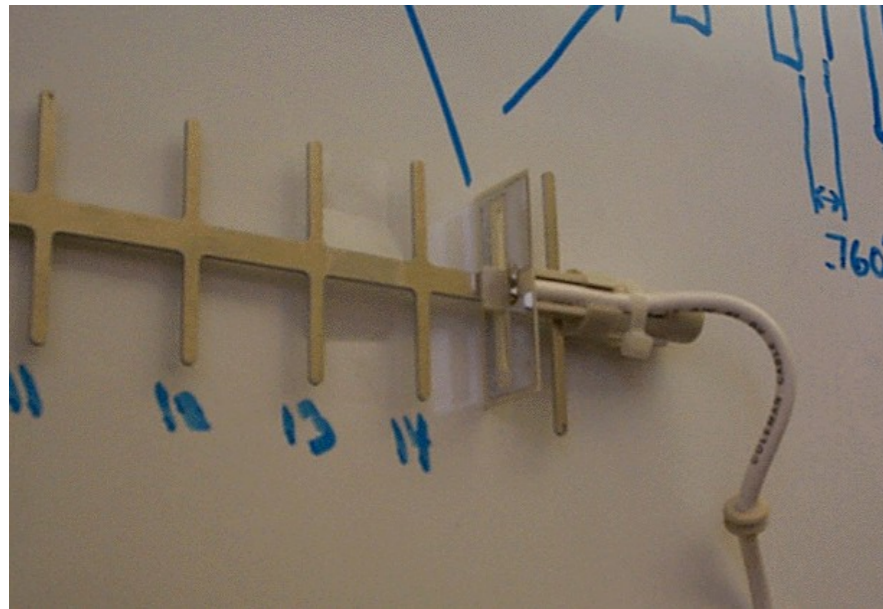
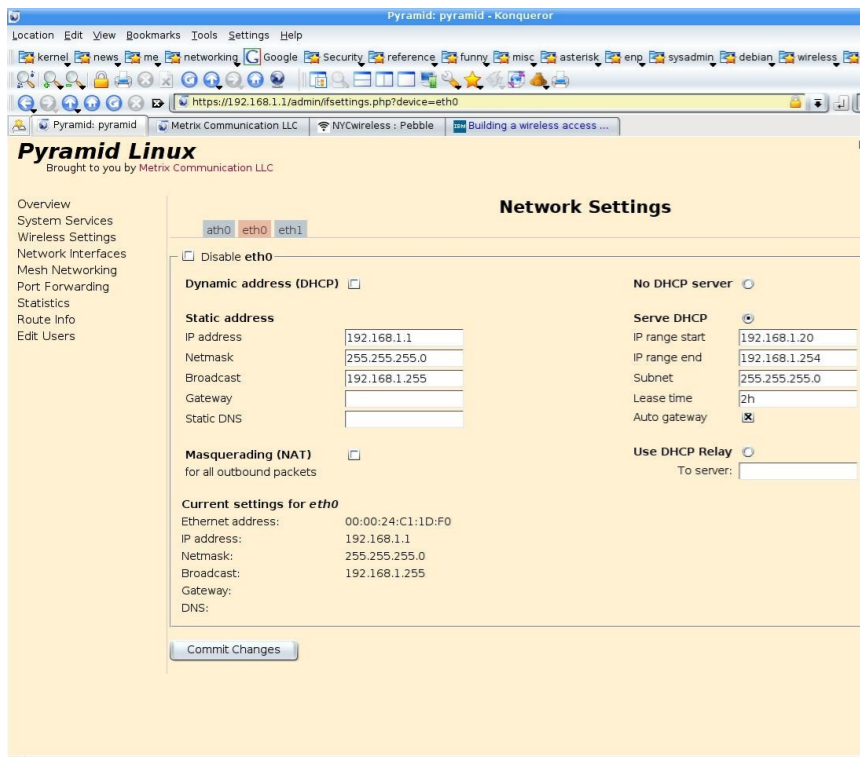


Wireless Community Networks

Claudio Pisa <clauz@ninux.org>



Seattle Wireless (2000)



Network Nodes

- Network nodes have gone through many stages:
 - PCs on the roofs
 - Self-made antennas
 - Off-the-shelf routers with modified firmware
 - routerboards
 - router+antenna in embedded devices suitable for outdoor operation



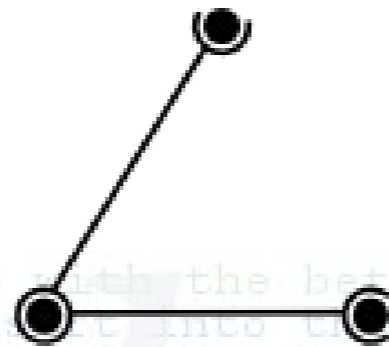
Network Nodes

- **Need for a routing protocol:**
 - **Wireless links are unstable**
- **Open firmwares:**
 - **Linux distributions on embedded devices**
 - **packages**



