wlanslovenija

open wireless network of Slovenia

odprto brezžično omrežje Slovenije

nodewatcher

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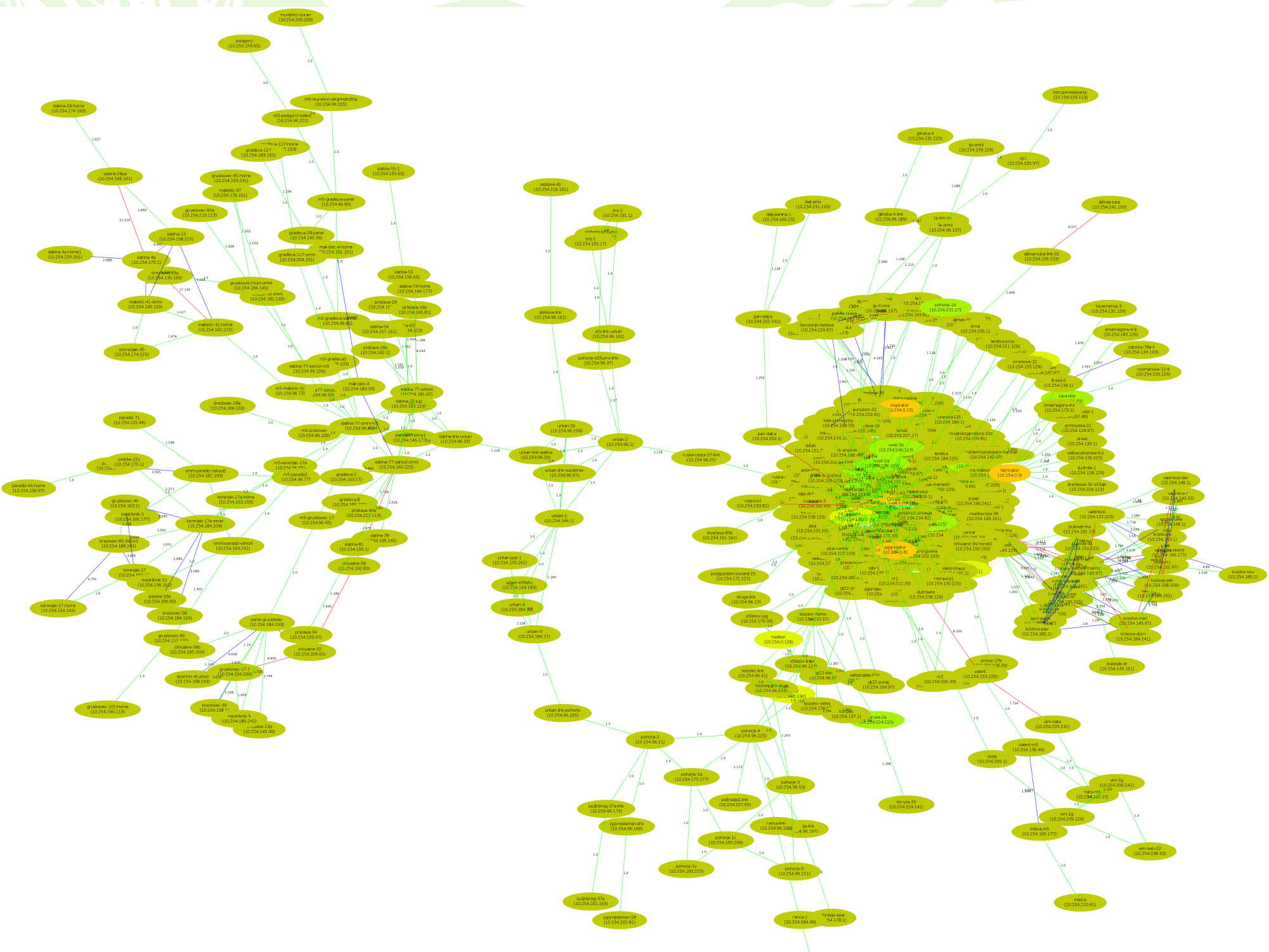
