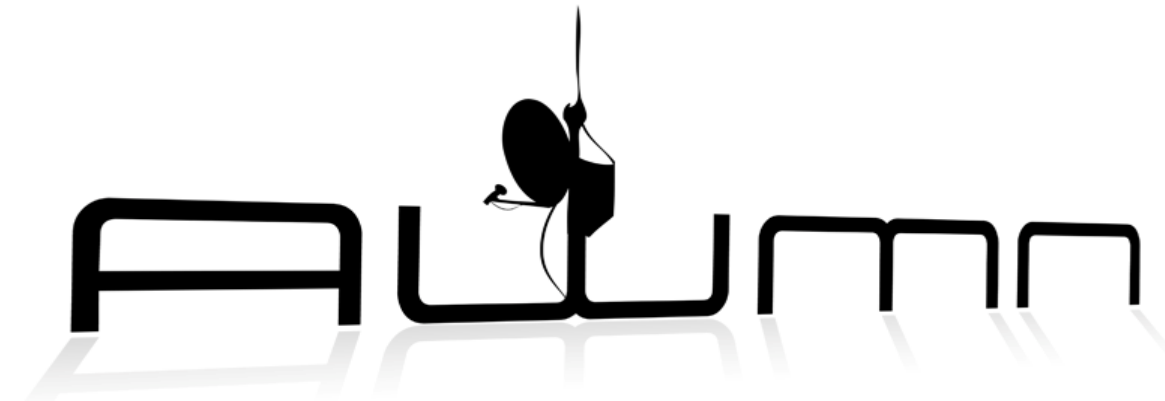




April 2009



Athens Wireless Metropolitan Network

ATHENS WIRELESS METROPOLITAN NETWORK

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Started in 2002 in Athens Greece, AWMN is a social initiative - project, taking advantage of new, state of the art wireless technologies, to connect people and services, open to everyone who wants to participate.



AWMN identity

- **Legal Form and Representation**
non-profit Association
- **Growing Model**
open and voluntary, best effort network
- **Founding**
non-profit and self-dependant
- **Technolgy**
wireless WAN, based on IEEE 802.11 + open source
- **Services**
TCP/IP broadband services, training, support
- **Members Base**
 - more than 2.400 members already connected
 - more than 8.000 people have stated their intention to get connected in the near future
 - constant growth of our members base
- **Action Area**
mainly in Athens Greece, but as the largest wireless community coordinates and provides help to other smaller communities around the country.



Why Wireless

- **Portability and location independence**
- **Cheaper & affordable to anyone. Equipment cost only.**
- **Faster speeds than existing ADSL technology. Symmetrical.**
- **Experiment & use of technologies in a large scale Network**
- **Areas with non-existing or limited technology infrastructure**
- **High bandwidth demanding services not feasible by adsl technology**
- **Alternative R&D in eco-powered low consumption wireless devices**
- **Low Power directional Backbone links compared to laptop wireless**
- **Operating in the free band of 2.4 & 5GHz outdoors**
- **Hardware & Software Development on wireless technologies**
 - **Every member (BB link) acts like a small ISP**
 - **Acts as a buffer to the internet**

Motivation - social impact

- **Active supporting, extending and maintaining a wireless community like AWMN and on the other hand taking advantage of numerous services. Fast and easy, inspires and motivates every member in participating and contributing.**
- **Having access not only to Information which is fundamental to all individuals but also actively taking part in creating new services and building up a unique features network. Needs exciting people willing to offer and to experiment, to teach and to be taught.**
- **Many of our members are of higher education. However, there are different vocations among us. The age level of our members is also diverse. This is a sign of how wide-ranging and the social network of our community can be.**

AWMN objectives

Continuous Effort - Recognisability

Its aims include:

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



AWMN milestones

Continuous Effort

- **[2002 Feb.]** 1st post and idea for a wireless Metropolitan Area Network based on 802.11b
- **[2002 June]** Association establishment (Stature) & Main Forum creation (now more than 12,000 users)
- **[2004 Sep]** HellasWireless: Countrywide IPs arrangement
- **[2004 Sep]** transition to BGP protocol
- **[2004 Oct]** 1st RouterOS with GUI was deployed
- **[2005 Jan]** East Attika (7 bb nodes) joins AWMN
- **[2005 June]** Creation of WiND (Wireless Nodes DB)
- **[2005 Sep]** Cooperation with ETHEM (new training center)
- **[2005 Dec]** Open Invitation to other greek WLANs. Inet to members of AWMN
- **[2006 April]** 802.11a - 5,4GHz Band Opening for WLANs
- **[2006 Oct]** EWN (20 bb nodes) joins AWMN (Parnitha Mountain)
- **[2007 May]** 1st Cooperation with Radio Amateurs Association in Greece
- **[2008 Dec]** Cooperation & AWMN Servers Hosting by Technological Institute of Piraeus. VPN Tunnels with other wireless communities.
- **[2009 Feb]** 1st Cooperation with Hellug (Hellenic Linux User Group)



AWMN achievements #1

- **One of the largest non-commercial WLANs in the world**

More than 2400 members already connected, more than 8,000 people have already stated their intention to participate.

- **Provides symmetrical high broadband services directly to citizens**

Without extra costs and with great redundancy.

All services are provided by our members to our members.

- **Works like a huge lab**

Giving the opportunity to practice and enhance our skills.

Troubleshooting, management of a large scale network with many users

- **Provides smooth Voice over IP telecommunications**

It is optimized for VoIP conversations and teleconferences

- **It is a great entertaining medium**

Live radio shows, music jukeboxes, video streaming, online gaming



AWMN achievements #2

- **It is a digital and social community**

Brings together people with same interests and concerns.

Monthly and weekly meetings as well as annual events are giving to people the opportunity to meet each other and to share their ideas.

- **Connects remote regions**

Like small islands, small towns and rural regions with nonexistent or limited technology infrastructure, Already AWMN covers many sq. miles.

- **Trains people on new technologies**

Many people have been trained and encouraged to actively participate in the network.

Everyone has the ability to publish their own service.

- **Represents network members to the state**

Participation on public consultations about the national broadband strategy.


References in Media (press, radio, TV and Internet)