olsrd

an adhoc wireless mesh routing

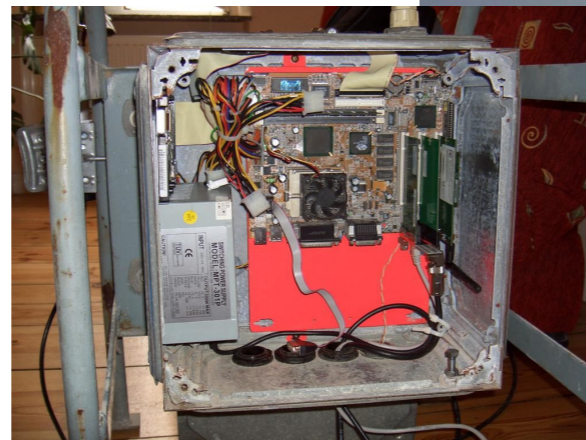
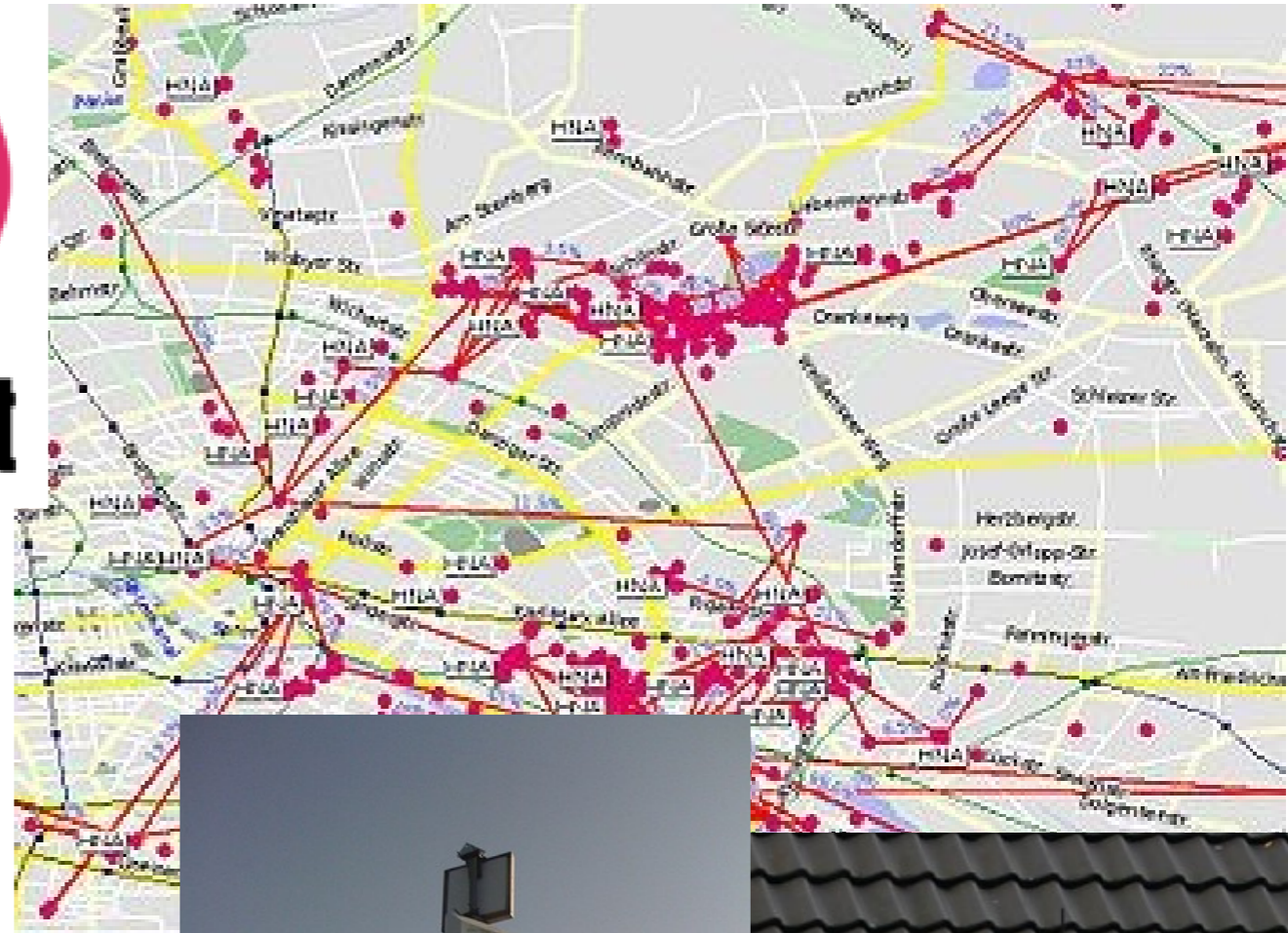


