



November 2009

Wireless Community Networks in Greece

2002-2009 Athens Wireless Metropolitan Network

WCN ID

- **Management & Representation**

Formal vs. Informal Representation

- **Growing Model**

open and voluntary vs. more selective groups

- **Founding**

financially self-dependant

- **Technology and Network Topology**

partial mesh, backbone network

- **Large Scale Network Management**

Routing Protocols

Online Maps and Monitoring

- **Network Services**

Internet vs. Intranet services



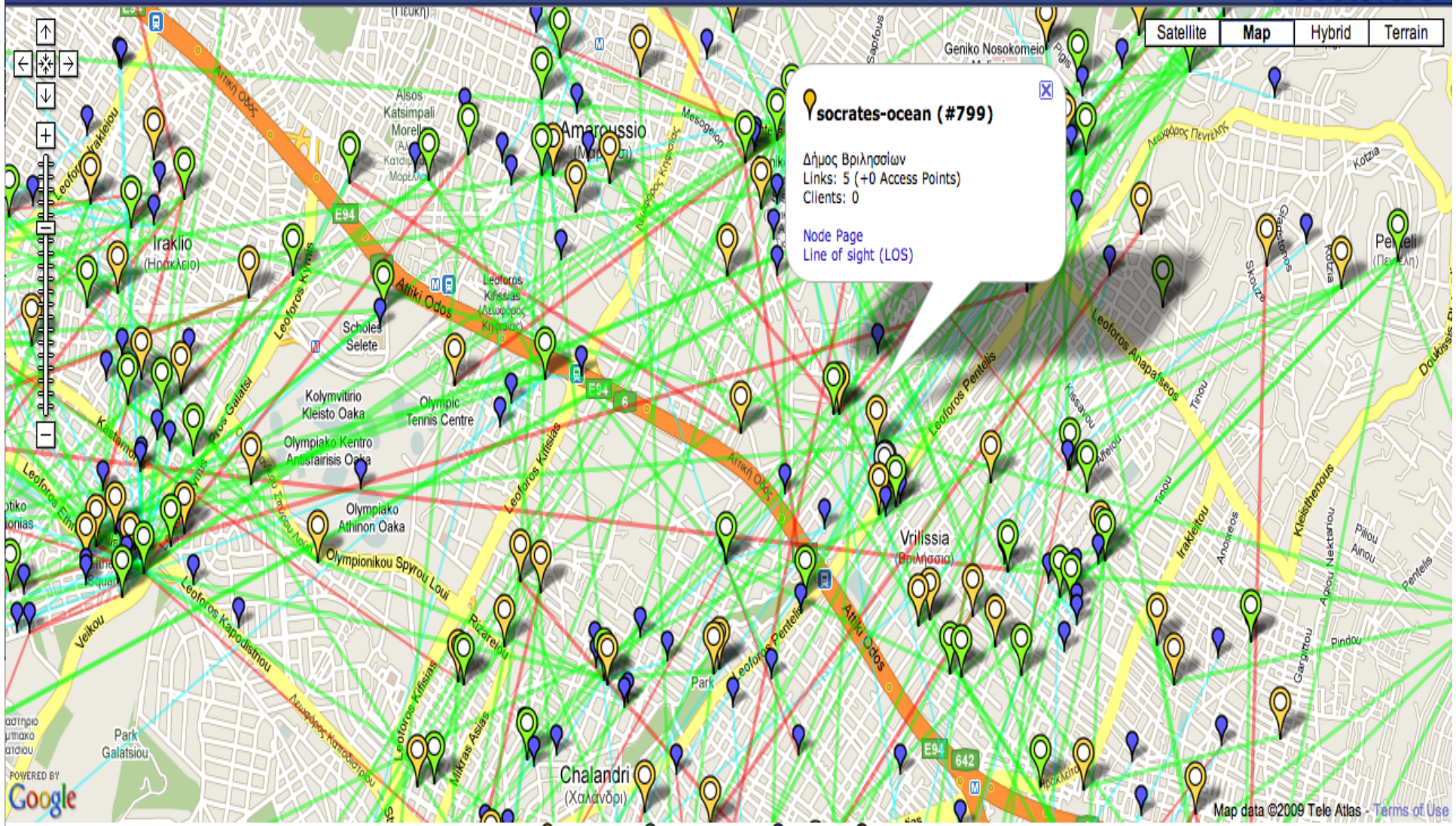
AWMN ID



- **Location & Action Area:** Mainly in Athens Greece
- **Registered Users:** More than 2400 registered fixed points
- **Legal Form & Rep.:** Non-profit Association
- **Foundation Year:** June-2002
- **Growing Model:** Open and voluntary
- **Founding:** Memberships, Donations, Sponsorships
- **Technology:** WiFi 802.11abgn, Commercial & homemaking eq.
- **Network Topology:** Partial Mesh, Fast and reliable bb network
- **Network Management:** WiND, BGP, OLSR Confederations
- **Network Services:** TCP/IP broadband services, training
- **Official Website:** www.awmn.net
- **Online Nodes Map:** wind.awmn.net



Satellite Map Hybrid Terrain



socrates-ocean (#799)