AWMN action area

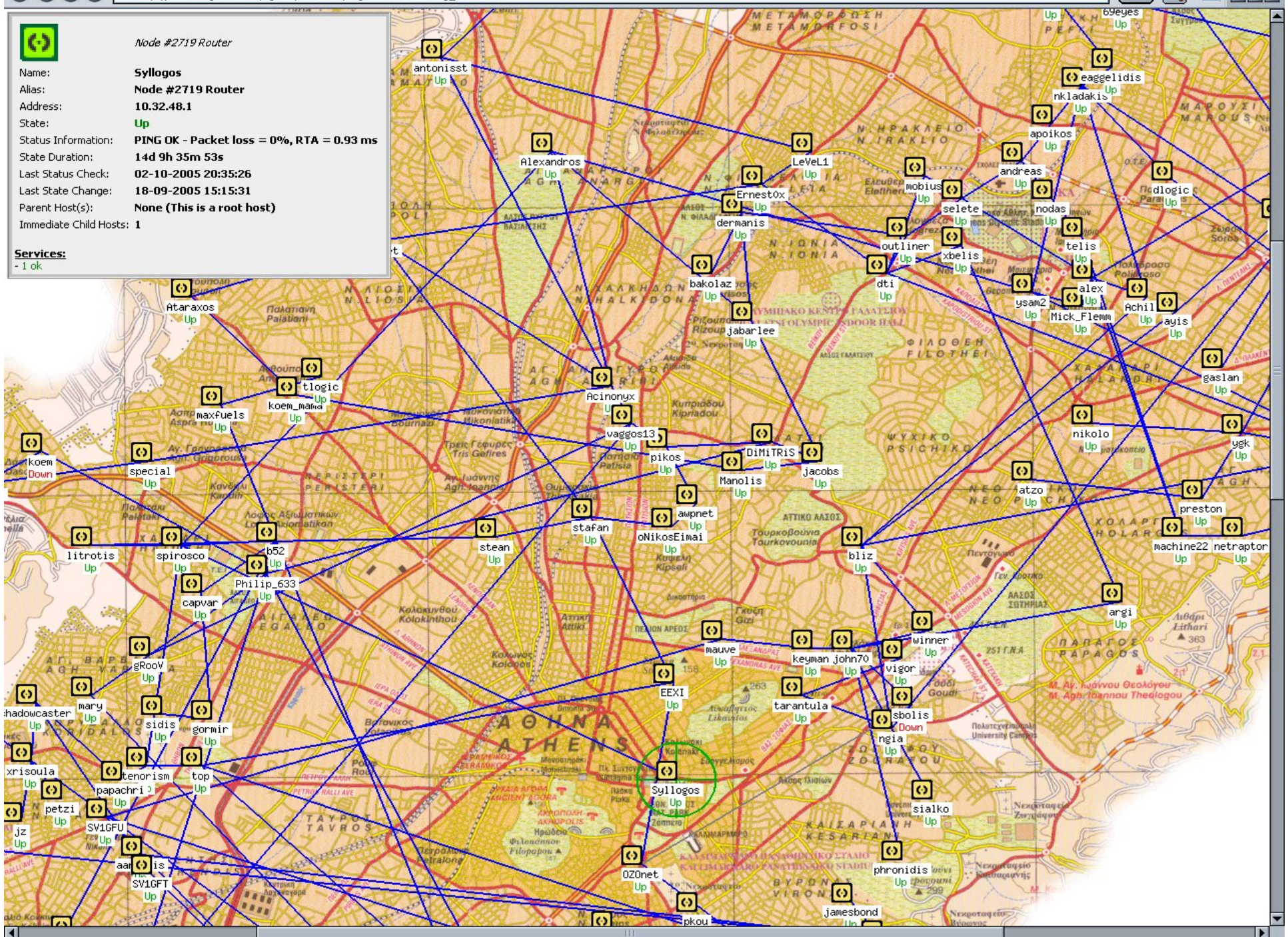
One of the largest independent wireless communities in Europe



 **Node #2719 Router**

Name: **Sylogos**
Alias: **Node #2719 Router**
Address: **10.32.48.1**
State: **Up**
Status Information: **PING OK - Packet loss = 0%, RTA = 0.93 ms**
State Duration: **14d 9h 35m 53s**
Last Status Check: **02-10-2005 20:35:26**
Last State Change: **18-09-2005 15:15:31**
Parent Host(s): **None (This is a root host)**
Immediate Child Hosts: **1**

Services:
- 1 ok



Training

our power is our people

- **Training**
Seminars | Workshops | Personal Guidance

- **Development**
Open Source | Custom Applications

- **Networking**
Team Work | Community

- **Participation**
Voluntarism

- **Fun**
...after all it is our hobby!

```
File: traffic_limiter
te qdisc del dev $1 root >>devnull 2>&1
te qdisc add dev $1 root handle 1: htb default 30
te class add dev $1 parent 1: classid 1:1 htb rate 250kbps

# ICMP,UDP,TELNET,SSH,H323(COIP),SIP
te class add dev $1 parent 1:1 classid 1:10 htb rate 62kbps ceil 100kbps prio 1

# HTTP,HTTPS,SMTP,POP3,IMAP
te class add dev $1 parent 1:1 classid 1:20 htb rate 62kbps ceil 150kbps prio 2

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

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

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

# Begin iptables s
#nodprobe ipt_ip
```



Workshops

our power is our people

- AWMN Routers
- Antenna Designs
- Cabling
- Experimentation
- Roofwork



Roofwork

our power is our people

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



"Mt. Parnitha" our power is our people

- EWN Joins AWMN
- Installation
- Teamwork
- What is next?