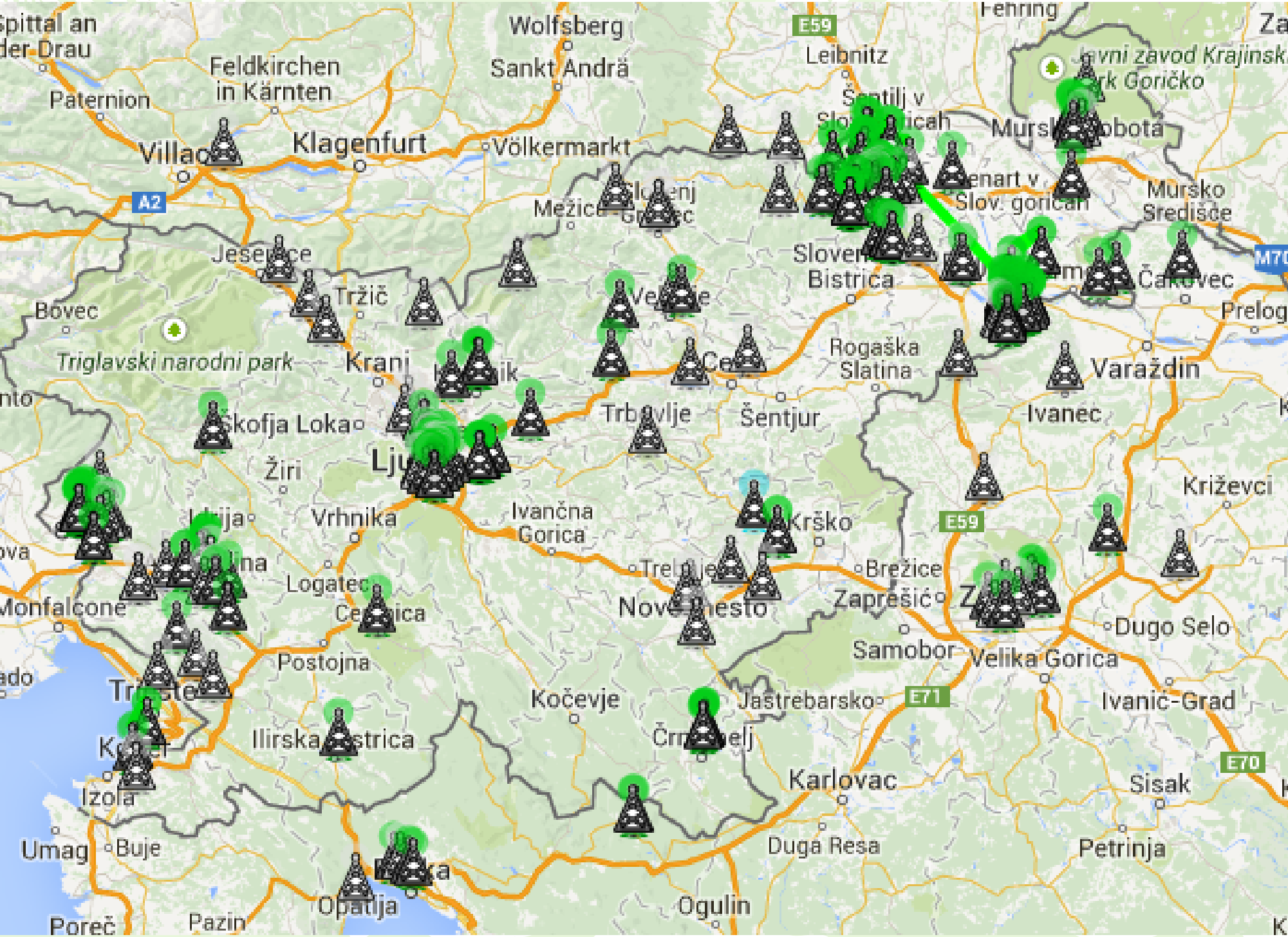
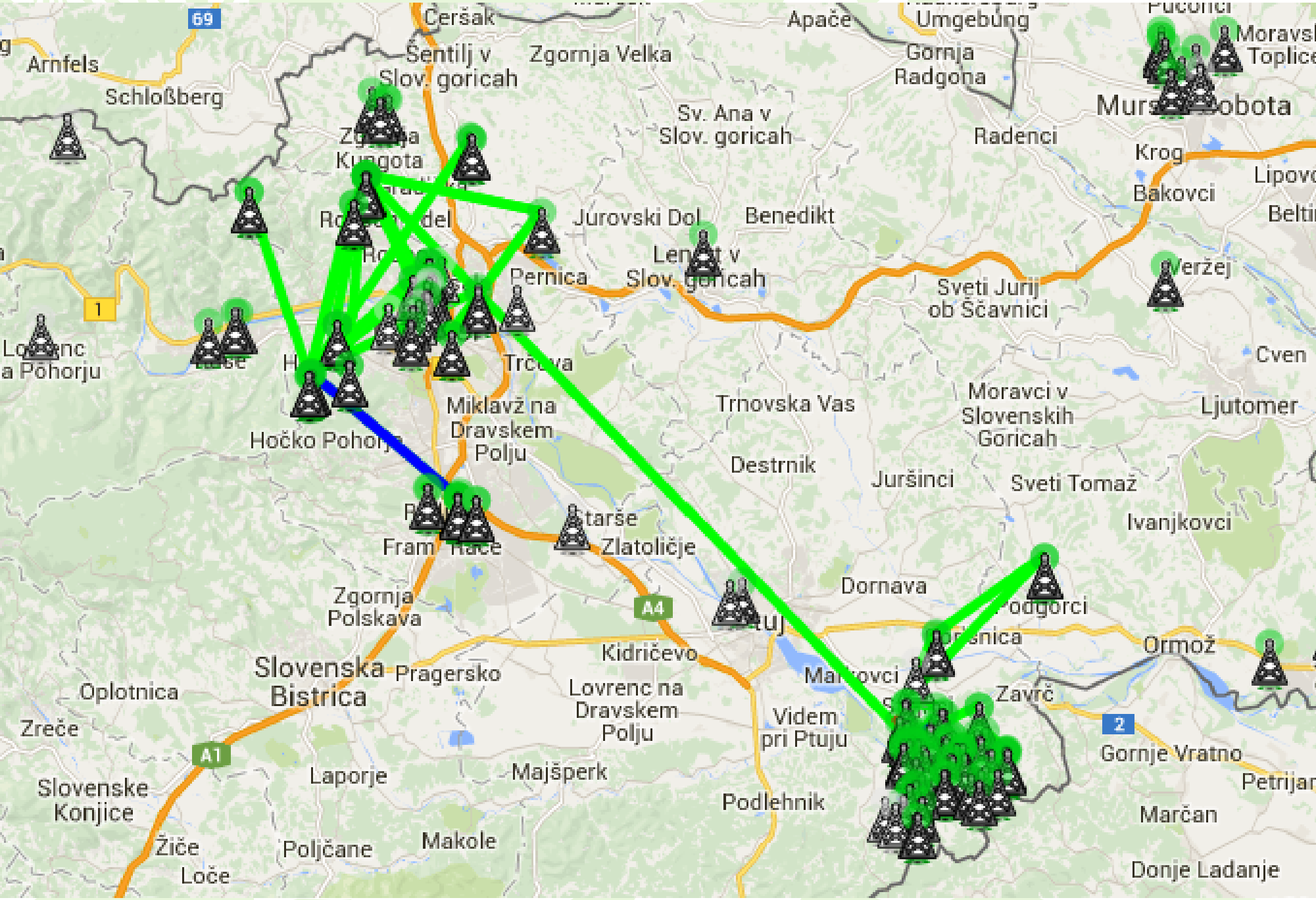
wlan slovenija – open wireless network of Slovenia
https://wlan-si.net

