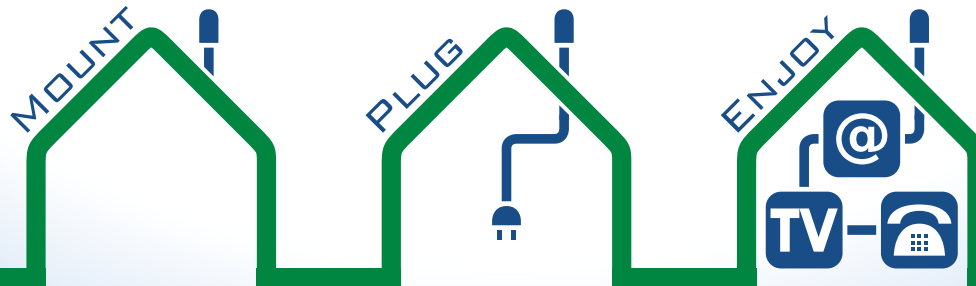




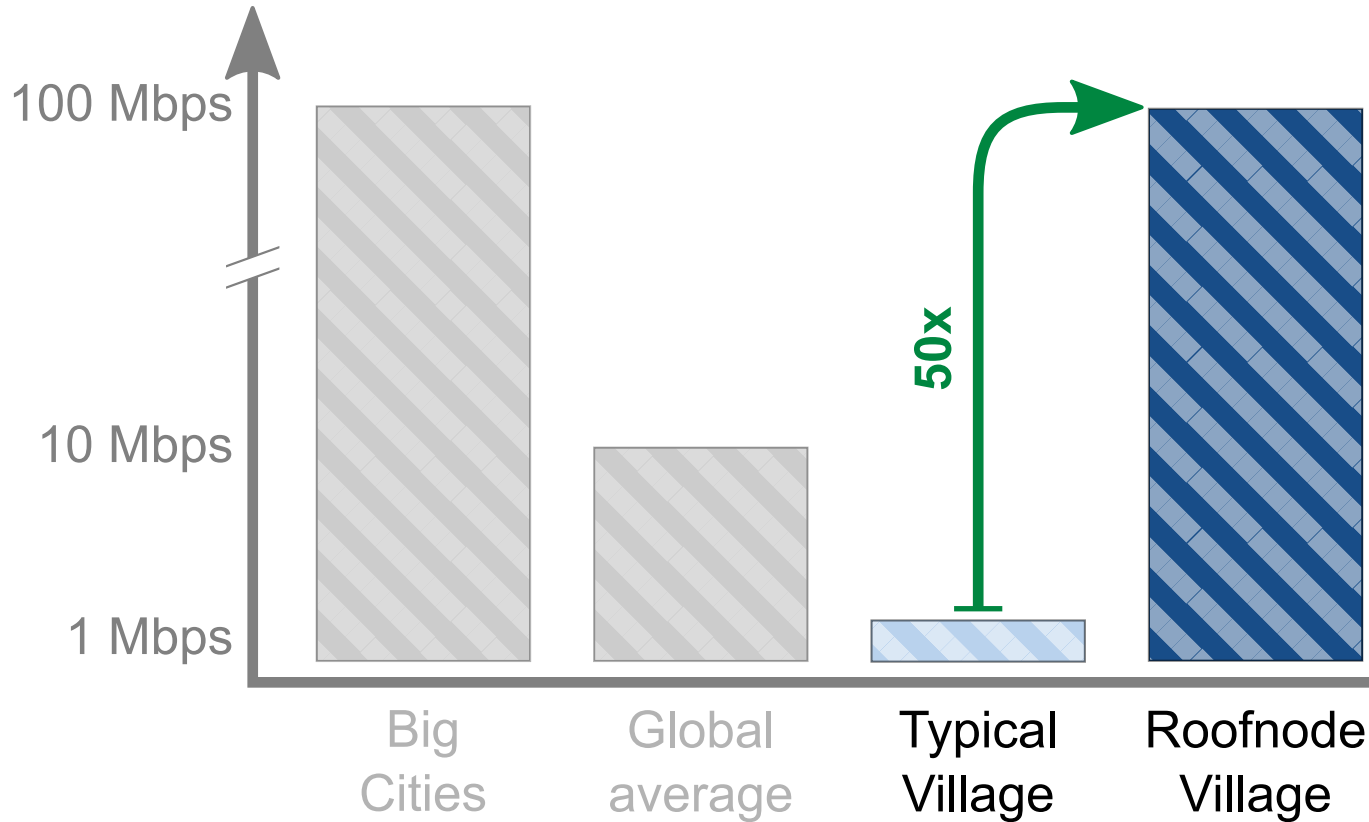
meets WBMv6

info@roofnode.com



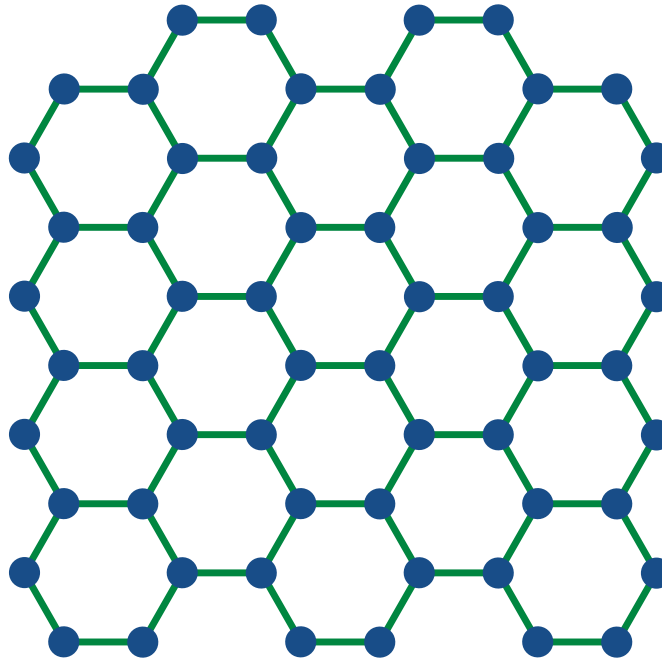
Problem:

Slow-speed Internet in rural areas



Solution:

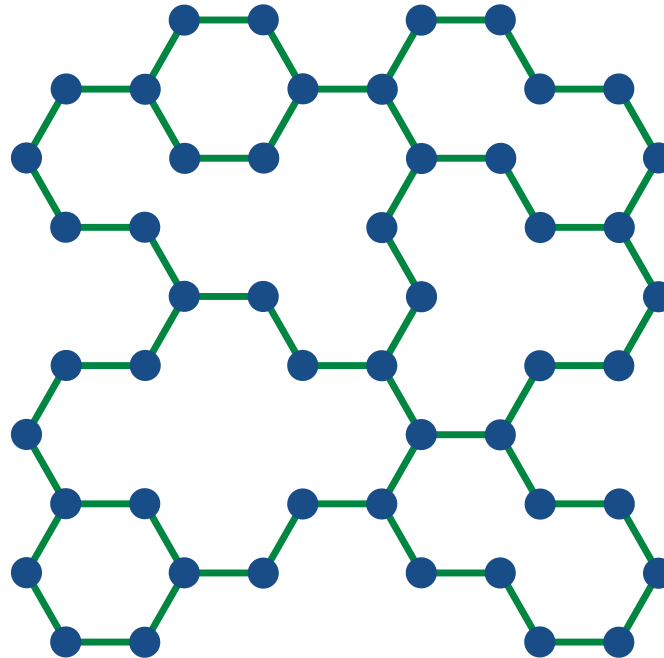
Roofnode point-to-point mesh



Theory

Solution:

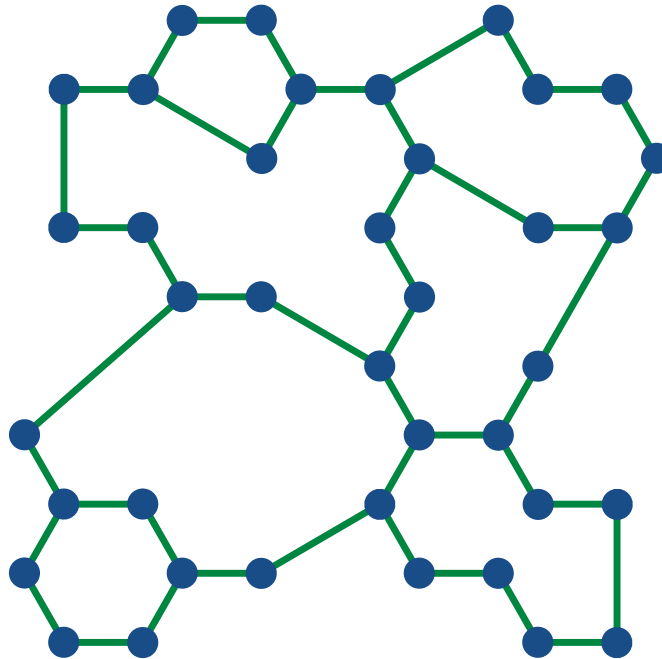
Roofnode point-to-point mesh



More realistic

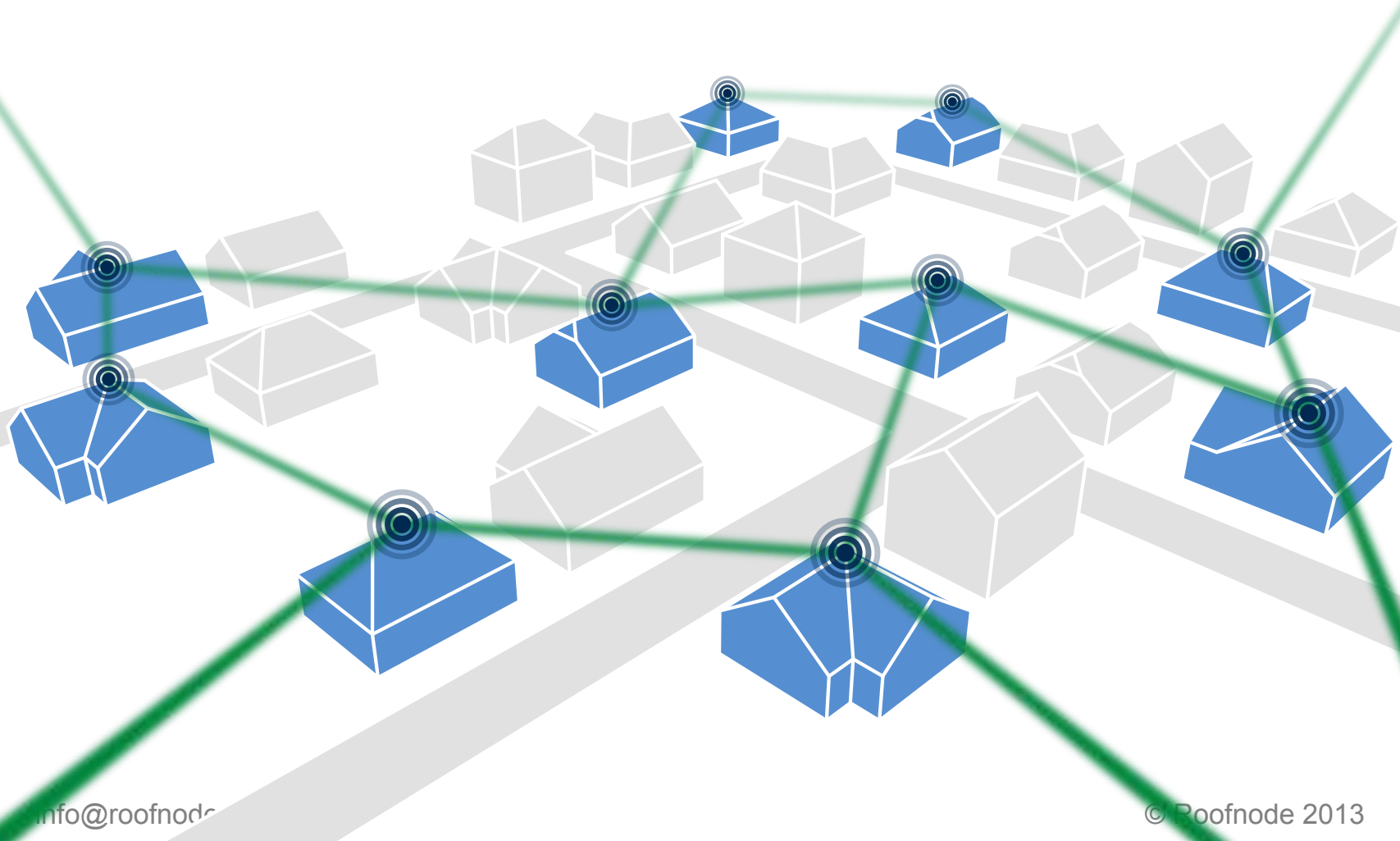
Solution:

Roofnode point-to-point mesh



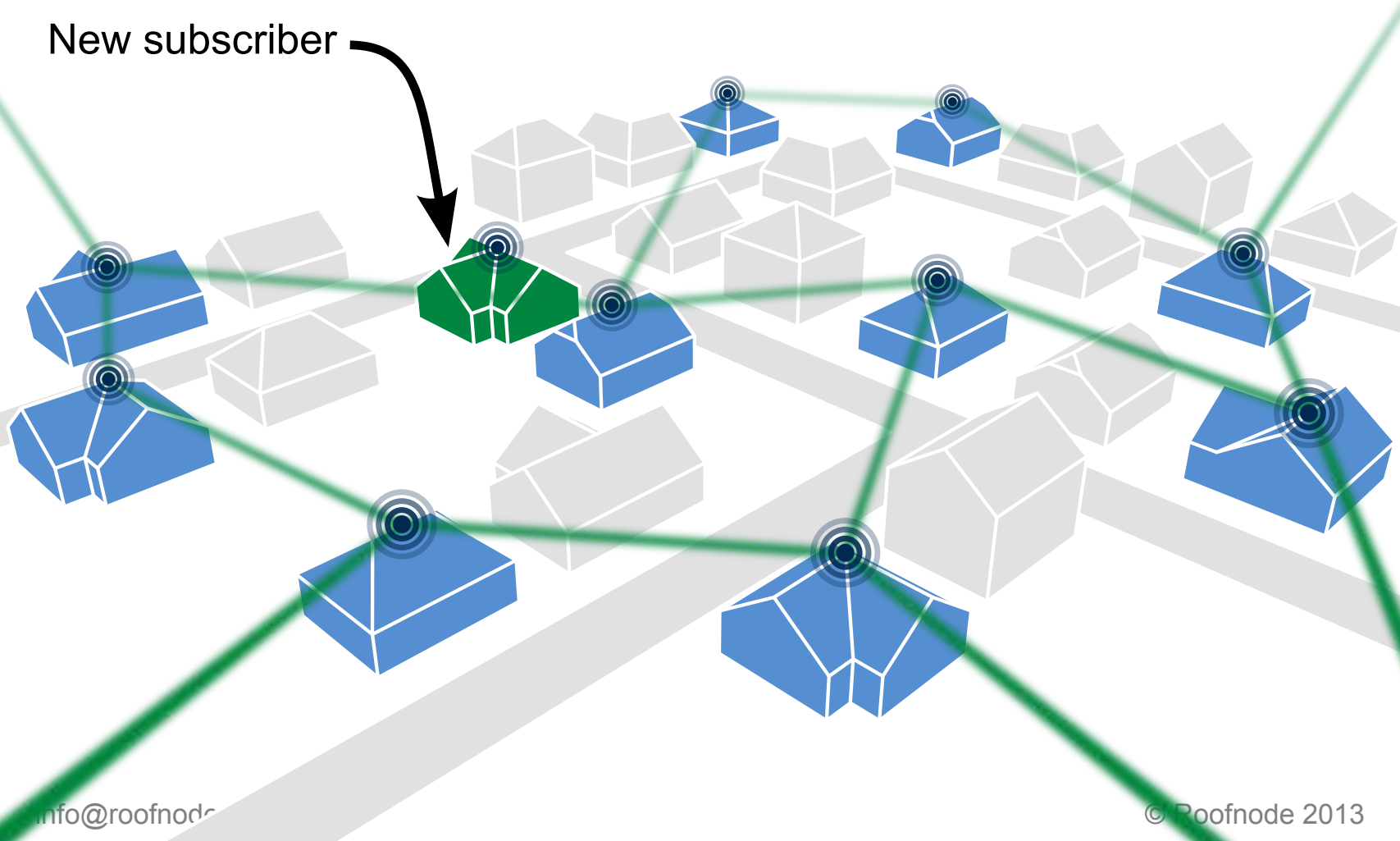
Much more realistic