Babel

OpenWrt
Wireless Freedom

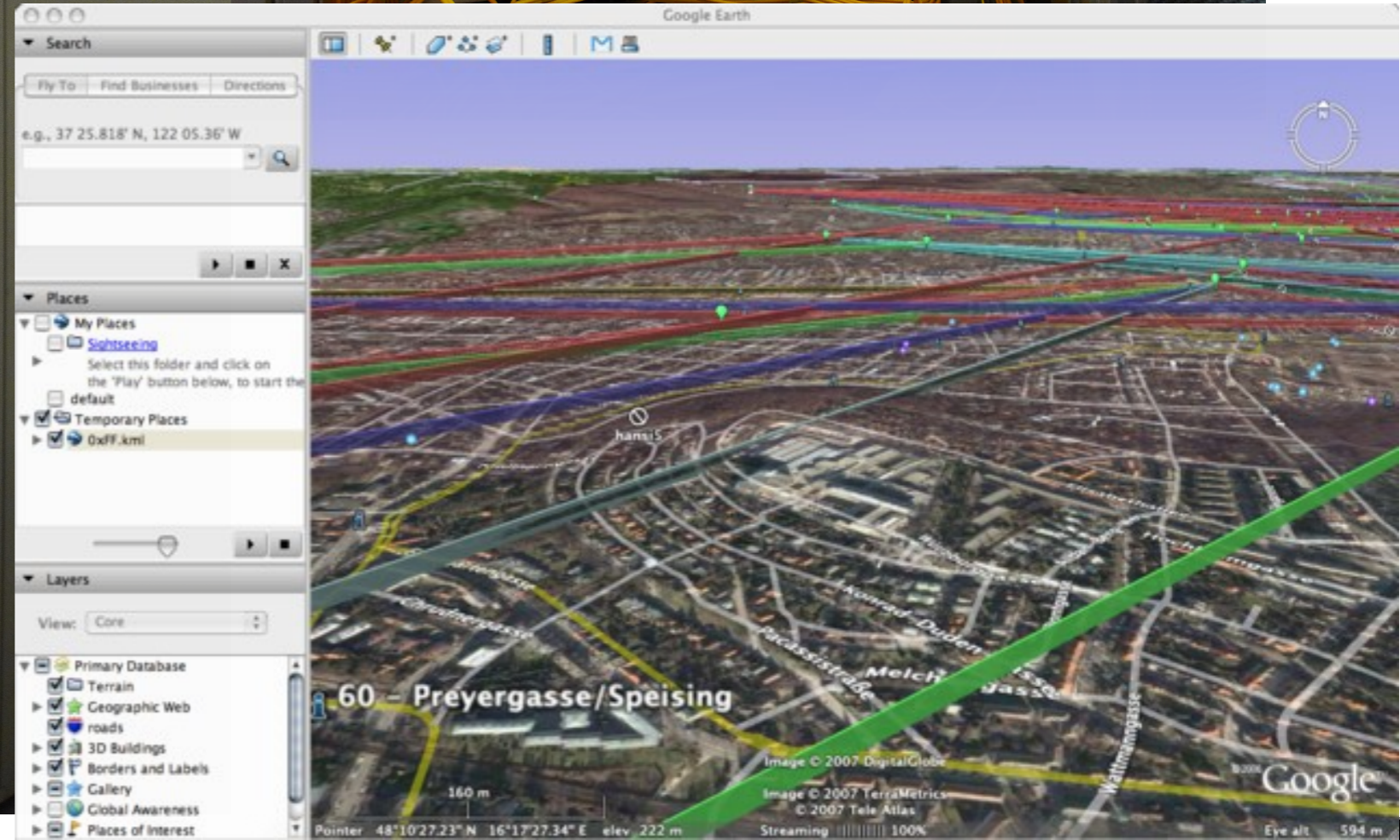
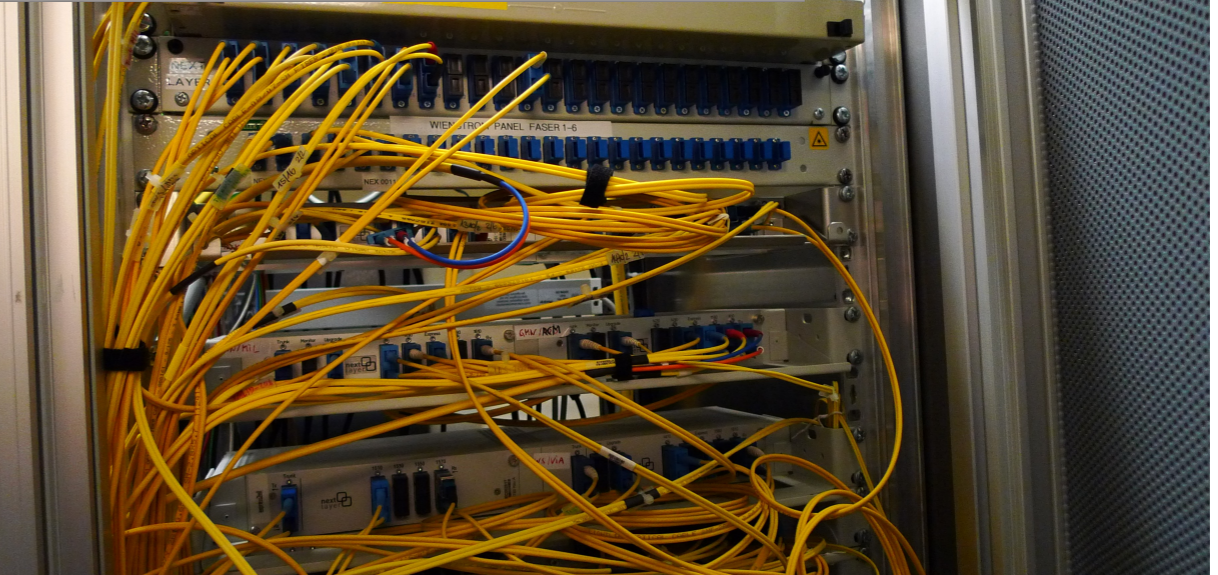
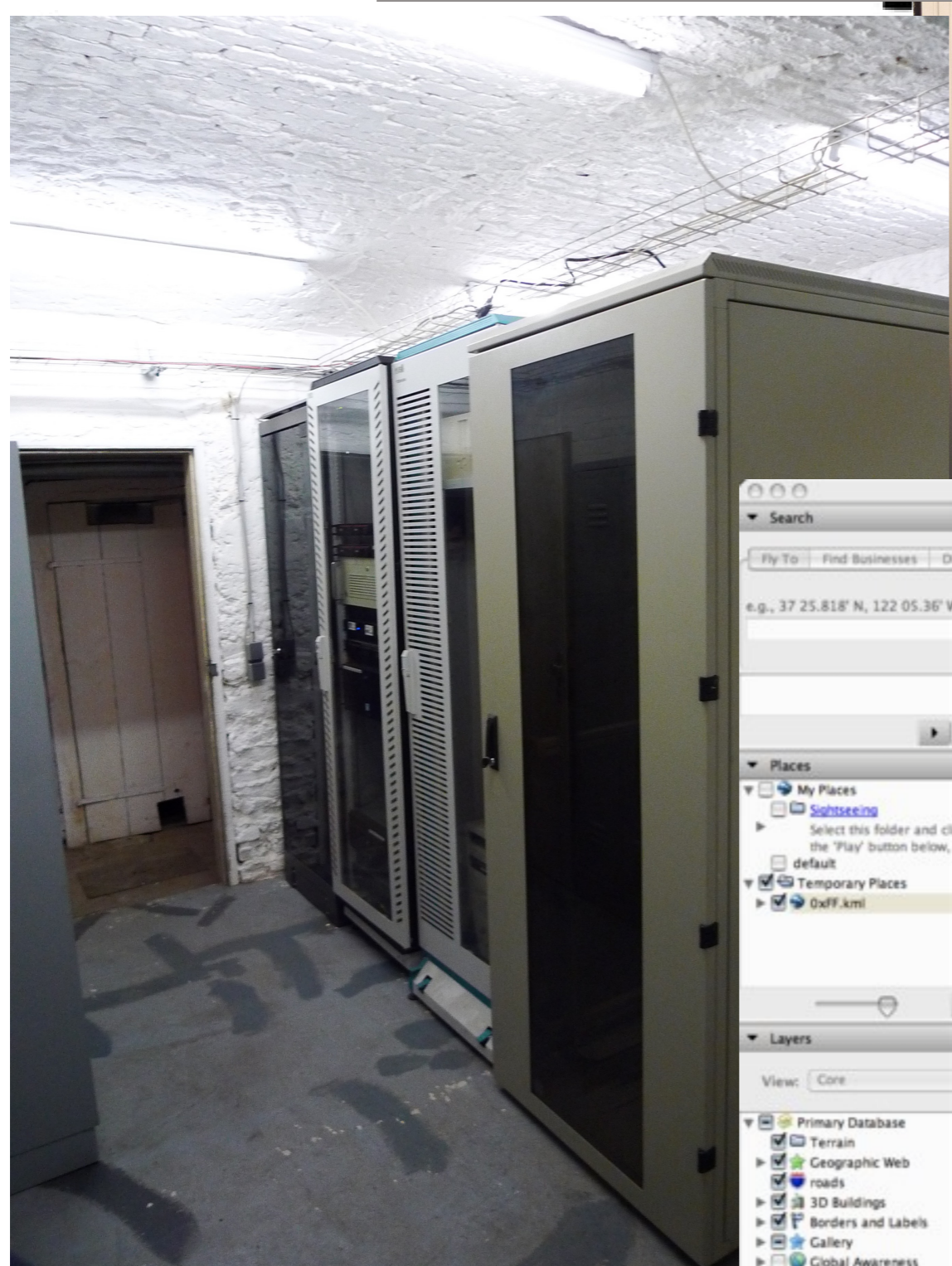
```
mmio: new SDIO card at address 0001
usb 1-1: configuration #1 chosen from 1 choice
regulator_init_complete: incomplete constraints, leaving IO_1V8 on
regulator_init_complete: incomplete constraints, leaving CORE_1V3 on
regulator_init_complete: incomplete constraints, leaving IO_3V3 on
pcf50633-rtc pcf50633-rtc: setting system clock to 2000-01-07 12:57:48 UTC (947249868)
BMI Get Target Info: Exit (ver: 0x20000059 type: 0x1)
eth0 (sdio_ar6000): not using net_device_ops yet
AR6000 Reg Code = 0x40000060
UFS: Mounted root (jffs2 filesystem) readonly on device 31:6.
Freeing init memory: 352K
Please be patient, while OpenWrt loads ...
```