https://grow.wlan-si.net

https://dev.wlan-si.net




Wolfsberg
Sankt Andrä
Feldkirchen in Kärnten
Paternion
Villach
Klagenfurt
Völkermarkt
A2
E59
Leibnitz
Murska Sobota
Mursko Središče
Čakovec
Jesenice
Tržič
Bovec
Triglavski narodni park
Kranj
Škofja Loka
Žiri
Trbovlje
Šentjur
Rogaška Slatina
Varaždin
Ivanec
Križevci
Vrhnika
Ivančna Gorica
Krško
Brežice
Zaprešić
Dugo Selo
Samobor
Velika Gorica
Ivanić-Grad
Logatec
Postojna
Kočevje
Jastrebarsko
Ilirska Bistrica
Izola
Umag
Buje
Poreč
Pazin
Opatija
Karlovac
Sisak
Duga Resa
Petrinja
Ogulin
E71
E70
M70


Arnfels
Schloßberg
Šentilj v Slov. goricah
Zgornja Velka
Apače
Gornja Radgona
Sv. Ana v Slov. goricah
Radenci
Krog
Bakovci
Jurovski Dol
Benedikt
Pernica
Sveti Jurij ob Ščavnici
Trnovska Vas
Moravci v Slovenskih Goricah
Ljutomer
Destrnik
Juršinci
Sveti Tomaž
Ivanjkovci
Hočko Pohorje
Miklavž na Dravskem Polju
Zlatoličje
Zgornja Polskava
Slovenska Bistrica
Pragersko
Kidričevo
Dornava
Ormož
Oplotnica
Zreče
Lovrenc na Dravskem Polju
Videm pri Ptuju
Zavrč
Gornje Vratno
Slovenske Konjice
Laporje
Majšperk
Podlehnik
Marčan
Žiče
Poljčane
Makole
Loče
Donje Ladanje
69
1
A1
A4
2

Network management.