Roofnode concept applied to a village

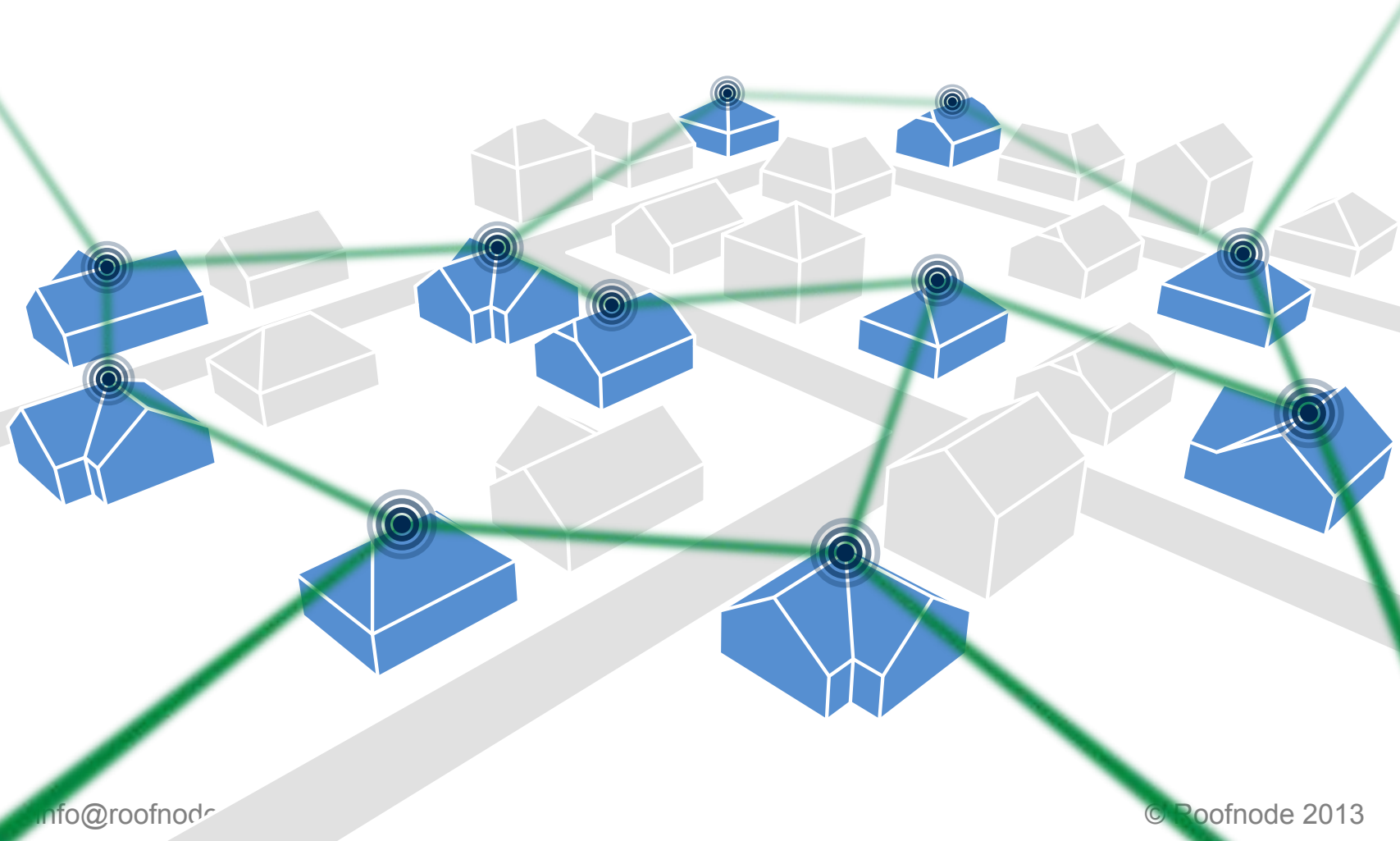


To connect a new subscriber ...