Δήμος Βριλησίων
Links: 5 (+0 Access Points)
Clients: 0
[Node Page](#)
[Line of sight \(LOS\)](#)

Backbone Access Points Clients Not linked

AWMN objectives

Continuous Effort - Recognizability

Its aims include:

- To establish, develop and maintain a [community wireless network](#) connecting people and services.
- To develop and test technologies based on [wireless](#) and digital telecommunications
- To train people in the usage of wireless and digital telecommunications.
- To promote and encourage [volunteerism](#) and active participation



WCNs in Greece

- **Hellas Wireless**

- 17 WCNs all over the country
- 4000 households connected in total

- **Intercommunity connections**

- Two main groups of WCN (South and North)
- Key Nodes

- **Academic VPN**

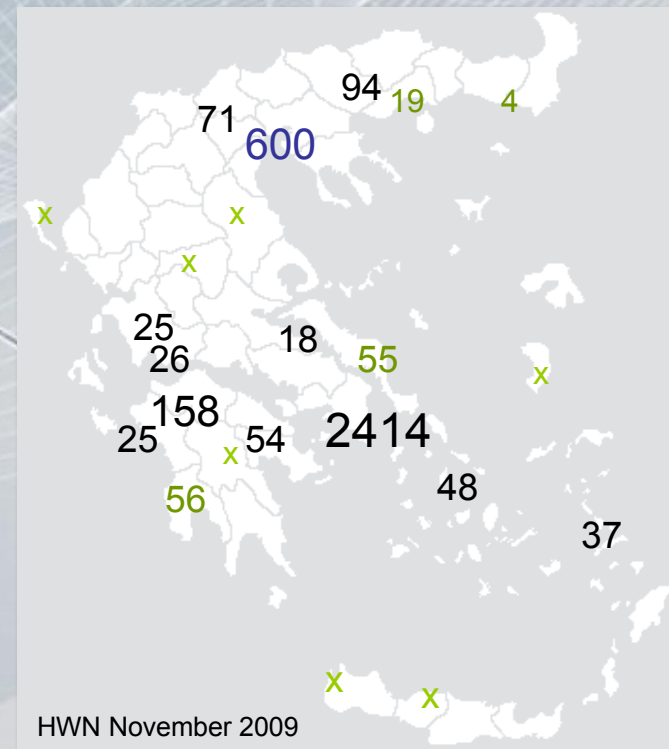
Internet Bandwidth is limited and expensive

- **Countrywide IPs arrangement**

...since 2004

- **VoIP communications**

smooth Voice over IP telecommunications



The main issues of WCNs (Social Issues)

- **Only few new active members**

“Invisible” end users

- **Volunteerism vs. Commitment**

The ugly truth!

- **Idealism vs. realism**

Balance is all we need!

- **Lack of Technical Knowledge**

More documentation please!

