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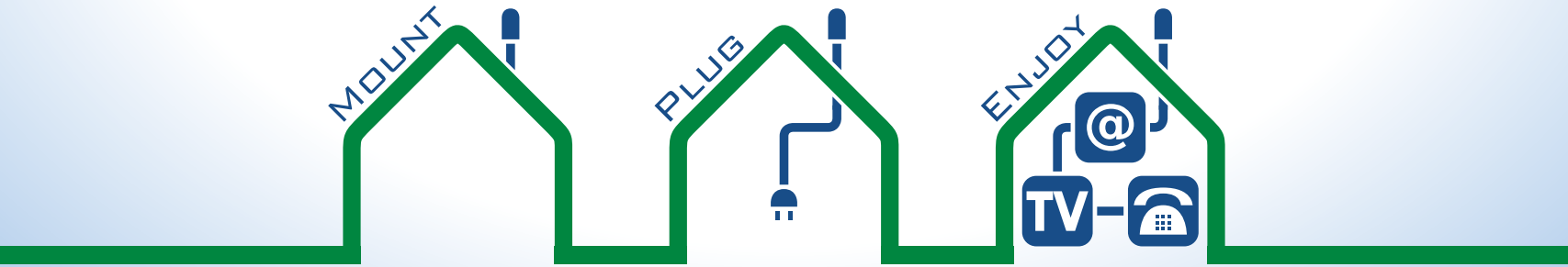
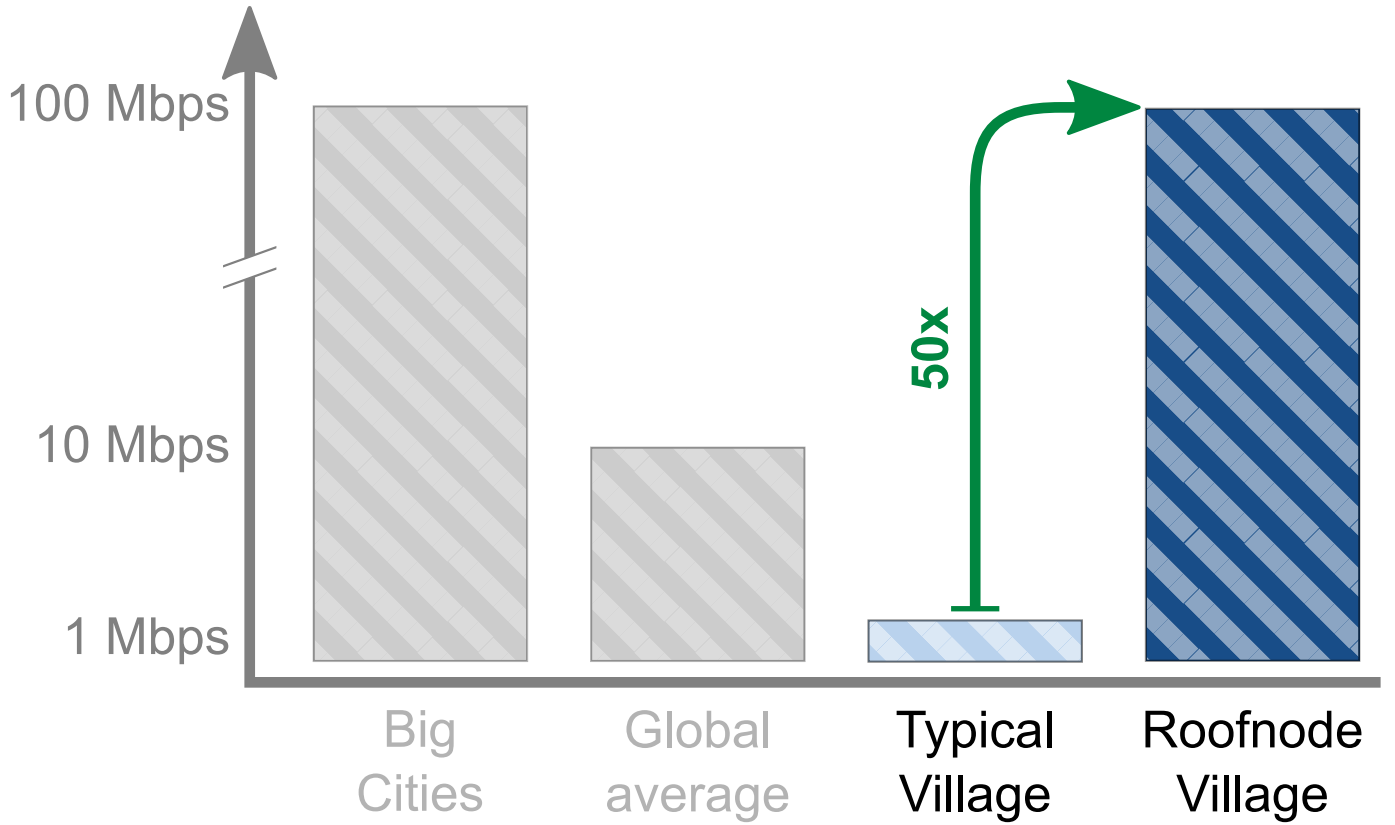
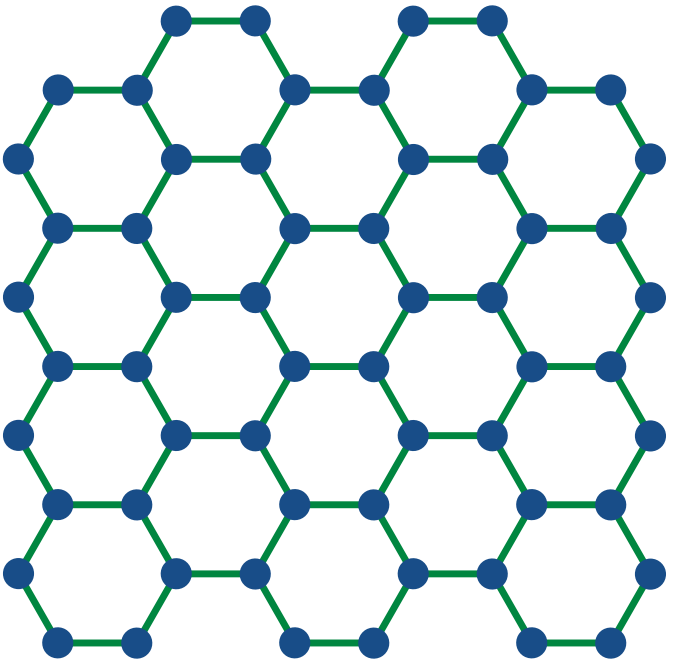
meets WBMv6



