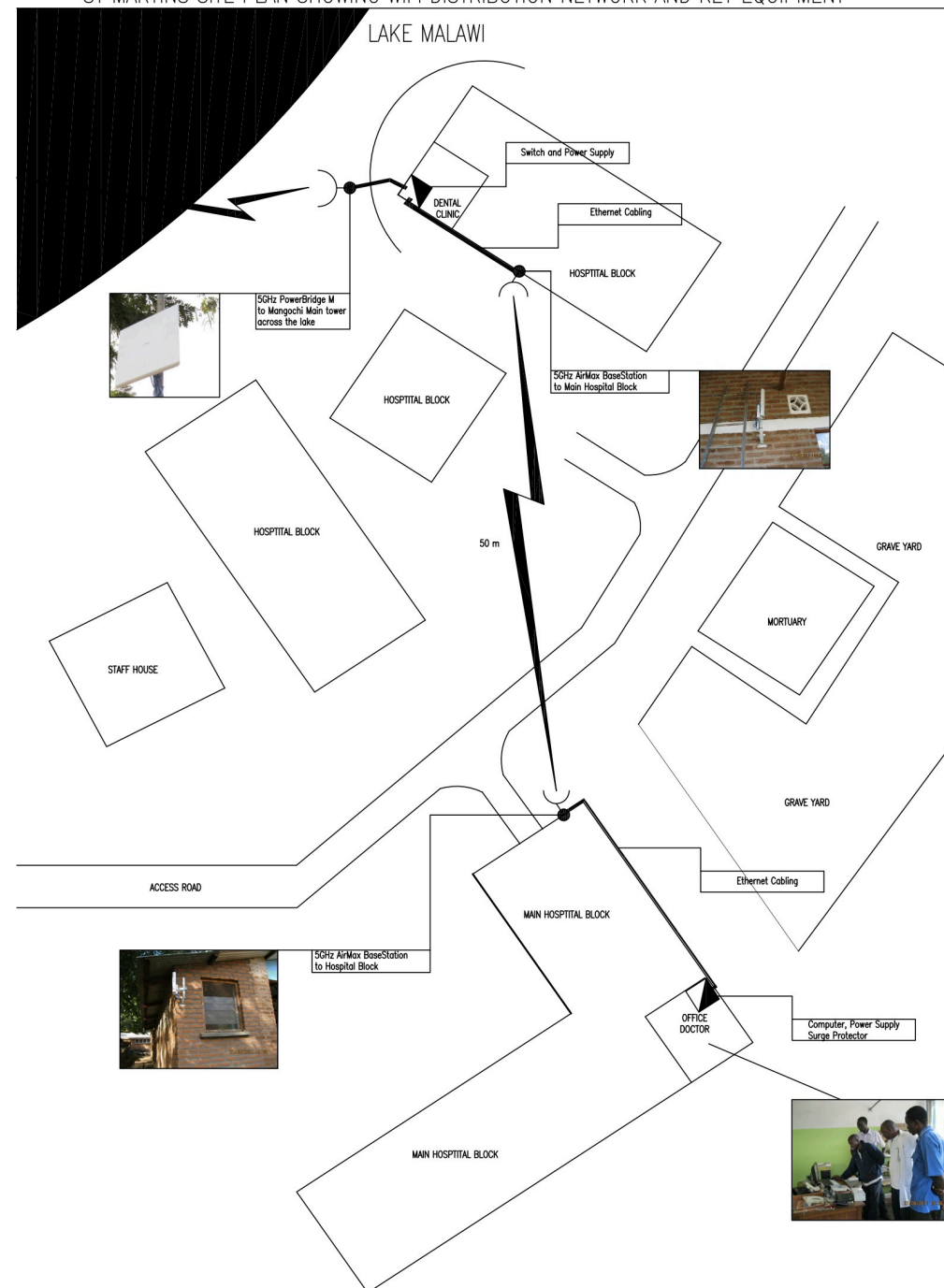
St Martin's Hospital is a 100-bed hospital serving a population of 40,000 in the Mangochi District on the shores of Lake Malawi





# St Martins hospital

ST MARTINS SITE PLAN SHOWING WIFI DISTRIBUTION NETWORK AND KEY EQUIPMENT



# St Martins hospital

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# St Martins hospital

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# St Martins hospital

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# St Martins hospital

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# Power in Zomba

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From my analysis the link has been down from 7.25am today due to Zomba Peak. The link is ok up to Mpingwe. The Mangochi nodes could be ok but Zomba Peak. It could be power problems as we are facing quite often power outages.

Timothy