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Modular platform for management of
big (wireless) mesh networks.

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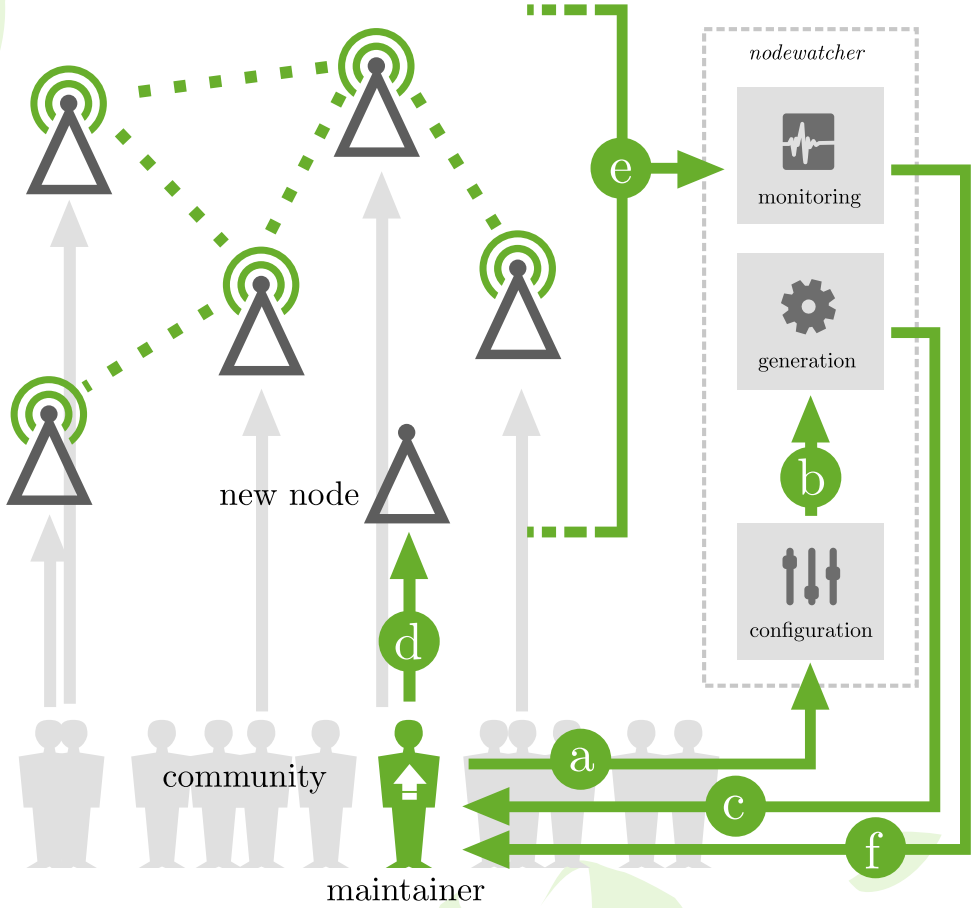


Cycle of node management.