Problem:
Slow-speed Internet in rural areas



Solution:
point-to-point mesh



Theory

Solution:
point-to-point mesh

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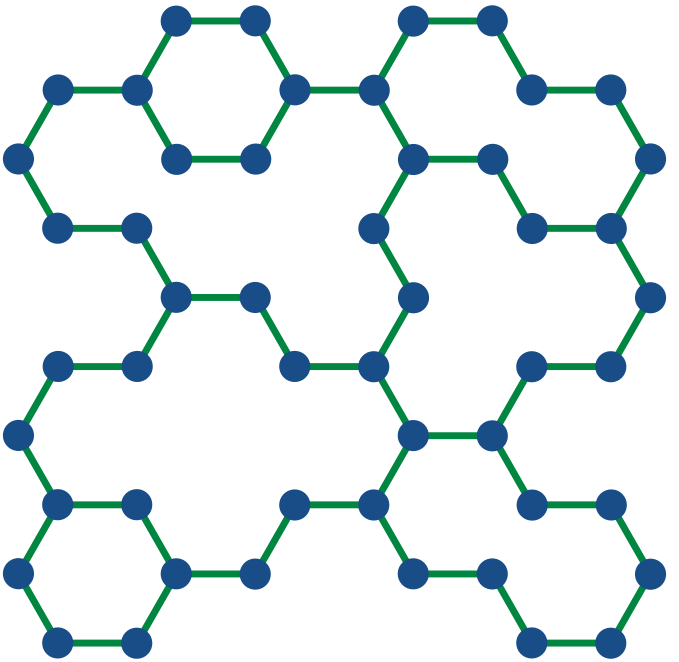
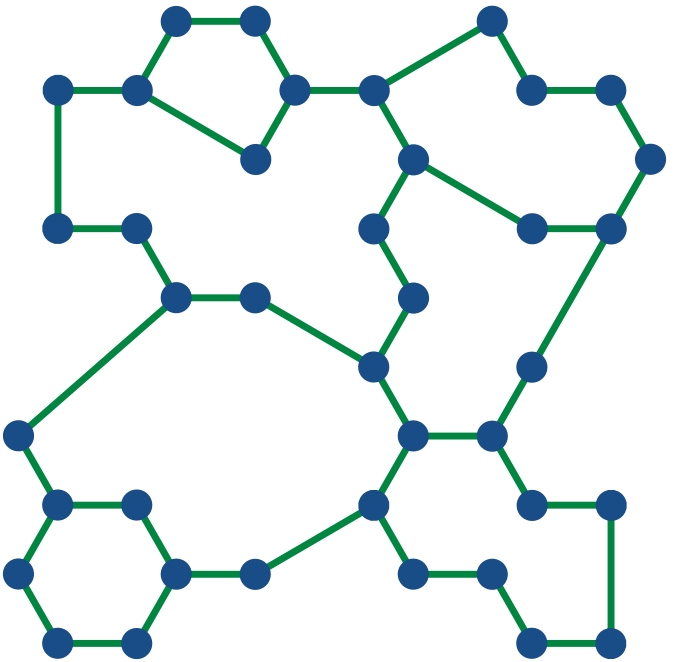