AWMN services

1. Communication

VoIP | Mail | Chat | Fora | Team speak

2. Training

eLearning | e-Library | Seminars | Tutorials | Workshops

3. News - Updated Information

Blogs | Portals | Mirrored News | Weather Forecasts

4. File Sharing

FTP servers | P2P | Photo Albums | Live Jukebox

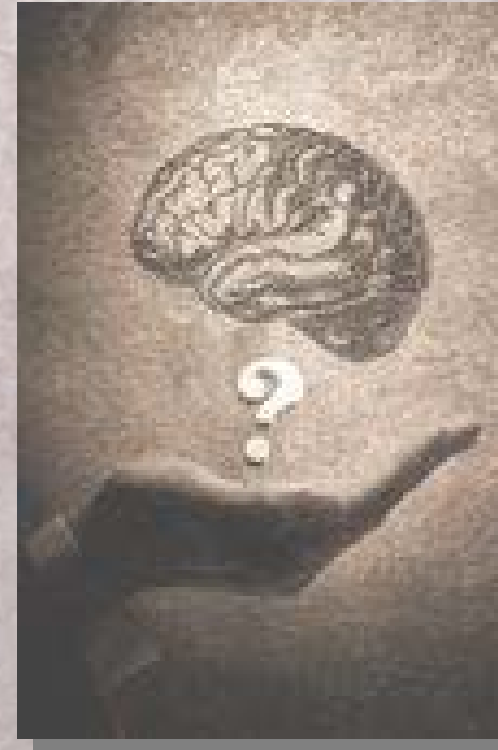
5. Network Management

WiND | Nagios | Charts | Databases | Tools

6. Entertainment

Online Games | Radio Broadcasting | Video Streaming

7. ...and much more



5 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



AWMN

Wireless Nodes Database

- wind.awmn.net

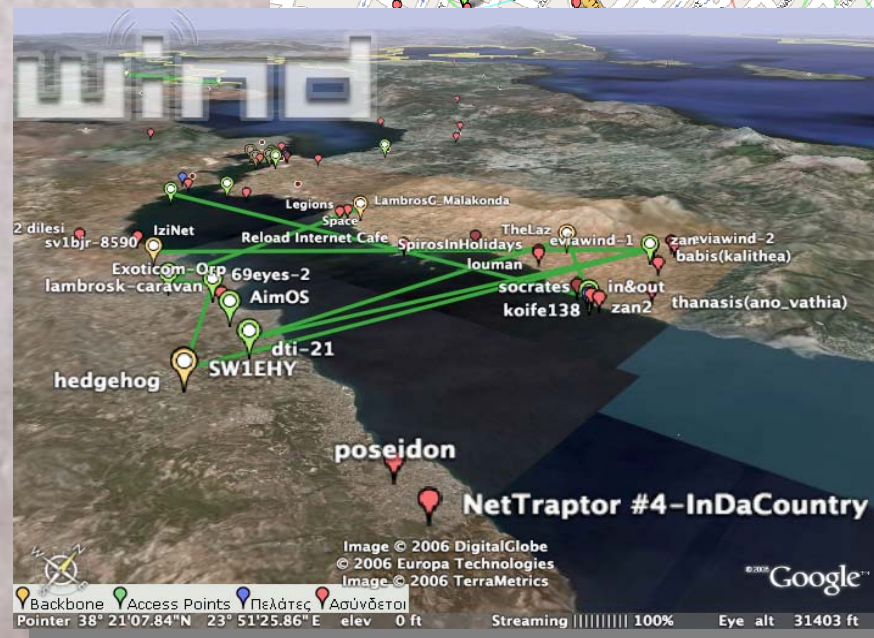
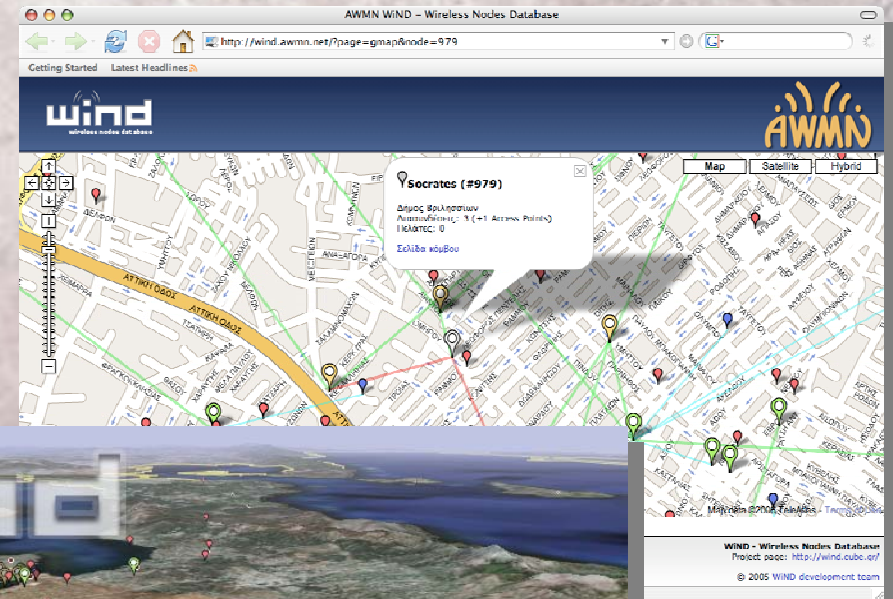
- GNU GPL v2 license