Berlin + Germany – Freifunk.net

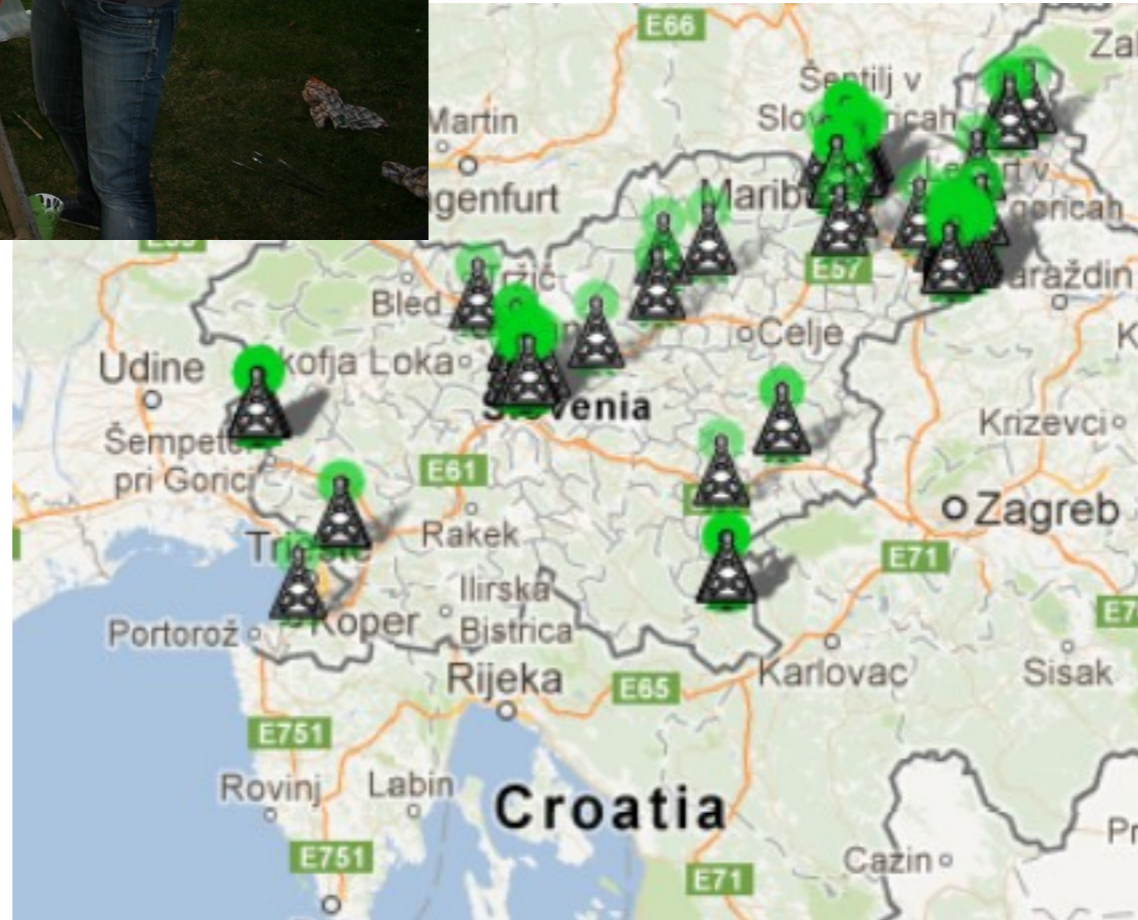


Vienna + Austria - Funkfeuer.at

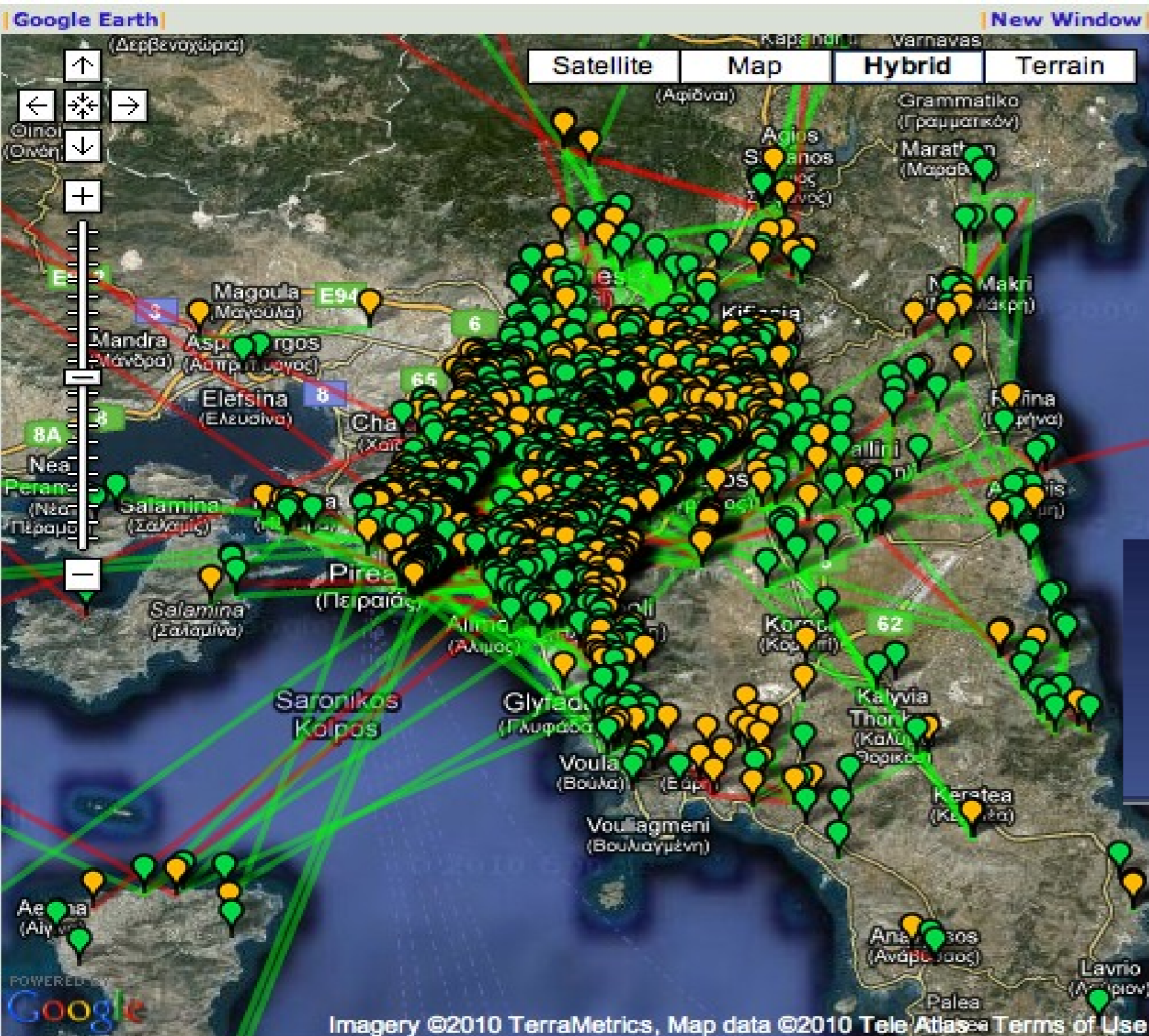
Ox FF FUNKFEUER
FREE NET



Ljubljana+Slovenija – wlan slovenija