More realistic

Solution:
point-to-point mesh



Much more realistic

Point-to-point mesh concept applied to a village

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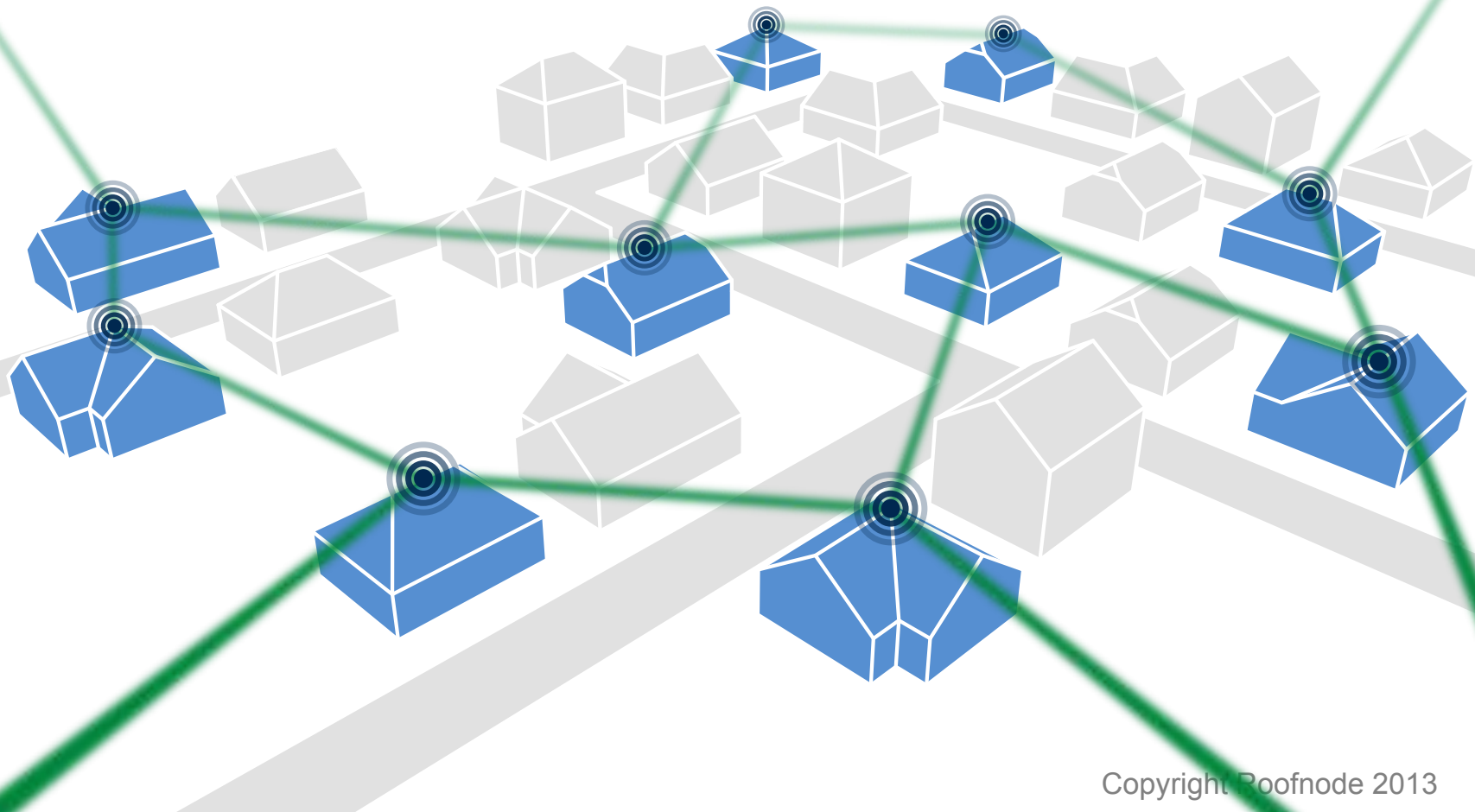

To connect a new subscriber ...

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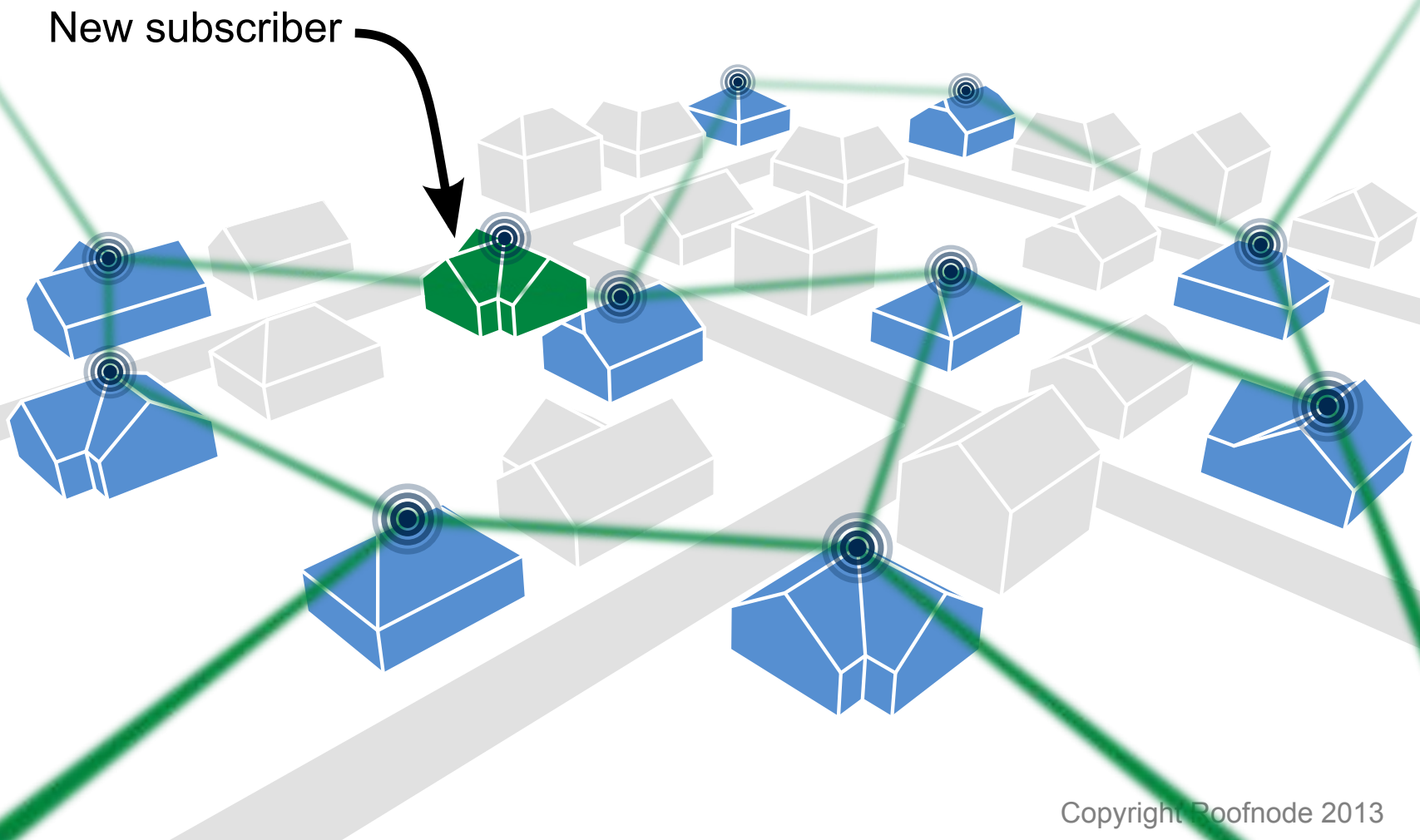

... neighboring nodes need to realign their directional antennas.