New subscriber



... neighboring nodes realign their directional antennas towards the new node



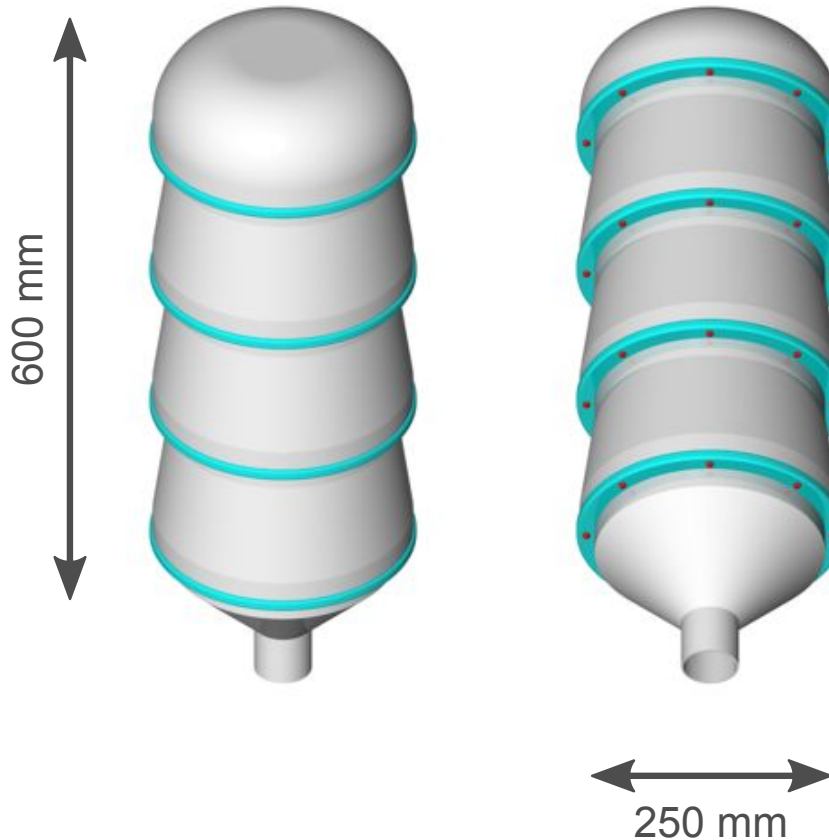
Early prototype used in field test



Improved prototype (never deployed)



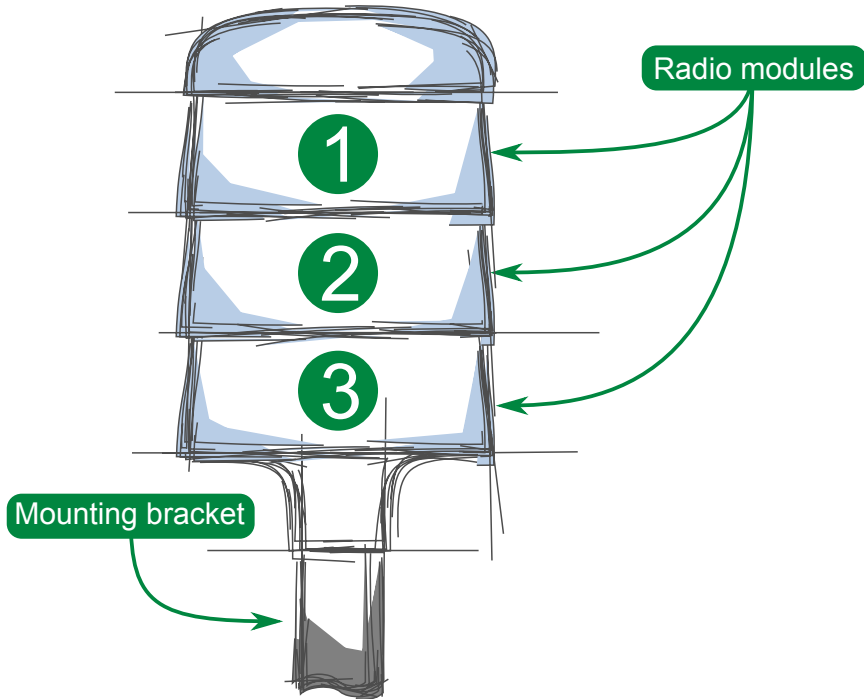
Design and realization of the new prototype



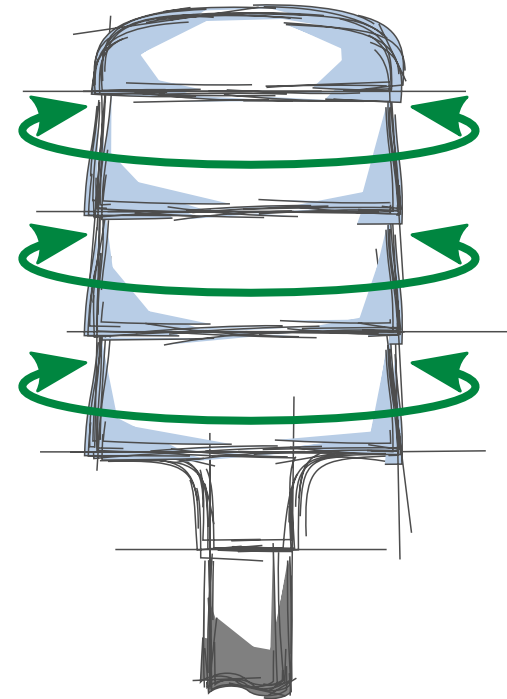
Has been used in IDIRA project as well
(www.idira.eu)



