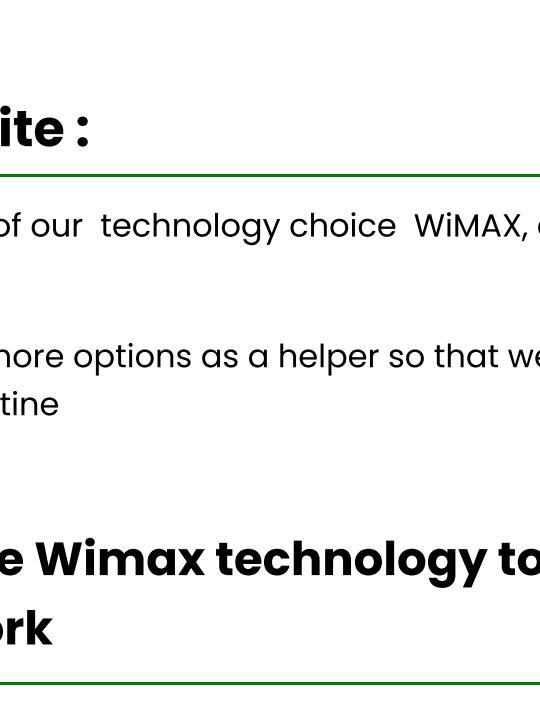




Project Documentation



#STAND WITH GAZA

Introduction



We believe that everyone deserves access to the internet, and we are committed to helping our Palestinians brothers in Gaza to achieve this basic human right.

Our Website Goal

Is To Offer a solution to solve the internet issue for our brothers in Palestine "Gaza and west Bank ". We are determined to provide a platform where They can find propositions of basic wireless networks that can be implemented to help in their situation.

About the website :

- A detailed description of our technology choice WiMAX, and alternative basic wireless networks.
- The possibility to add more options as a helper so that we can cover the needs of our brothers in Palastine

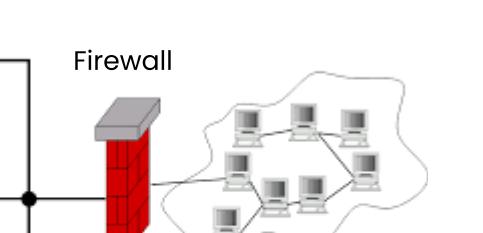
Solution : Use the Wimax technology to create a Wireless Network

• What is Wimax

(Worldwide Interoperability for Microwave Access)

is a wireless broadband technology that provides high-speed internet access over a broad coverage area, making it suitable for various applications, including urban and rural environments.

WiMAX networks can be used to provide internet access to homes, businesses, and government agencies. They can also be used to provide backhaul for mobile networks.

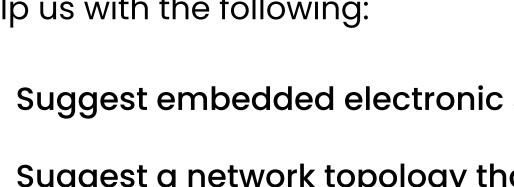


WiFi hot spots

• Why Wimax

In the situation of Gaza, a network based on WiMAX technology can be particularly useful due to its following capabilities :

• Implementation in rural and remote regions



WiMAX is a valuable technology in rural and remote areas where traditional wired broadband infrastructure may be impractical or unavailable. It can connect underserved communities and support essential services such as telemedicine and online education.

This makes it a particular choice for Gaza.

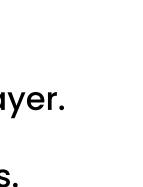
• Internet access for public buildings

WiMAX can provide internet access to schools, hospitals, and other public buildings. This would allow students, patients, and other residents to access the internet for educational, medical, and other purposes.



WiMAX can support the sustainable rebuilding of Gaza.

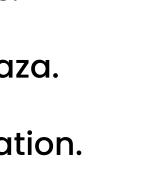
Targeted Problems



In the situation of Gaza, we are limited in our choice of:

- **Hardware and materials :** Our network needs to be robust to withstand enemy attacks and scalable to support the rebuilding of the new network system in Gaza.
- **Security requirements :** The network must be secure against enemy infiltration attempts, both from hardware and software perspectives.

Suggested solutions



• Firewall (Hardware and software)

We need to purchase and install a network-based firewall. We also need to configure the firewall with a strong access control list. The access control list will specify which types of traffic are allowed to pass through the firewall and which types of traffic are blocked.

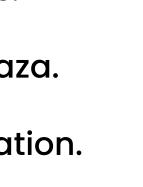
Our network



• Existing routers and wired network

We will exploit existing routers and wired networks to decrease the implementation cost and time. We can do this by connecting the firewall to existing routers and using the firewall to protect the entire wired network.

How you can Help Us



What we need now is to design a simple-to-implement network topology based on the proposed solution. If you are an expert or specialist in computer networks, you can help us with the following:

- Suggest embedded electronic systems that can help at the physical layer.
- Suggest a network topology that can help us achieve the requirements.
- Suggest a protocol or method to help integrate existing hardware in Gaza.
- Work with us as support mentors to solve problems during implementation.