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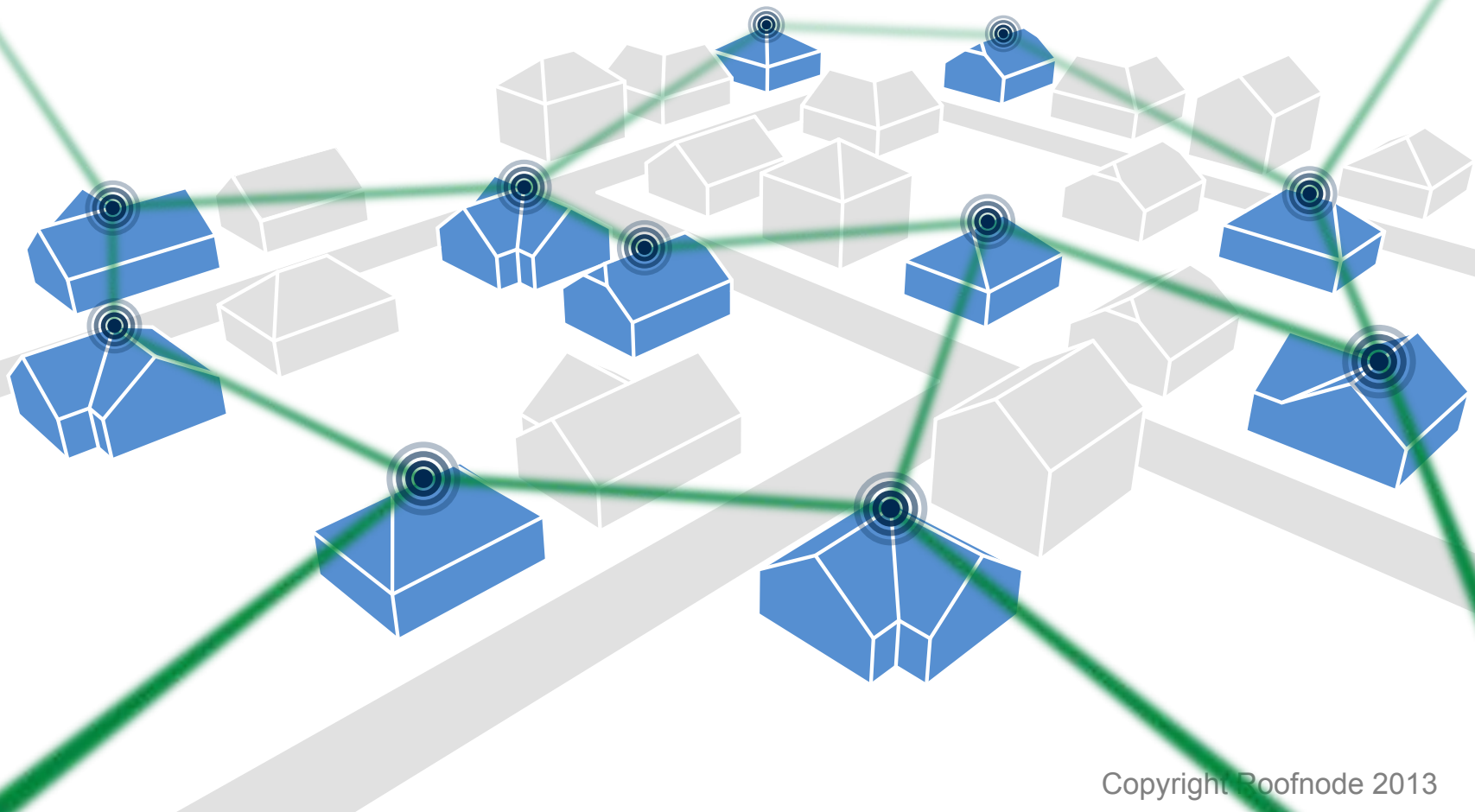

Early prototype used in field test

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Improved prototype (never deployed)