Based on three 5GHz directional radio modules

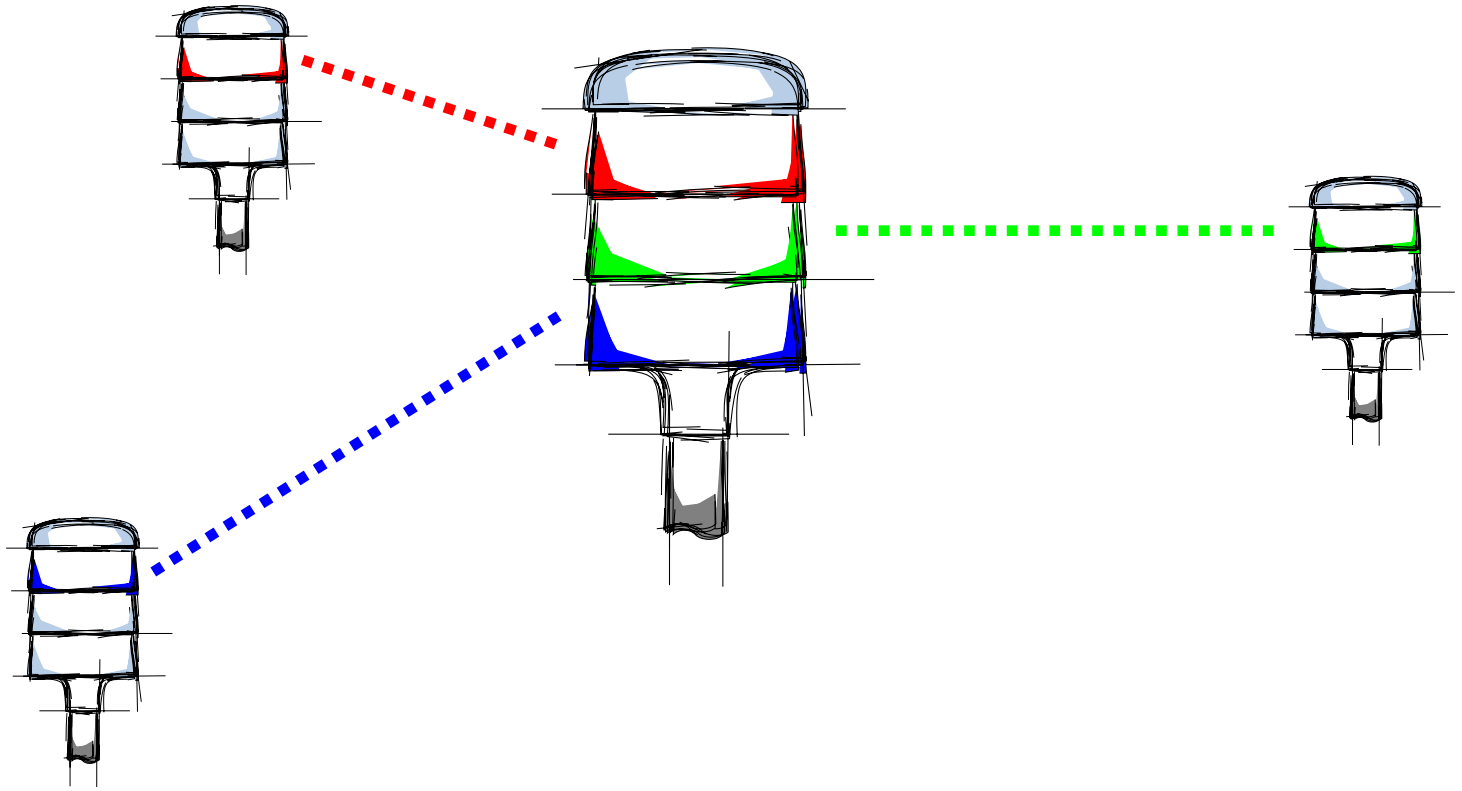


three independent
radio modules

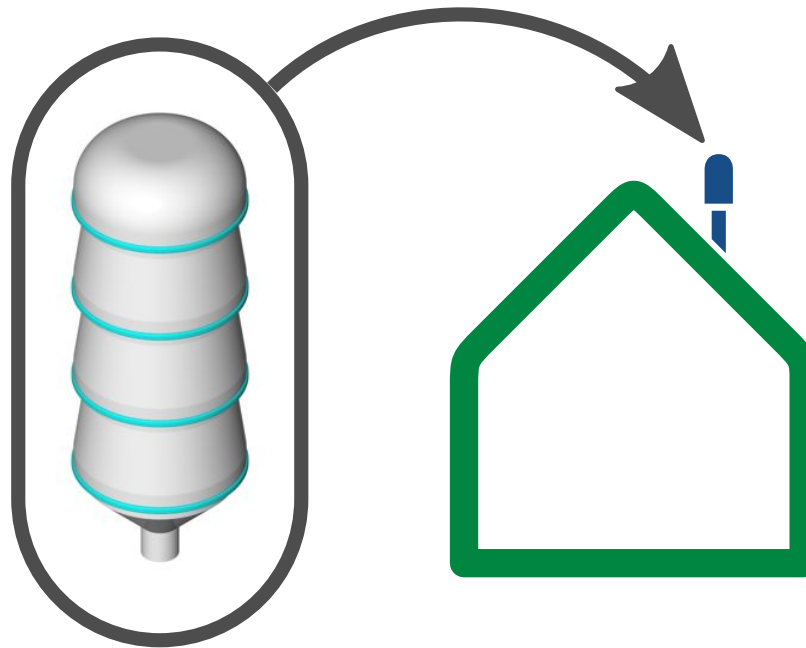


with motorized
directional antennas

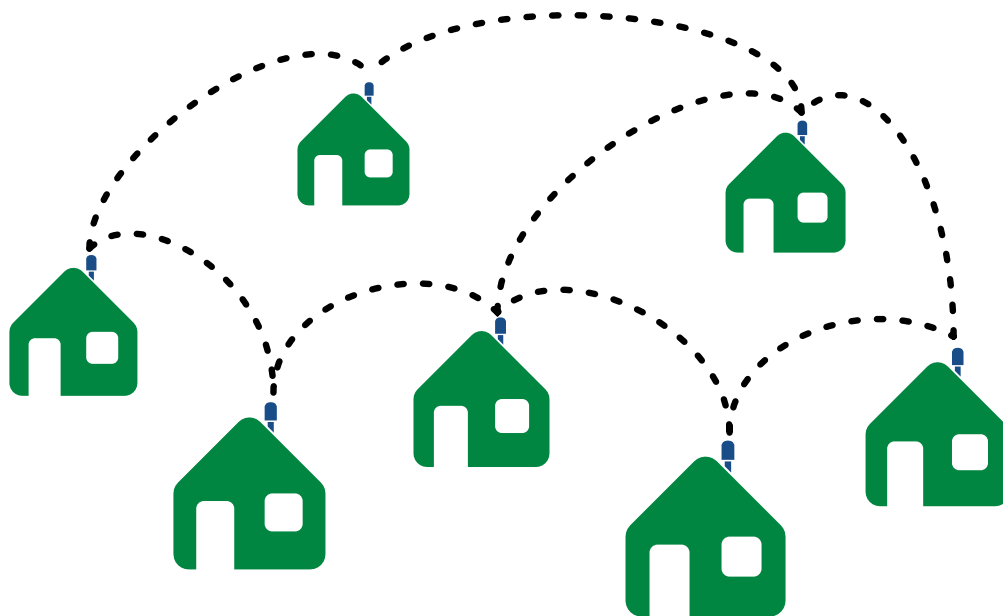
Each radio module connects to a nearby node by rotating its directional antenna