- **Indifference**

“Invisible” end users

- **Impersonal Networks**

Why do we need registered members?

- **Lack of teamwork**

Teamwork vs. free riding



The main issues of WCNs (Technical)

- **Bad maintained nodes**

Lack of knowledge, time and cost

- **Misconfigured routers**

Lack of knowledge, Indifference

- **Security Issues**

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- **Legal Issues**

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- **Noise and Interference**

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- **Competitive Internet**

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- **Lack of RFCs**

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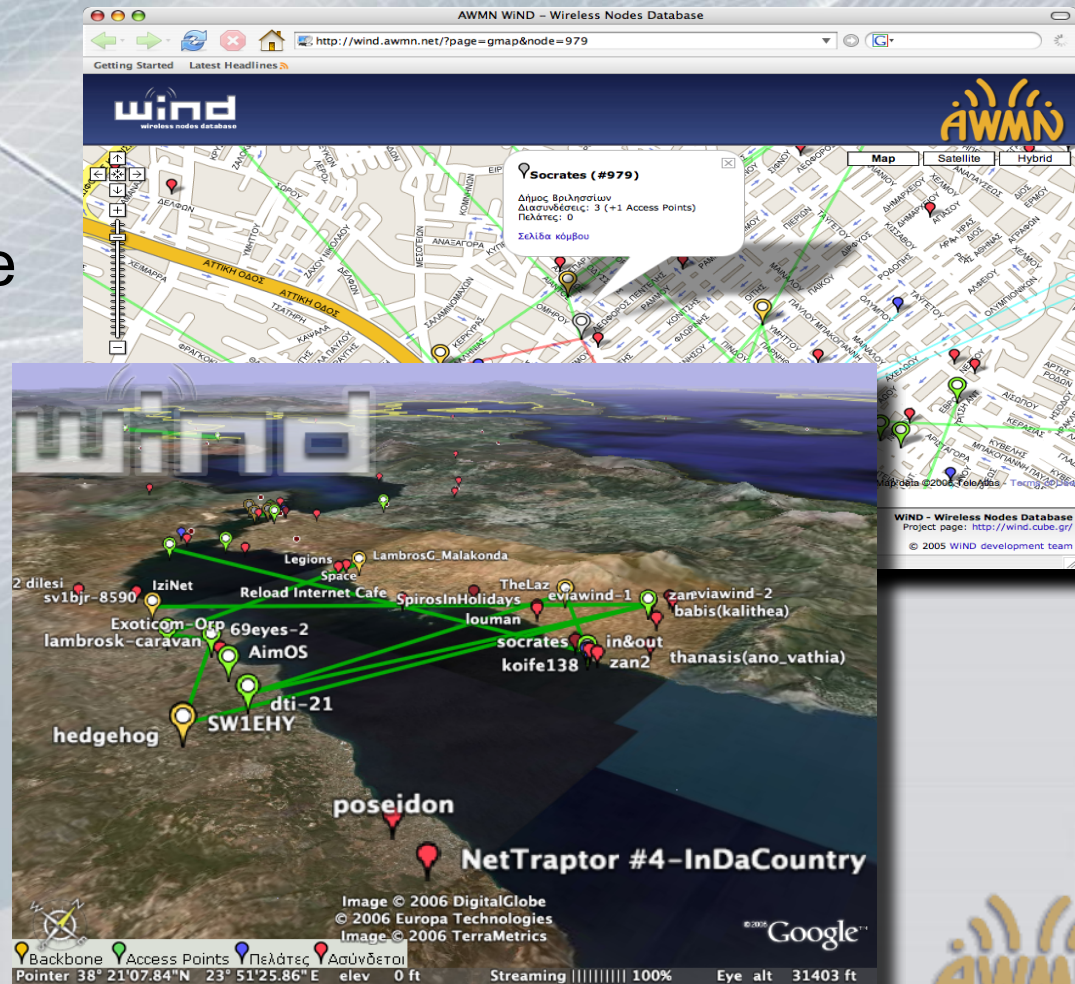
- **Financial Stability**

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Wireless Nodes Database (WIND)

- wind.awmn.net
- GNU GPL v2 licence
- Snapshots
- IPs & DNS
- Services DB
- G. Earth



Node info [Node edit](#)

Node ID	1
Node name	socrates
Area	Αμαρυνθίων
District	Εύβοια
Created	04/18/06
Administrator	socrates Contact

Info

Evia Go Wirelesssss!!!