- 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
-----------	------	--------

Nameservers (NS)

Nameserver name	IP address	Date	Status
-----------------	------------	------	--------

[Line of sight \(LOS\) with other nodes](#)

Google earth

New Window

socrates (#1)

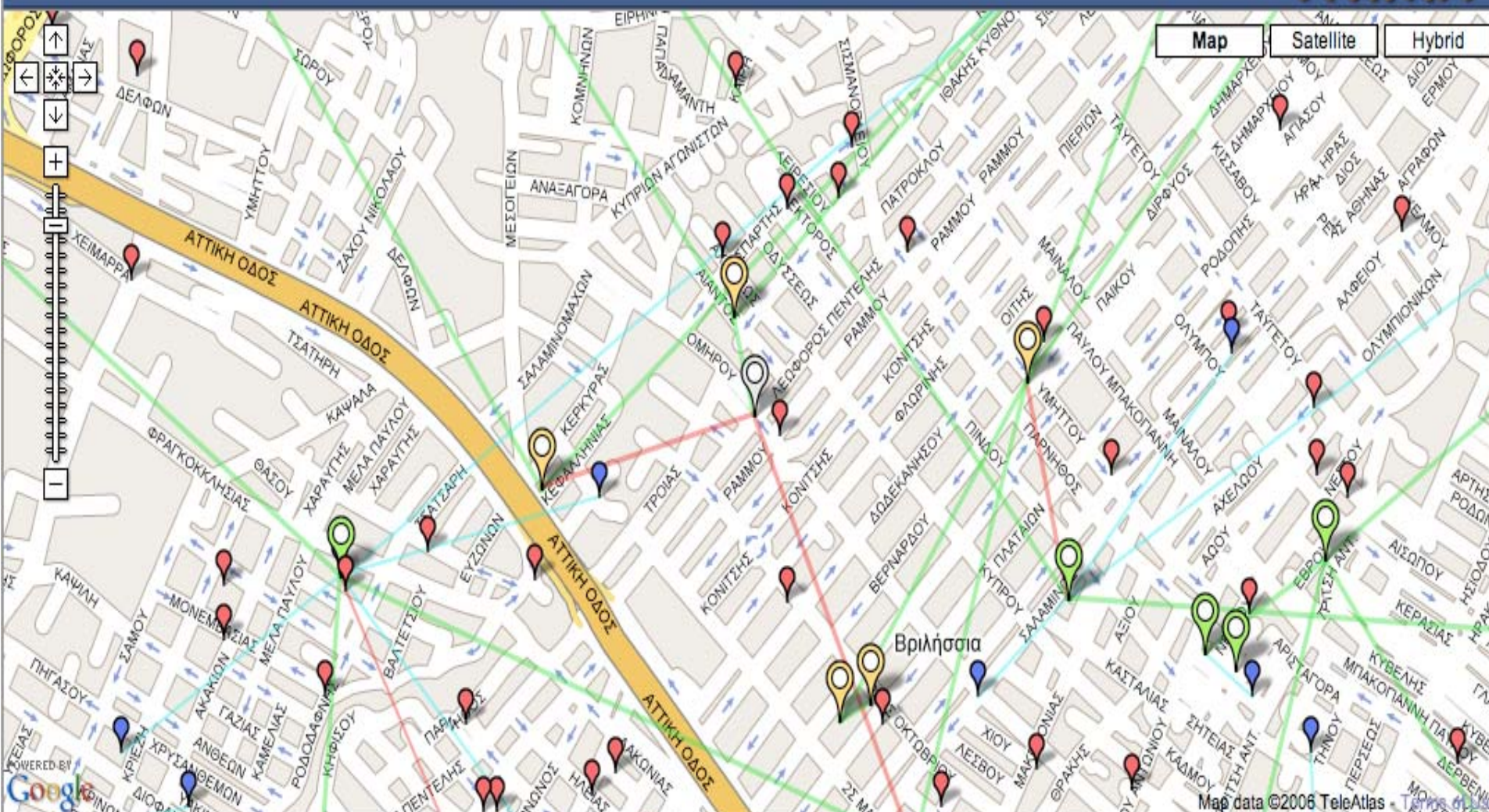
Αμαρυνθίων
Links: 2 (+1 Access Points)
Clients: 1