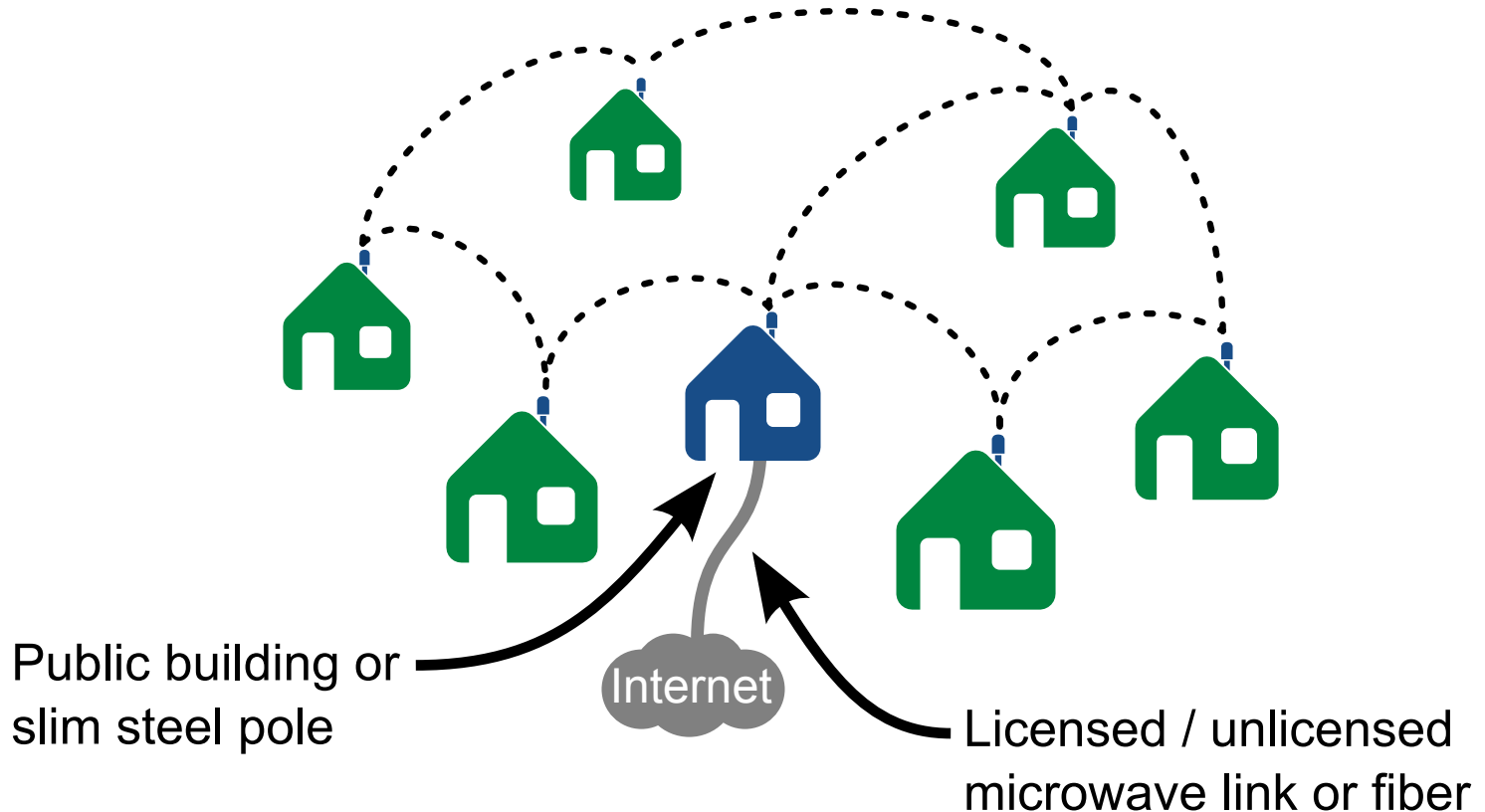
In industrial countries the nodes are installed on the subscribers rooftop