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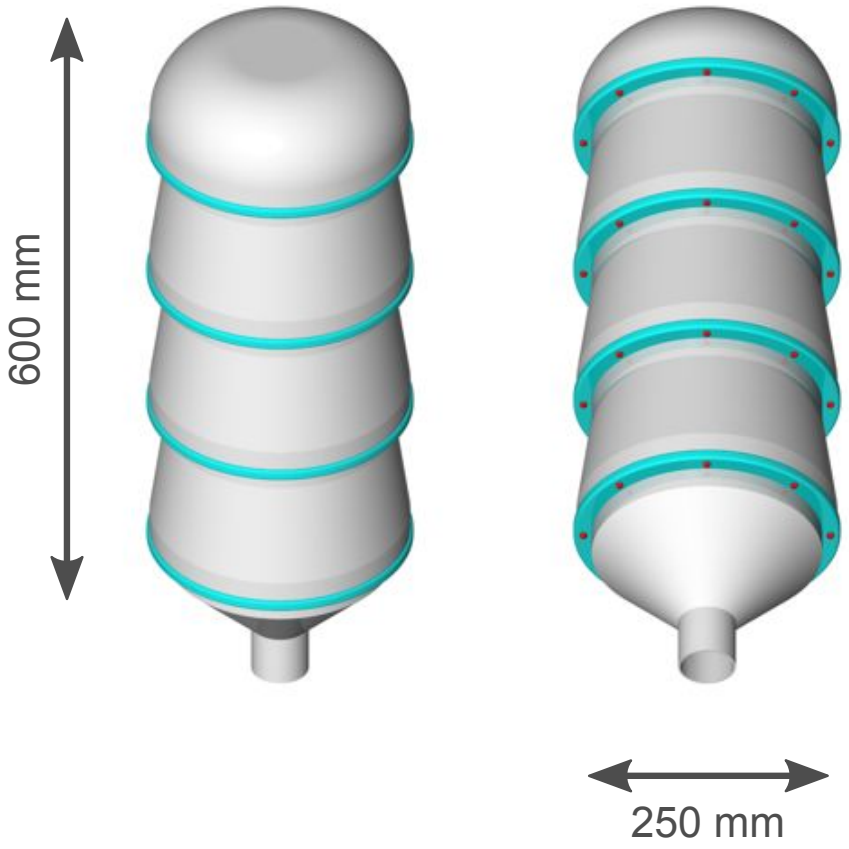
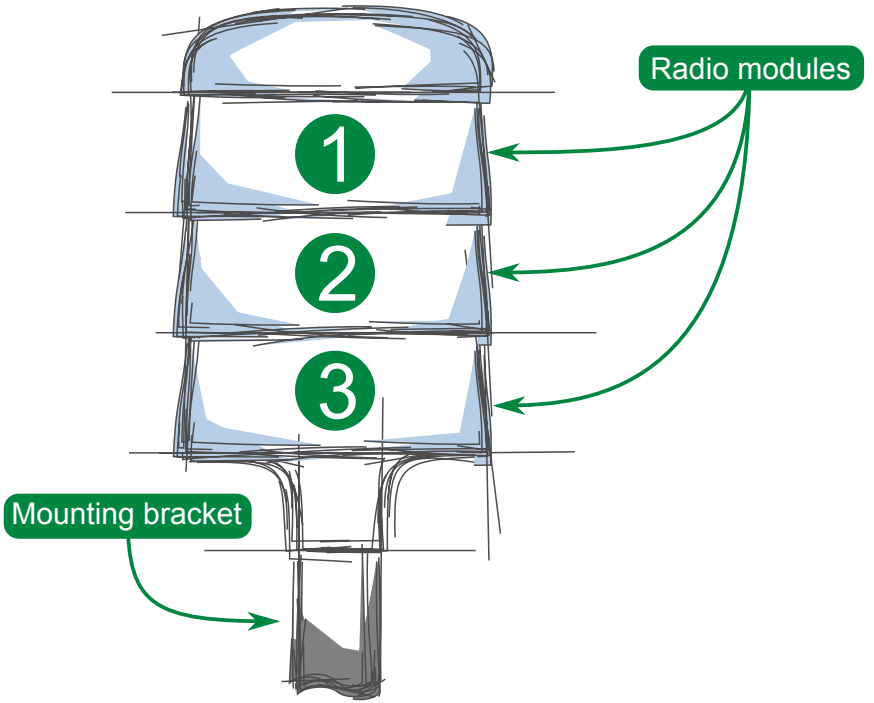
Newest prototype ...

