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Escriviu aquí la vostra dedicatòria

Agraïments Agraeixo....

Abstract

This is the abstract of the thesis in English. Please, use less than 150 words.

Resum

Vet aquí el resum de la tesi en català. Si us plau, utilitzeu menys de 150 paraules.

Prefaci

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Chapter 1

INTRODUCTION

TODO

Chapter 2

STATE OF THE ART

This project consists on studying how are, currently, being build the open mesh networks in cities and what mechanisms we have to contribute or improve them. There are many different ways to improve this networks, namely, we can use different hardware, different software, build applications which run over them, etc.

First of all, we will analyze how these networks are, and how are they operating to have a better idea of what we want to improve.

2.1 Mesh and MANET networks

2.1.1 Definition and properties

When we talk about mesh networks, we refer to networks where all the participant are also routers. If we had to set a single definition the following can be a good one:

"*A Mesh network is one where all nodes (participants) are routers, meaning that all the nodes accept and forward packets from other nodes according to the routing rules.*" [Escrich, 2012]

More specifically, we want to talk about Wireless Mesh Networks (WMN) which may refer also to the users of the network, and can be defined as follows:

"*Wireless mesh networks often consist of mesh clients, mesh routers and gateways. The mesh clients are often laptops, cell phones and other wireless devices while the mesh routers forward traffic to and from the gateways which may but need not connect to the Internet.*" [Huynh,]

To summarize, we have that mesh networks are basically networks which are not defined by the topology (physical layer) or the kind of links between two nodes (link layer). They are defined by the way the nodes operate among them, there are not master/slave or node/supernode distinctions and so, all the nodes have a similar function. In addition, the clients (end users) do not notice any difference (between mesh or other kind of networks) when they connect to the mesh, they are totally transparent for them.

As mentioned above, there are only two different kind of nodes: mesh routers and mesh gateways. They operate in exactly the same way when they have to route packets within the network, the only difference is that the gateways may be connected to a wider network, namely, the Internet and they can route packets to this other network. So, mesh routers just route packets inside the mesh while mesh gateways can also route packets to the outside.

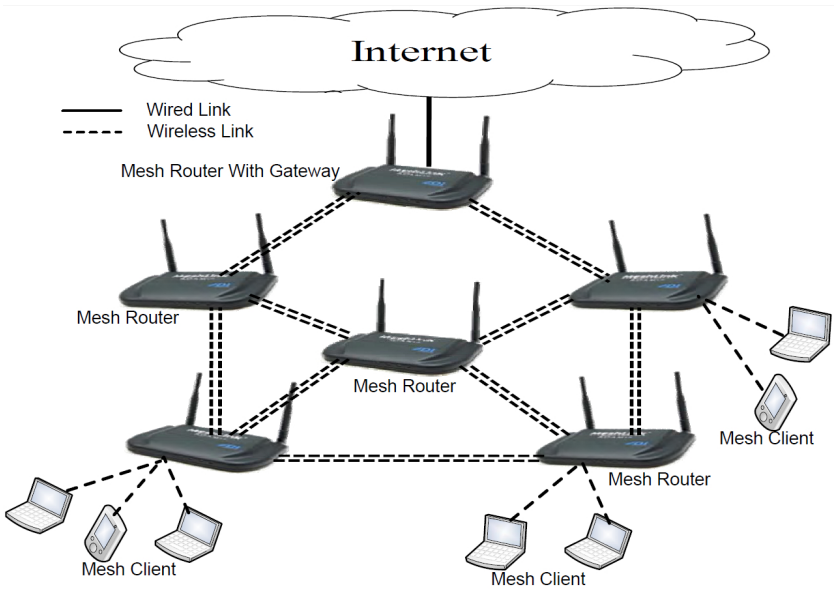

Figure 2.1: Wireless Mesh Network Example

http://www.intechopen.com/source/html/37888/media/wmn11.jpg

Then, we can say that WMN are a subtype of mesh networks. They have all the properties of these networks with the only difference that all the nodes are connected wirelessly.

2.1.2 Operating modes

Chapter 3

METHODOLOGY

TODO

Chapter 4

CONTRIBUTION

Chapter 5

RESULTS

TODO

Chapter 6

CONCLUSIONS

TODO

Chapter 7

FUTURE WORK

TODO

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