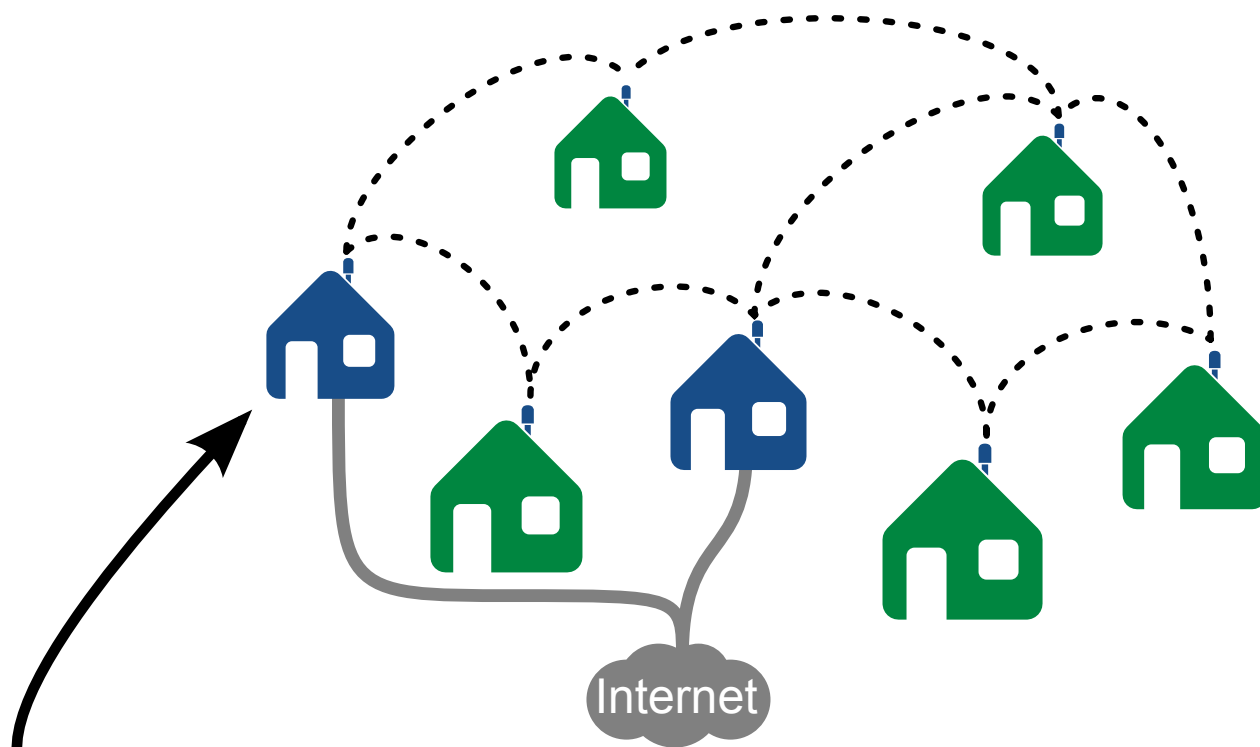
This enables up to 100Mbps up- and download in every connected household



At least one node is connected
to an upstream provider

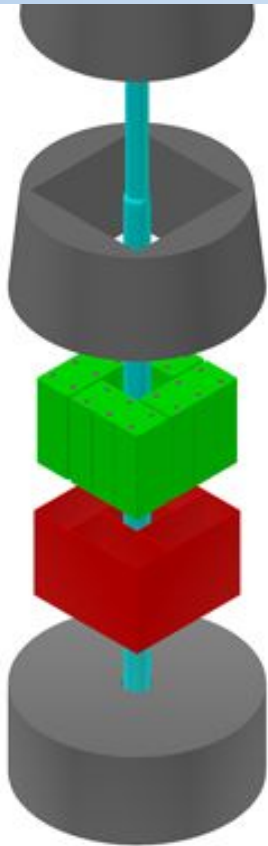


Further gateways can be added on demand



Adds 300Mbps lasting
for 50 to 200 subscribers

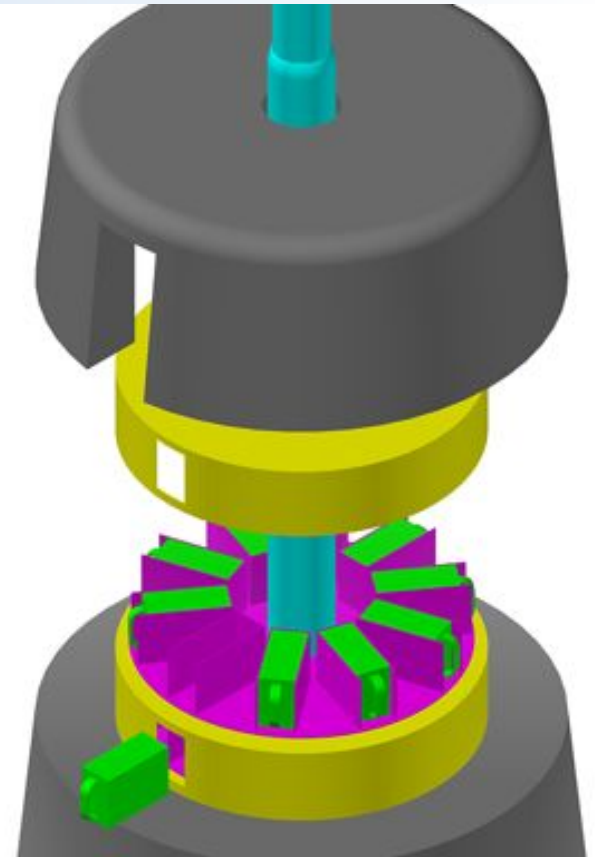
In emerging or third world countries the nodes can be installed on easy-to-deploy masts to ...



Concrete socket
+ Battery bank
(vandalism-proof)



Roofnode on top
+ solar power
+ WiFi hotspot



Battery changer for
powering subscriber
equipment at home

... enable cheap WiFi Internet access, based on a high-performance Roofnode backbone



Overview of the different fields of applications

Rural areas in industrial countries

- 300 million people (countryside)
- Focus on villages and towns from 500 to 10.000 people
- Standard product version (maximum bandwidth)

Rural areas in emerging countries

- 2.4 billion people (countryside)
- Focus on minimizing price instead of maximizing bandwidth
- Special product version (solar powered, mobile coverage)

Temporary usage

- Open-Air events
- Disaster relief
- Construction sites



thanks WBMv6

info@roofnode.com