Κόμβος αδιάλειπτης λειτουργίας στο κέντρο της Αμαρύνθου.
Services are coming soon!

IP C-Classes

C Class	Date	Status
10.146.1.0 - 10.146.1.255	05/11/06	Active

DNS zones

Zone name	Date	Status
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Nameservers (NS)

Nameserver name	IP address	Date	Status
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[Line of sight \(LOS\) with other nodes](#)

Google earth

New Window

socrates (#1)

Αμαρυνθίων
Links: 2 (+1 Access Points)
Clients: 1

[Node Page](#)

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Backbone Access Points Clients Not linked

Training our power is our people

- **Training**
Seminars | Workshops | Personal Guidance
- **Development**
Open Source | Custom Applications
- **Networking**
Team Work | Community
- **Participation**
Volunteerism
- **Fun**
...after all it is our hobby!

```
UP 100(%) 4.6 File: traffic limiter
to qdisc del dev $1 root >>devnull 2>&1
to qdisc add dev $1 root handle 1: htb default 30
to class add dev $1 parent 1: classid 1:1 htb rate 250kbps

# ICMP,UDP,TELNET,SSH,H323(VOIP),SIP
to class add dev $1 parent 1:1 classid 1:10 htb rate 62kbps ceil 100kbps prio 1
to class add dev $1 parent 1:1 classid 1:20 htb rate 62kbps ceil 150kbps prio 2

# DEFAULT,RSYNC,FTP
to class add dev $1 parent 1:1 classid 1:30 htb rate 62kbps ceil 150kbps prio 3

# DC++ and all other
to class add dev $1 parent 1:1 classid 1:40 htb rate 62kbps ceil 150kbps prio 4

to qdisc add dev $1 parent 1:1 handle 10: sfq perturb 10
to qdisc add dev $1 parent 1:10 handle 20: sfq perturb 10
to qdisc add dev $1 parent 1:20 handle 30: sfq perturb 10
to qdisc add dev $1 parent 1:30 handle 40: sfq perturb 10

# Begin iptables s
#nofprobe ipt_ip
```



Workshops

our power is our people

- AWMN Routers
- Antenna Systems
- Cabling
- Electronics
- Outdoor equipment



Roofwork our power is our people

- E/M theory
- Planning
- Interconnectivity
- Maintenance
- Proof of Concept
- Coverage



“Mt. Parnitha” project our power is our people

- EWN Joins AWMN
- Installation
- Teamwork
- What is next?
(WNK, PWMN, LWMN)



AWMN services

Communication

VoIP | Mail | Chat | Fora | Teamspeak

Training

eLearning | eLibrary | Seminars | Tutorials | Workshops

News - Updated Information

Blogs | Portals | Mirrored News | Weather Forecasts

File Sharing

FTP servers | P2P | Photo Albums | Live Jukebox

Network Management

WiND | Nagios | Charts | Databases | Tools

Entertainment

Online Games | Radio Broadcasting | Video Streaming

...and much more



Five steps to connect

1. Node Registration (WiND)

2. Gathering Basic Info

Tutorials | Wiki | Forum | Intro-Workshop

3. Contact People

Forum | WiND | MSN | Voice | Meetings

4. Gathering Equipment

BB or Client | Numbers of ifs | Custom solutions

5. Installation



Further Information

- <http://info.awmn.net>

Information about awmn (in greek)

- <http://www.awmn.net>

AWMN official site (in greek)

- <http://www.awmn.net.net/forum>

AWMN main forum (in greek)

- <http://wind.awmn.net>

Wireless Nodes Database (WiND)

- info.@awmn.net

Use this e-mail for further information