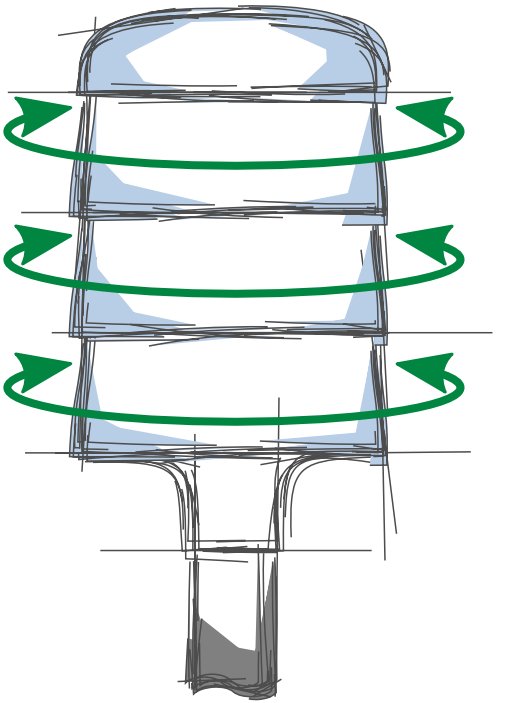


... used in IDIRA project

Three 5GHz directional radio modules

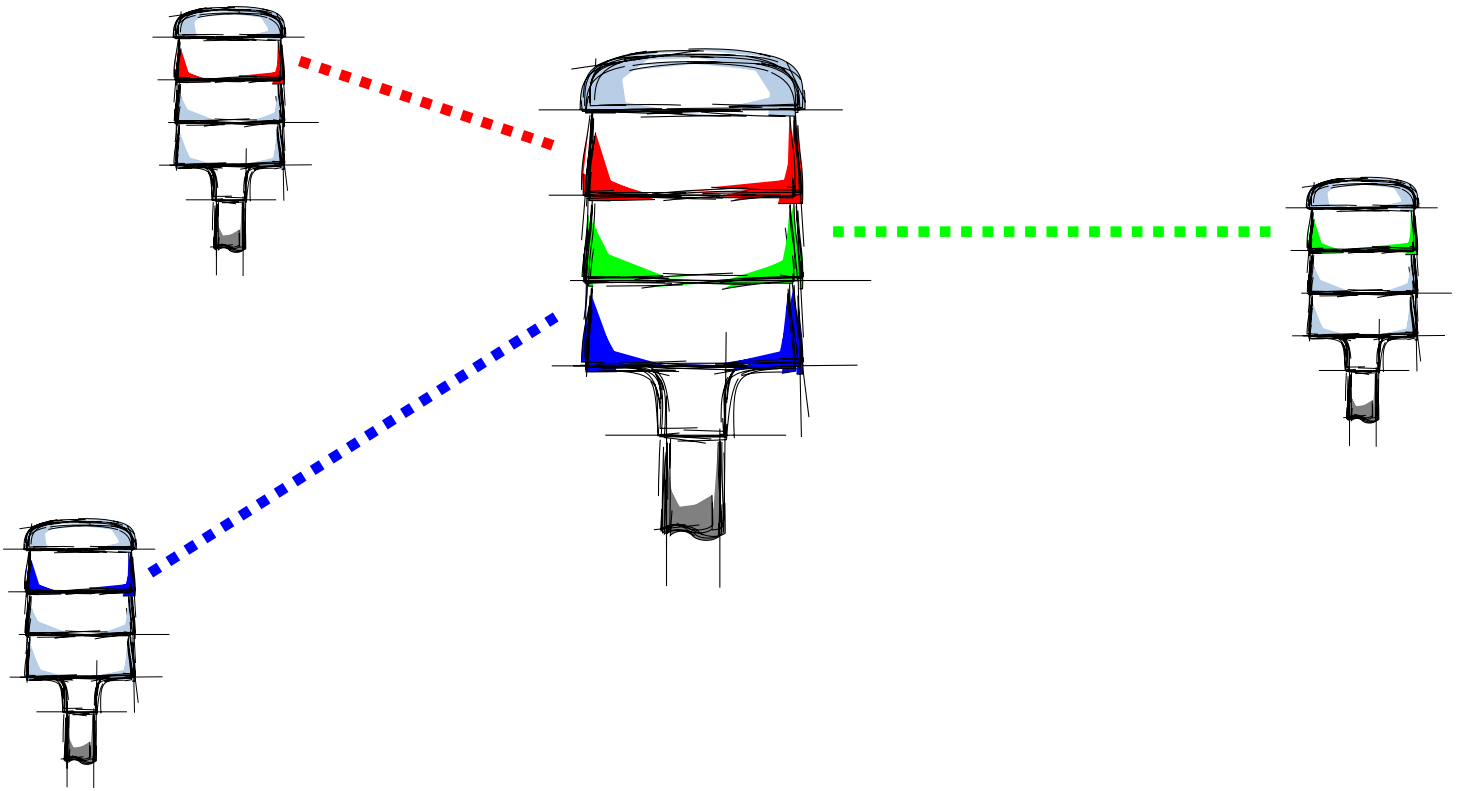


three independent
radio modules



with motorized
directional antennas

Every radio module can connect to exactely one neighboring node



