



wlanljubljana
odprto brezžično omrežje Ljubljane

Nodewatcher

monitoring and deployment system

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wlan ljubljana – open wireless network in Ljubljana, Slovenia
<http://wlan-lj.net>



Nodewatcher

<https://nodes.wlan-lj.net>

Jernej Kos
Luka Čehovin
me

And others.

In the beginning. . .

. . .there was chaos!





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Everything by hand.

Node status.

IP allocation.

Map.

Node configuration.



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Two main problems:

Confusion for node maintainers.

Confusion for new participants.

And we do not have time, energy or users to spare.

How to make a mesh with a crew of just a few?

Along came a nodewatcher.

Automate as much as possible.

Planning.

Deployment.

Monitoring and maintenance.

Planning.

IP allocations.

Interfaces: subnets, DHCP, VPN.

Position on the map.

And other node properties.

Deployment.

Image generator.

Or just reference configuration.

Deployment.

Plug-and-mesh.

There is no web-based configuration on nodes.



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Monitoring and maintenance.

OLSR status.

Internal node status.



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Monitoring and maintenance.

HTTP, simple format.

No SNMP.



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```
general.version: 2.0b.r796
general.local_time: 1259248995
general.uptime: 1334081.18 1283631.13
general.loadavg: 0.02 0.03 0.00 1/31 7409
general.memfree: 2512
general.buffers: 0
general.cached: 2728
wifi.bssid: 02:CA:FF:EE:BA:BE
```



Extendable.

Robust.

Accessible.

Aggregation.

Analysis.

Presentation.

Monitoring and maintenance.

WAN/VPN policy.

Monitoring and maintenance.

Events.

E-mail notifications, RSS.

Nodewatcher.

Not so easy to implement.

Right.



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WAN/VPN policy for every node.

Parallelization.

Robustness.



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Future.

Documentation.

Abstract wlan ljubljana specific things.

Decentralization (VPN). Replication.

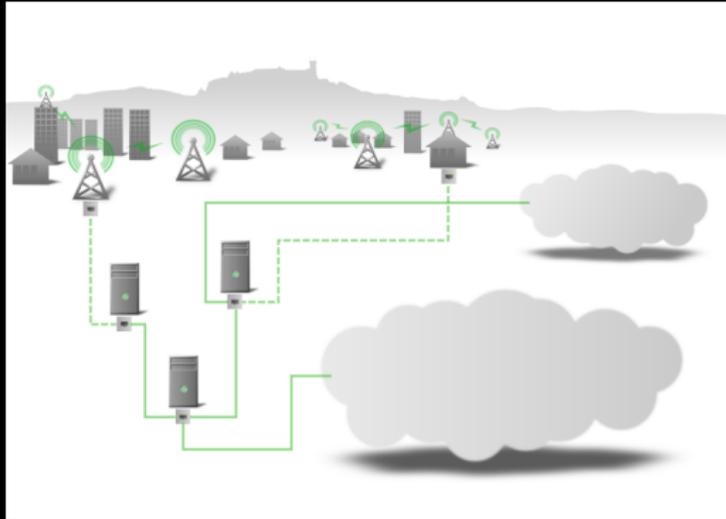
Support for other routing protocols.

Network traffic flow calculation and visualization.

A cross-platform desktop flasher application.



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Free access to knowledge and information.

Not just a network.
Network is only a tool.

Free Internet connectivity.

User experience.

Not more technical than necessary.



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But open and hackable.

A platform/framework.

You can still add web-based configuration to your node. If you want.

Example: solar node.



Future.

Mesh long and prosper!

Collaboration with other projects/networks.



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Questions?

<http://wlan-lj.net>

<https://nodes.wlan-lj.net>