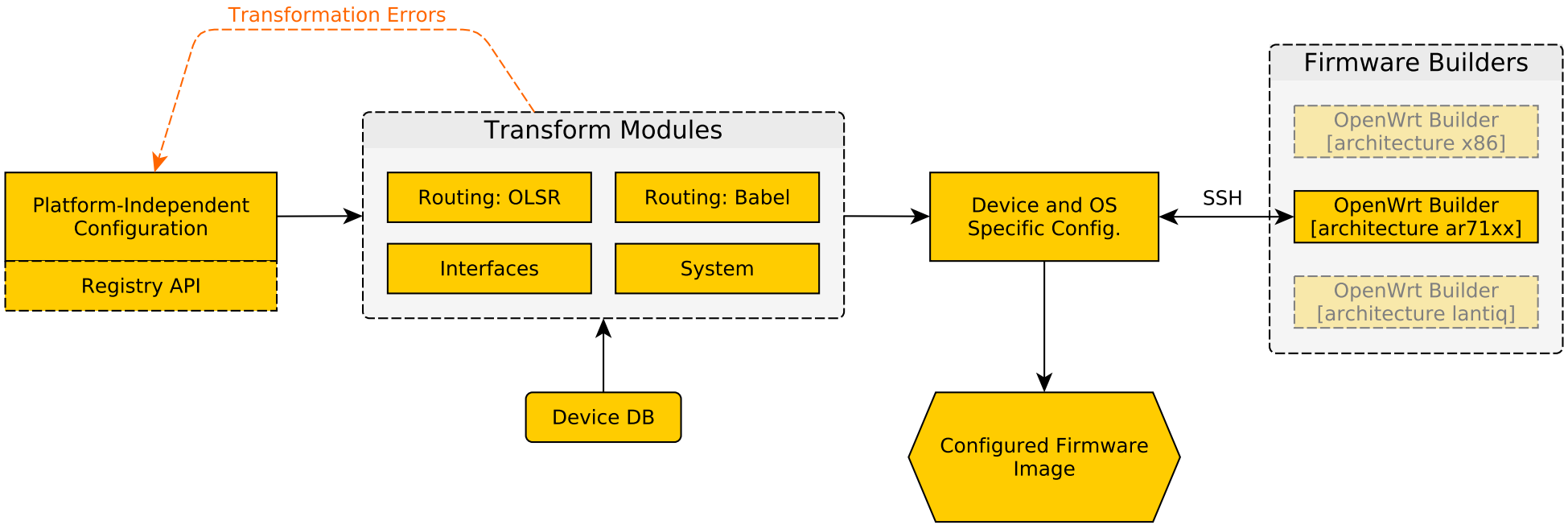
Configuration.

Platform independent.

Firmware.

Configuration transformation.

Generator.


Transformation Errors
Platform-Independent Configuration
Registry API
Transform Modules
Routing: OLSR
Routing: Babel
Interfaces
System
Device DB
Device and OS Specific Config.
SSH
Configured Firmware Image
Firmware Builders
OpenWrt Builder [architecture x86]
OpenWrt Builder [architecture ar71xx]
OpenWrt Builder [architecture lantiq]

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Monitoring.

Data.

Configuration matching.

Automatic detection of errors in the network.