wlan slovenija
open wireless network of Slovenia

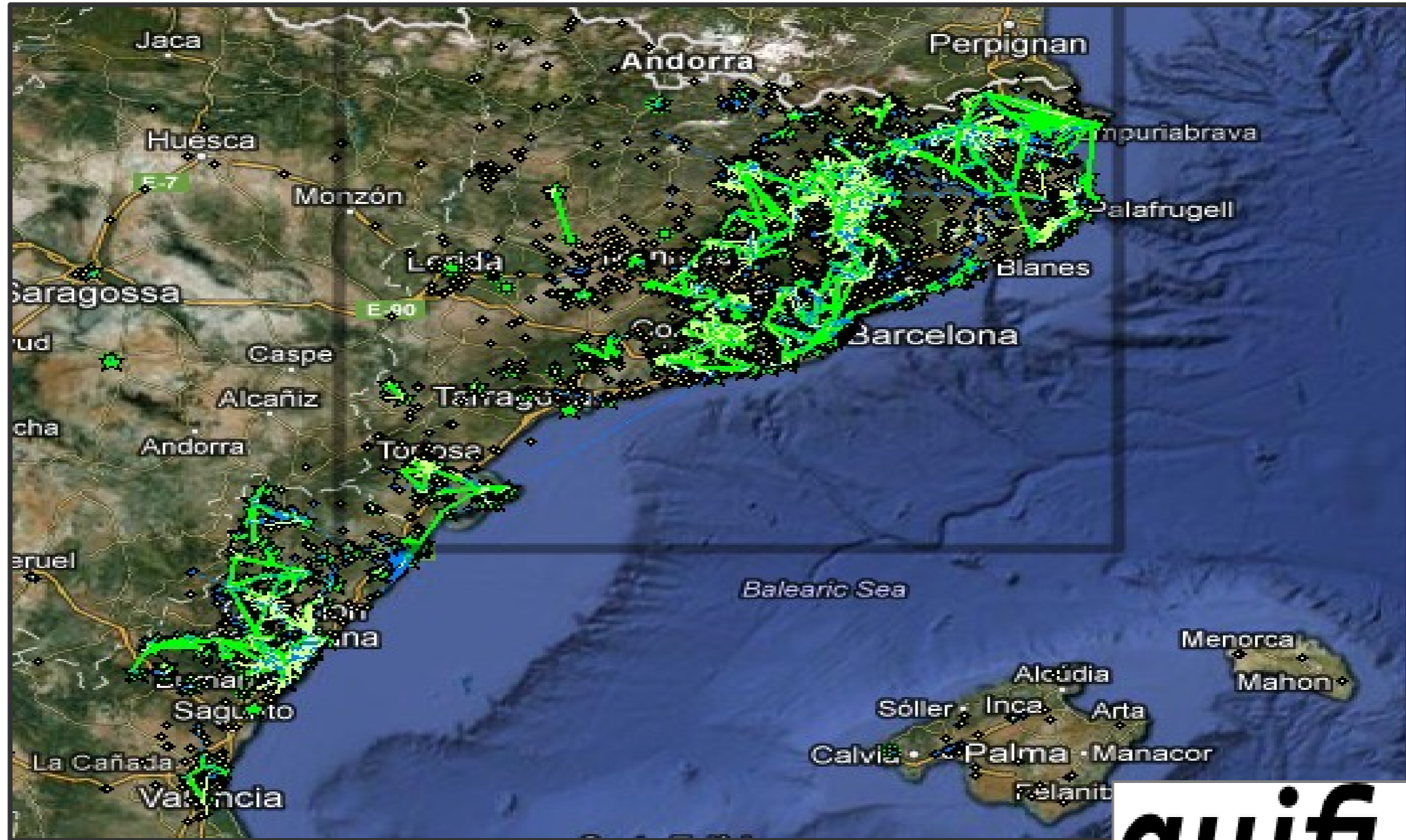


AWMN (Greece)

2394/11222 active nodes
1169 backbone nodes
2739 links
789 access points
759/834 active services