This device needs to be mounted on every subscribers rooftop

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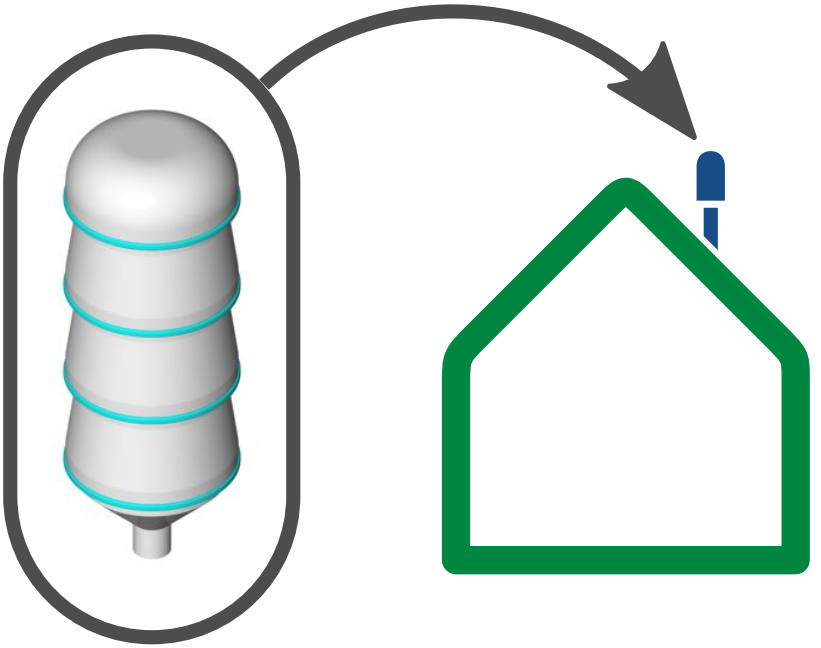
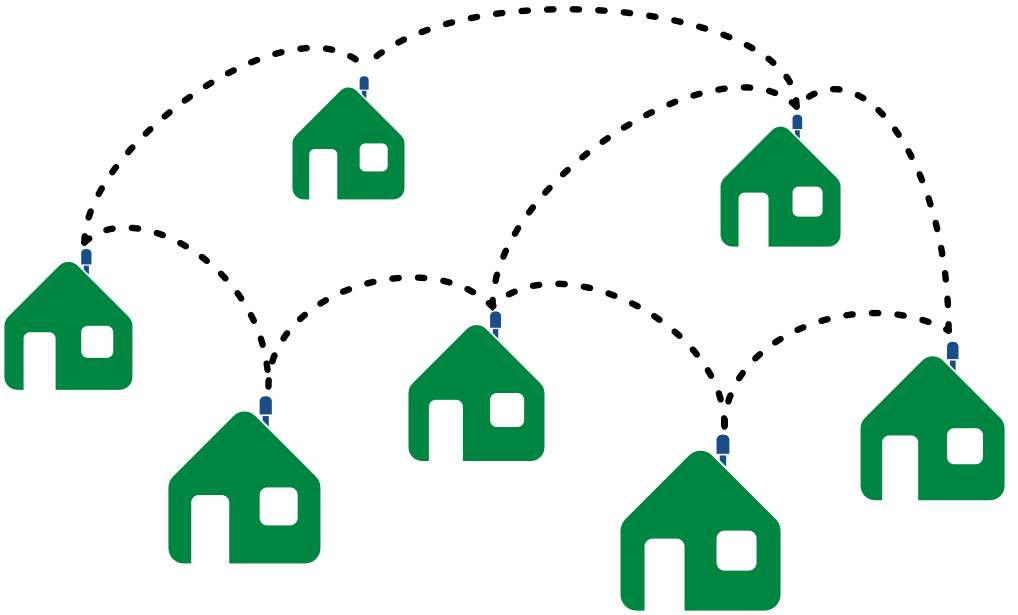
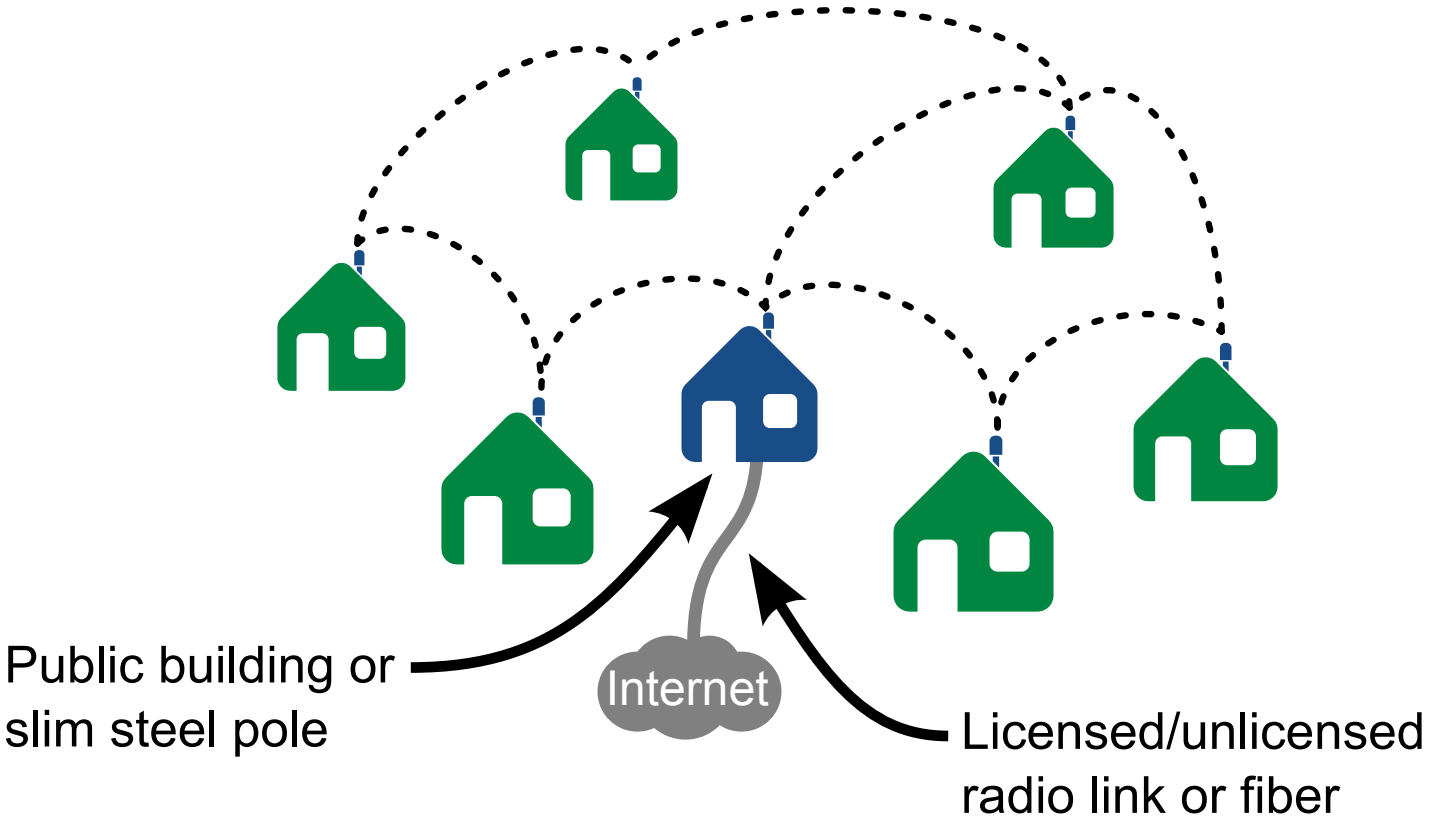