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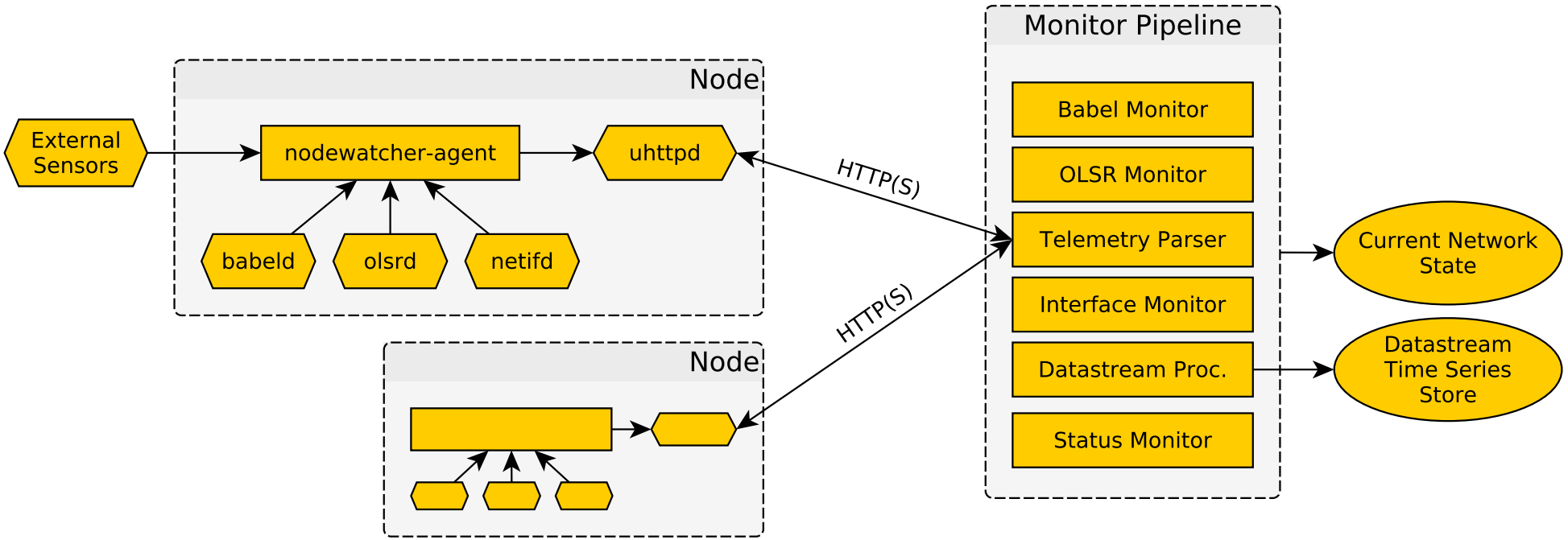
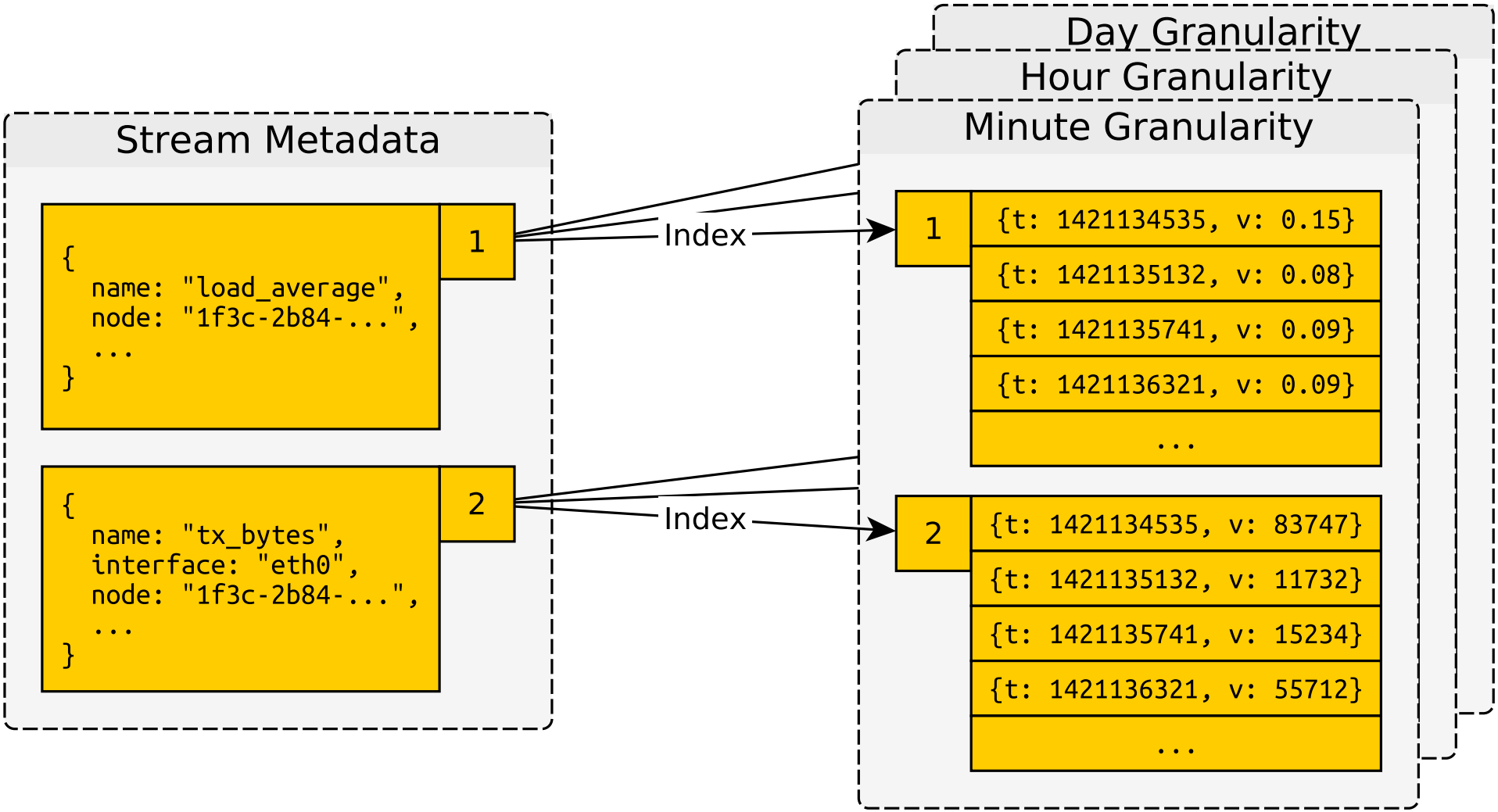
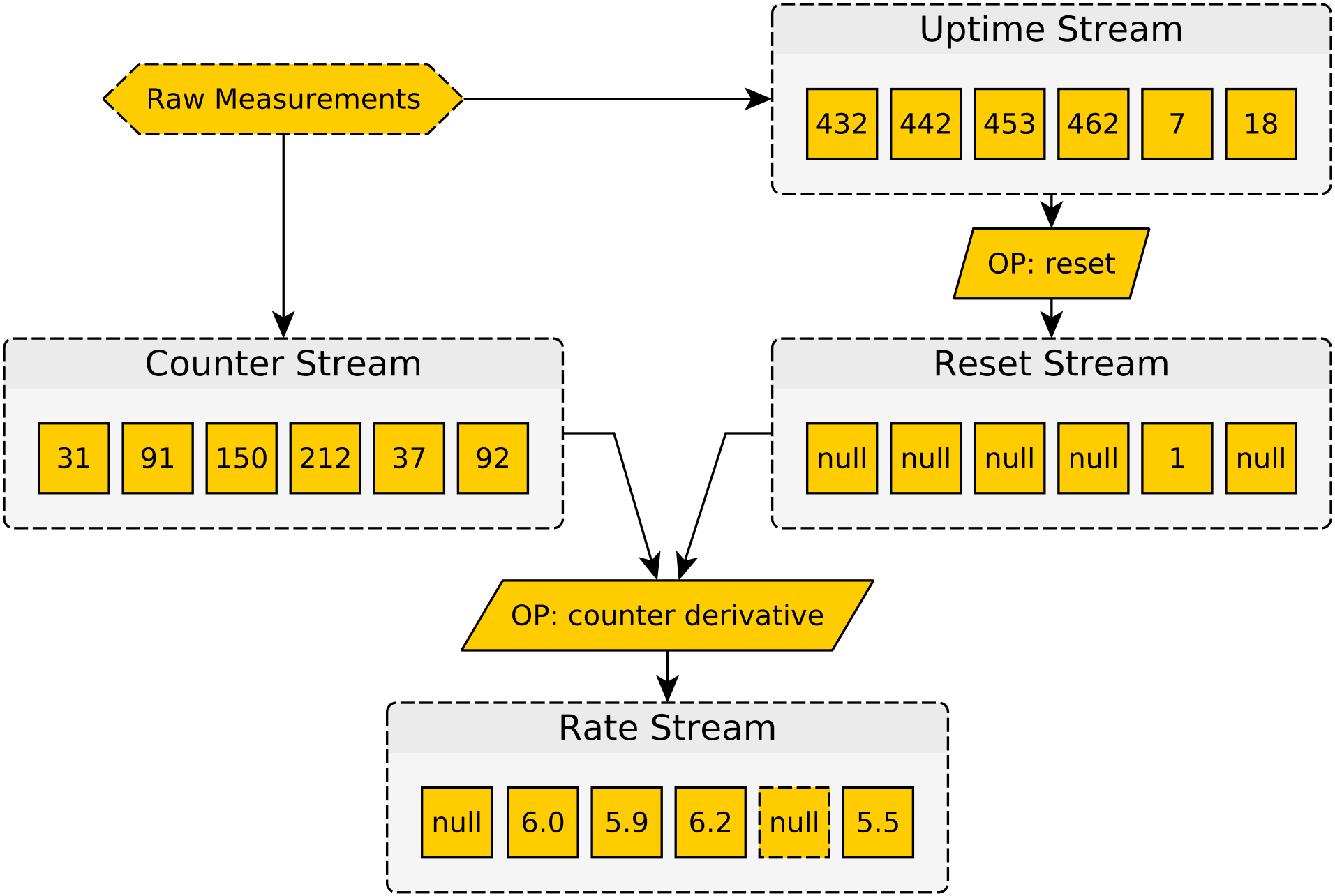
Data gathering.