Guifi.net (Catalunya): **18.000** active nodes

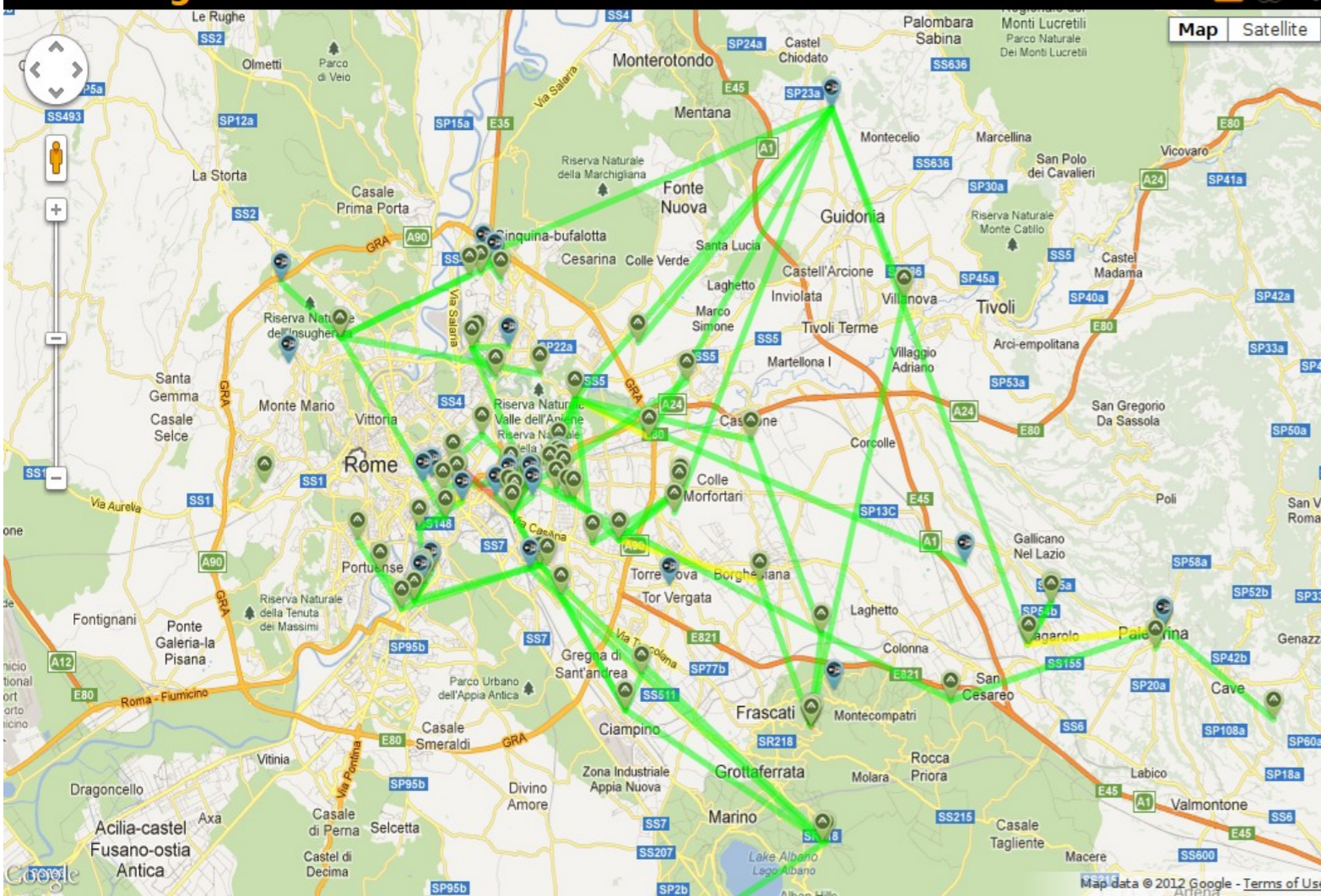






WIRELESS COMMUNITY NETWORK

map.ninux.org

Ninux.org Nodi Attivi: 141 Hotspots 39 Nodi Potenziali: 502 Link Attivi: 123 (480 km)

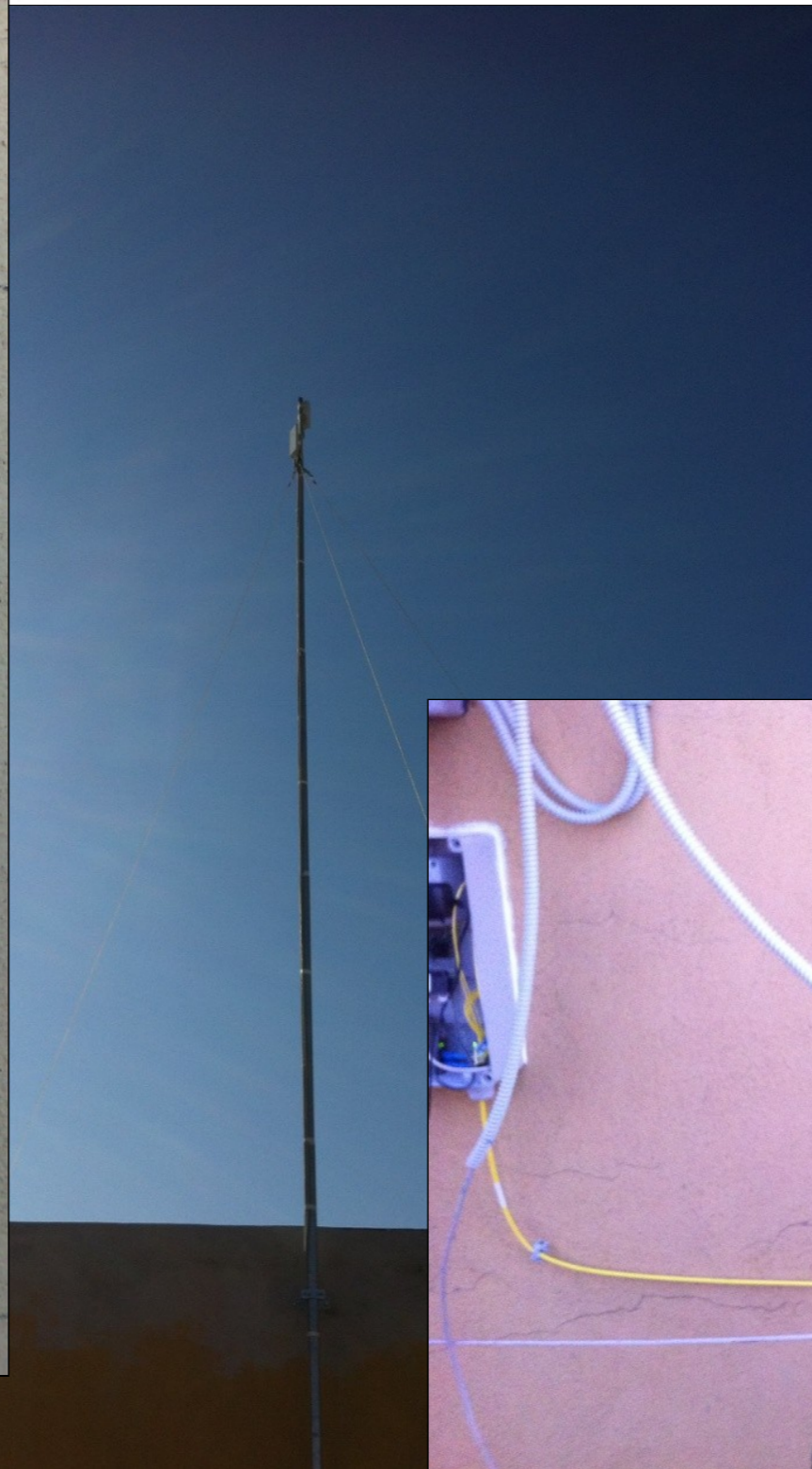




Signal Strength:  -71 dBm
Horizontal / Vertical: -73 / -75 dBm
Noise Floor: -92 dBm
Transmit CCQ: 100 %
TX/RX Rate: 180.0 Mbps / 180.0 Mbps
AirMax: Enabled
AirMax Quality:  68 %
AirMax Capacity:  55 %



IPv6 Autonomous System



- **Optical Fiber**
- **IPv6**
- **BGP (ASN 197835)**



Internal Services



XMPP

NINNU XOO!

Ricerca:

go!