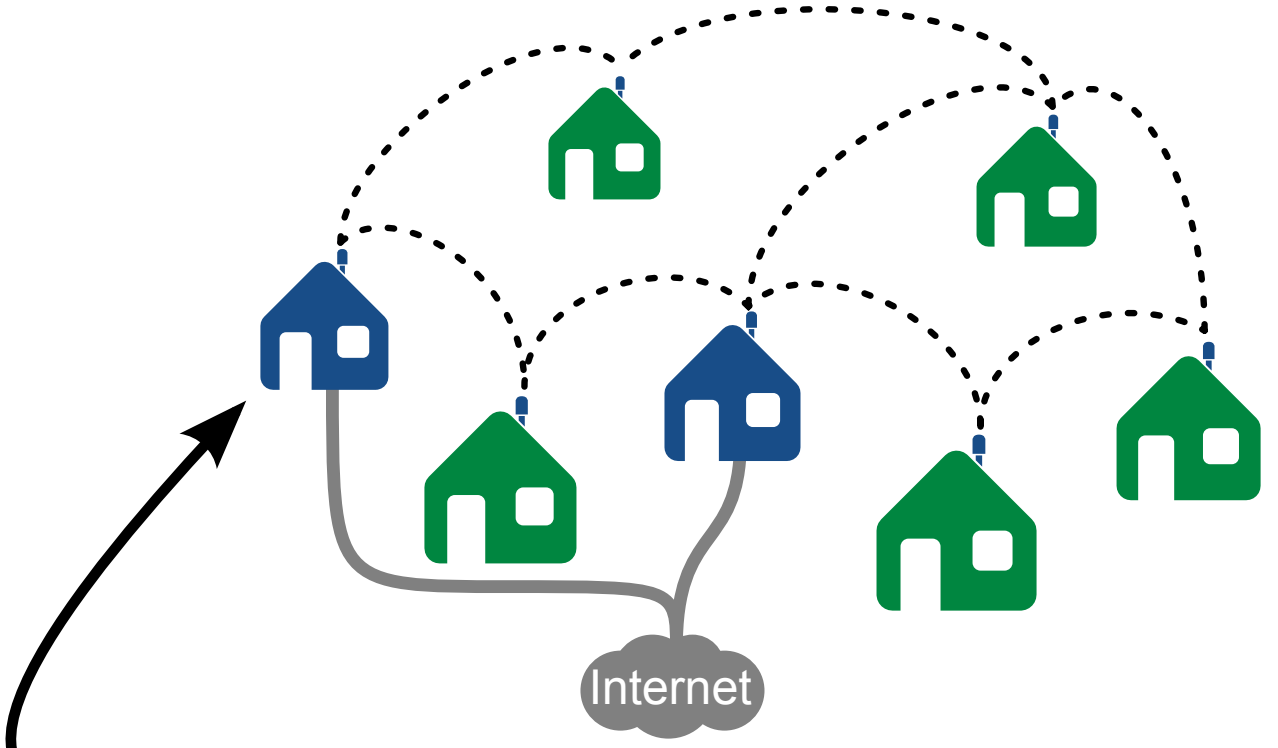
The whole mesh network is built out of the same device



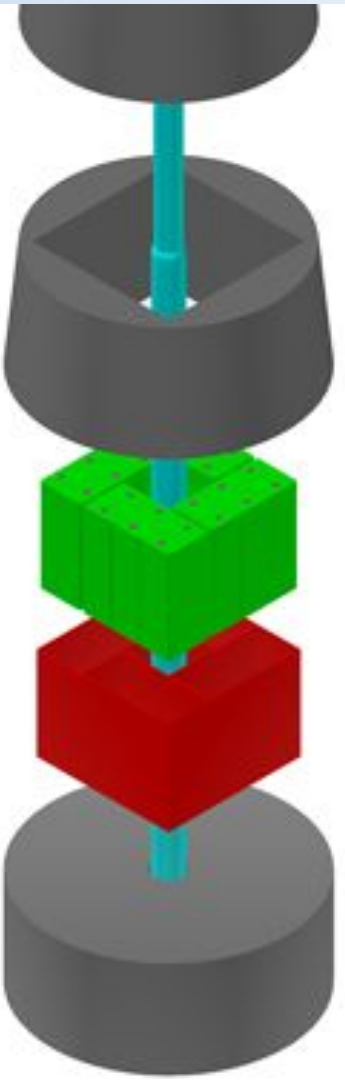
At least one node is connected to an upstream provider



Further gateways are established on demand



Transportable pole with battery bank in concrete socket (vandalism-proof)



Battery changer in concrete socket for powering CPE's in third world countries

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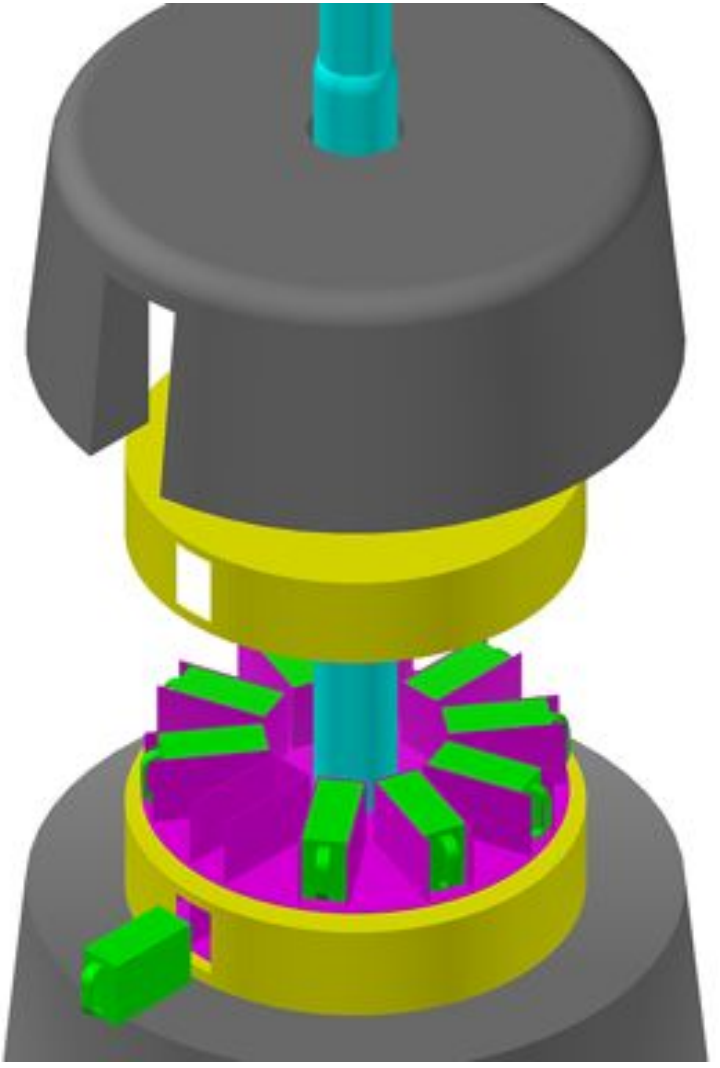

Field of application

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

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thanks WBMv6