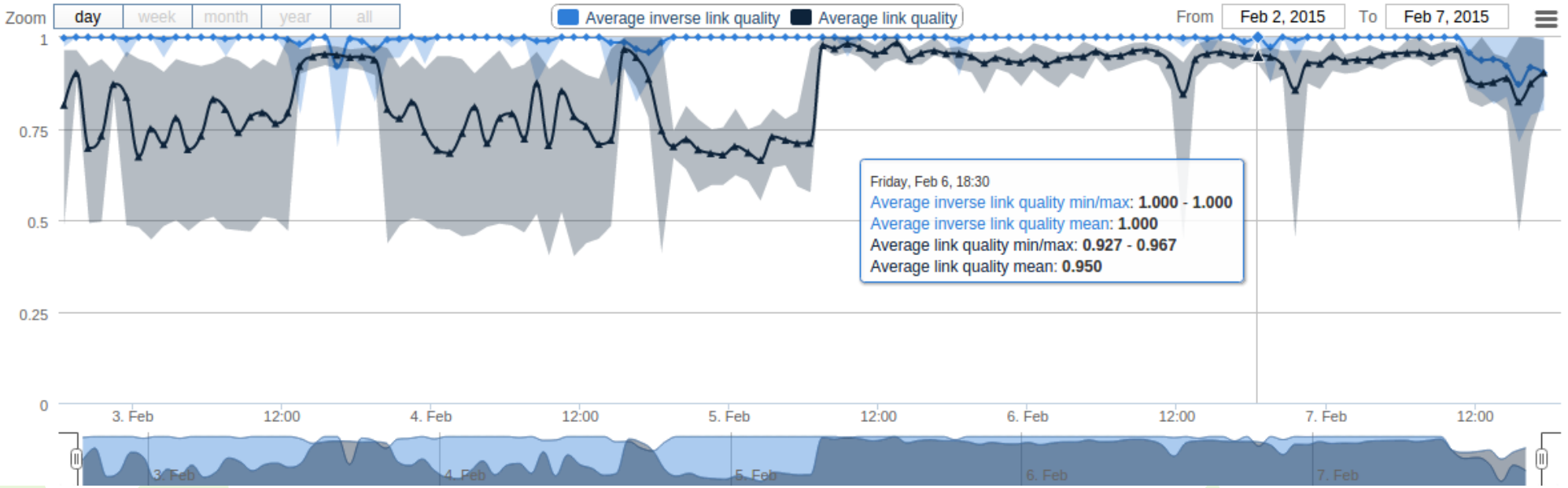
nodewatcher-agent,
SNMP,
...