Software Projects

github SOCIAL CODING

OrazioPirataDelloSpazio | Dashboard | Inbox 118 | Account Settings | Log Out

Explore GitHub | Gist | Blog | Help | Search...

ninuxorg (Ninux.org - Wireless Network Community) You are an owner of this Organization! [Edit ninuxorg's Profile](#)

Name: Ninux.org - Wireless Network Community
 Email: contatti@ninux.org
 Website/Blog: <http://www.ninux.org>
 Location: Italy
 Member Since: Feb 23, 2011

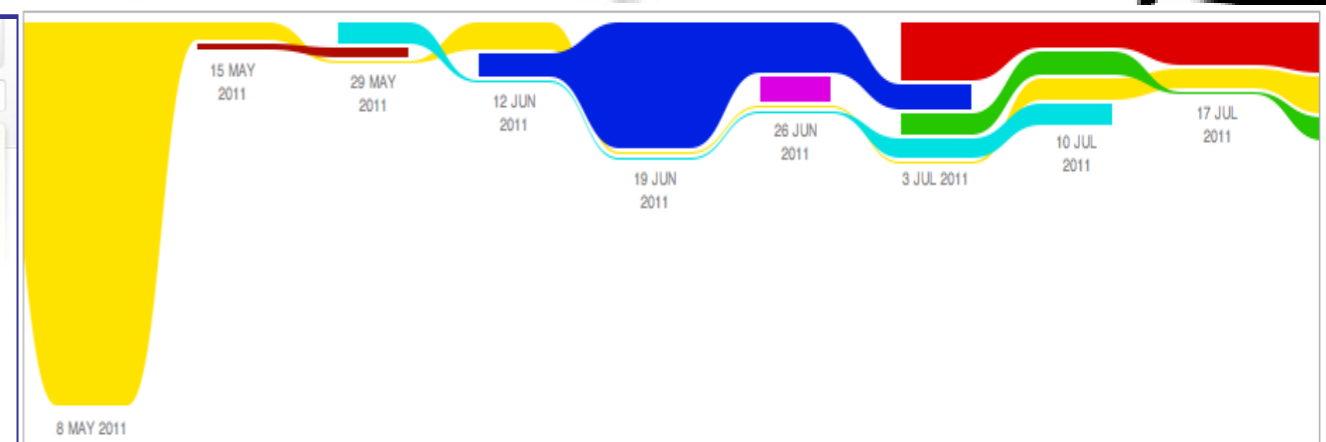
7 Public Repos | **0** Private Repos | **11** Members

Repositories (7)

Find a repository... | All Repositories | Public | Private | Sources | Forks

nodeshot JavaScript 9
 Wireless Community MapServer easy to use
 Last updated 2 days ago

ninuxoo Python 2
 Forked from c4u2/ninuu
 ninux web search engine
 Last updated November 10, 2011

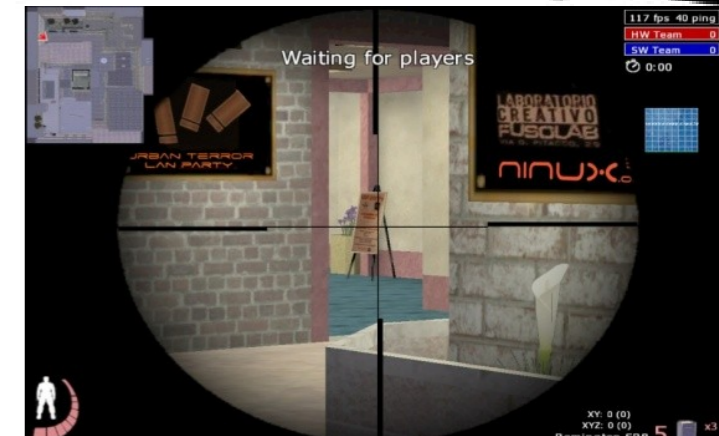


List of hosted projects

Project Name	Description
autoconf	
cafone	
facebook-bot	
freenux	Scripts to share with neighbors an ADSL connection, using packet schedulers
graphics	Misc graphic stuff of ninux
irss	A moinmoin plug-in to have an rss feed related to a page
merpa	Mesh Routing Probe Analyser
ninuxdyndns	Ninux Dynamic DNS
obamp-netkitlab	
openpursuit	A web-based nerd game using Django platform
packages/ninux-ipkg-webiftheme	Ninux.org Community Webif Theme Packag
packages/nowolfsplash	A captive portal written in LUA
packages/olrs-ninux	Olsr daemon for ninux mesh network
packages/sar	Strong Anonymous Router
packages/zzz-ninux-ipkg-<arch>	Meta package to recompile ninux firmware
pgp-pp	PGP Permanent Party
say	mDns repeater
Tracker2GMaps	Draw data sent by the TZ-GT01 on the web with Google Maps
wardriving-ng	
xtables-addons	Implementation of loose/strict source routing in kernelspace as an xtables addon



Events



LAN PARTY

OPENARENA URBANTERROR

2 DICEMBRE 2011

@FUSOLAB
Via Giorgio Pitacco, 29
ROMA (Prenestina)

inizio ore 18:00 - ingresso gratuito

ninuX.org



Wireless Community Weekend

- **Wireless Community Weekend**
 - **Yearly event**
 - **C-base, Berlin, Terra**
 - **Community networks enthusiasts**
 - **Developers**
 - **Barbecue!**



Wireless Battlemesh

- **Wireless BattleMesh**
 - **Paris, Brussels, Italy, Catalunya, Athens. Next: Denmark**
 - **Challenge between routing protocols**
 - **Developers, enthusiasts**



- www.ninux.org
- contatti@ninux.org
- map.ninux.org
- [twitter: @ninuxorg](https://twitter.com/ninuxorg)
- github.com/ninuxorg
- www.battlemesh.org
- www.freifunk.net
- www.funkfeuer.at
- www.guifi.net
- www.awmn.net
- ...