[Node Page](#)

POWERED BY Google

Imagery ©2007 DigitalGlobe - Terms of Use

Backbone Access Points Clients Not linked



Backbone Access Points Πελάτες Ασύνδετοι

Thin Report Survey

ELTRUN

**ATHENS UNIVERSITY OF ECONOMICS
AND BUSINESS**

ELTRUN Wireless Research Center

**UNDERSTANDING MOTIVATION
AND EFFORT IN COMMUNITY-
BASED WLANS**

Dr. MARY BINA ©2006 MARCH □□

ΟΙΚΟΝΟΜΙΚΟ ΠΑΝΕΠΙΣΤΗΜΙΟ ΑΘΗΝΩΝ
ΤΜΗΜΑ ΔΙΟΙΚΗΤΙΚΗΣ ΕΠΙΣΤΗΜΗΣ ΚΑΙ ΤΕΧΝΟΛΟΓΙΑΣ

ΕΡΕΥΝΑ ΓΙΑ ΤΑ ΚΙΝΗΤΑ ΣΥΜΜΕΤΟΧΗΣ ΣΕ
ΑΣΥΡΜΑΤΕΣ ΚΟΙΝΟΤΗΤΕΣ

(UNDERSTANDING MOTIVATION AND EFFORT
IN COMMUNITY-BASED WLANS)



ΜΑΡΙΑ ΜΙΝΑ
ΜΑΡΤΙΟΣ 2006

A circular logo with the word "AWAN" in a stylized, bold, yellow font with a blue outline, set against a dark background.

Thin Report Survey

Members Profile

Age

- <18 **1,3%**
- 18 - 24 **31,9%**
- 25 - 34 **52,5%**
- 35 - 49 **11,9%**
- 50 - 65 **1,3%**
- >65 **0%**

Occupation

- Student **29,4%**
- Civil Servant **4,4%**
- Company Employee **29,4%**
- Self employed **18,8%**
- Company owner **2,5%**
- Teacher **4,4%**
- Retired **0%**
- Unemployed **3,8%**
- Other **6,3%**

Education

- School **23,8%**
- Voc./Trade School **12,5%**
- Bachelor's **36,9%**
- Master's degree **29,4%**
- Doctorate deggre **6,3%**



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