Modular as well.


Node
External Sensors
nodewatcher-agent
uhttpd
babeld
olsrd
netifd
Node
HTTP(S)
HTTP(S)
Monitor Pipeline
Babel Monitor
OLSR Monitor
Telemetry Parser
Interface Monitor
Datastream Proc.
Status Monitor
Current Network State
Datastream Time Series Store


Day Granularity
Hour Granularity
Minute Granularity
Stream Metadata
{
name: "load_average",
node: "1f3c-2b84-...",
...
}
1
Index
1
{t: 1421134535, v: 0.15}
{t: 1421135132, v: 0.08}
{t: 1421135741, v: 0.09}
{t: 1421136321, v: 0.09}
...
{
name: "tx_bytes",
interface: "eth0",
node: "1f3c-2b84-...",
...
}
2
Index
2
{t: 1421134535, v: 83747}
{t: 1421135132, v: 11732}
{t: 1421135741, v: 15234}
{t: 1421136321, v: 55712}
...


Raw Measurements
Uptime Stream
432
442
453
462
7
18
OP: reset
Counter Stream
31
91
150
212
37
92
Reset Stream
null
null
null
null
1
null
OP: counter derivative
Rate Stream
null
6.0
5.9
6.2
null
5.5


Zoom
day
week
month
year
all
Average inverse link quality
Average link quality
From
Feb 2, 2015
To
Feb 7, 2015
1
0.75
0.5
0.25
0
Friday, Feb 6, 18:30
Average inverse link quality min/max: 1.000 - 1.000
Average inverse link quality mean: 1.000
Average link quality min/max: 0.927 - 0.967
Average link quality mean: 0.950
3. Feb
12:00
4. Feb
12:00
5. Feb
12:00
6. Feb
12:00
7. Feb
12:00

Not all only wirelessly.

Tunneldigger

...why not OpenVPN?

L2TPv3 broker and client.

Tunneldigger. Layer 2 pseudo-wire.

Context switch, copying.
L2TPv3 support in Linux kernel.

NAT, PMTU, ...

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