

Open Networks: Technologies for Innovation

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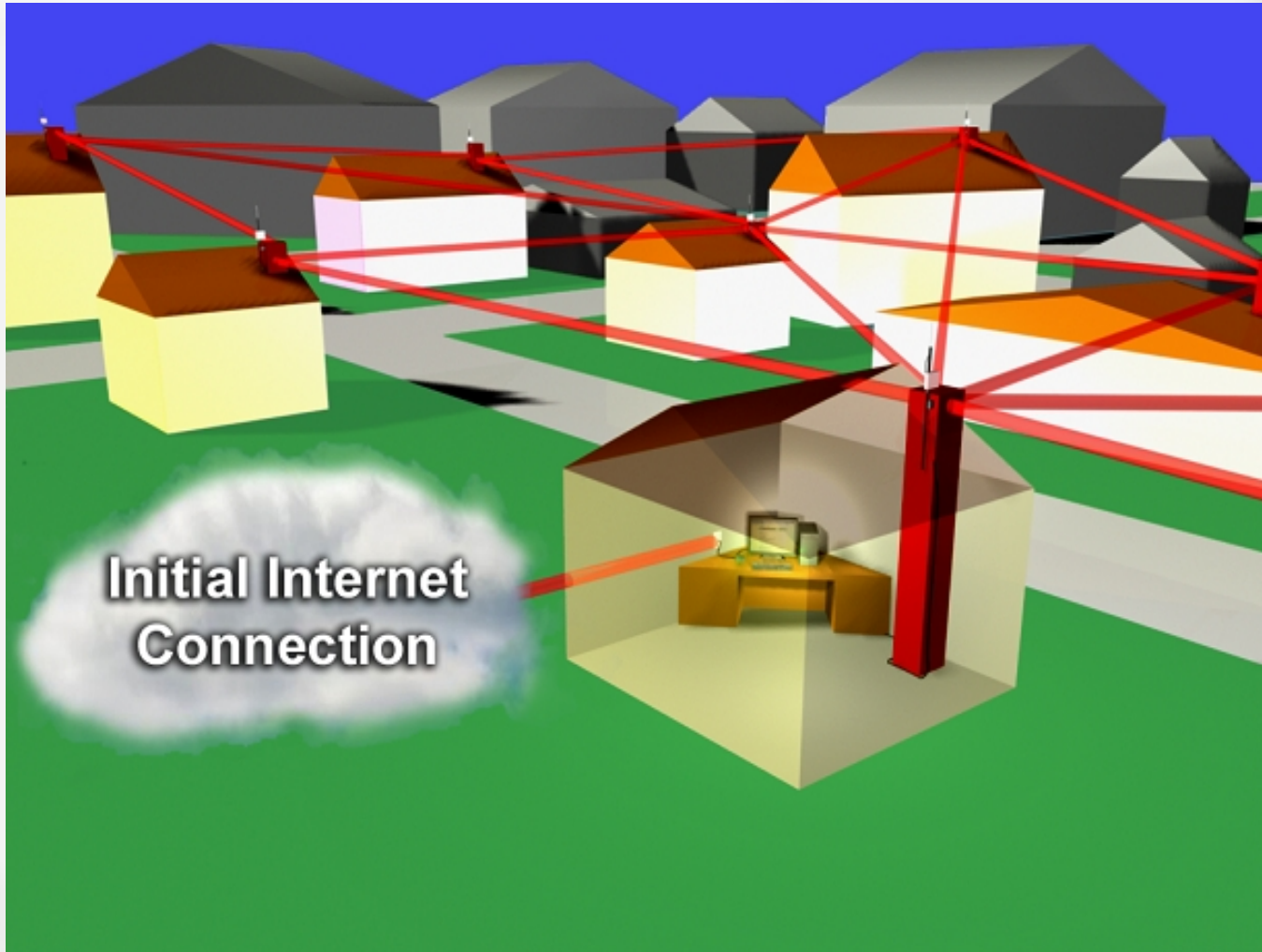
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Home Network



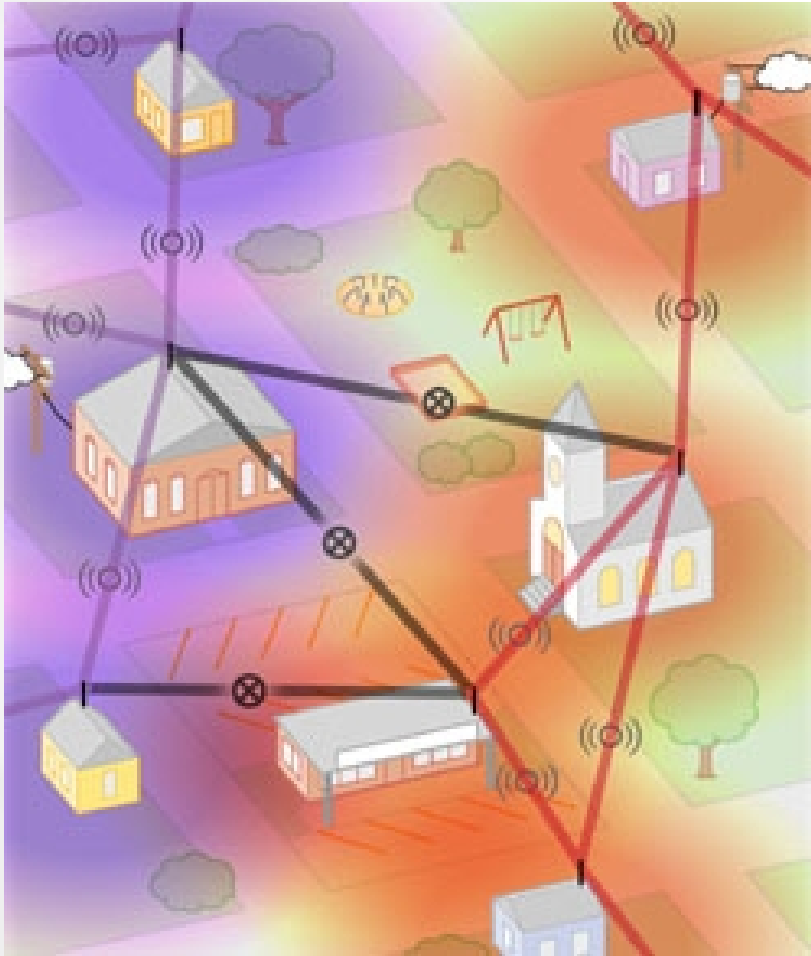
Graphic Credit: Pat Bergschneider

Local Network



Graphic Credit: Pat Bergschneider

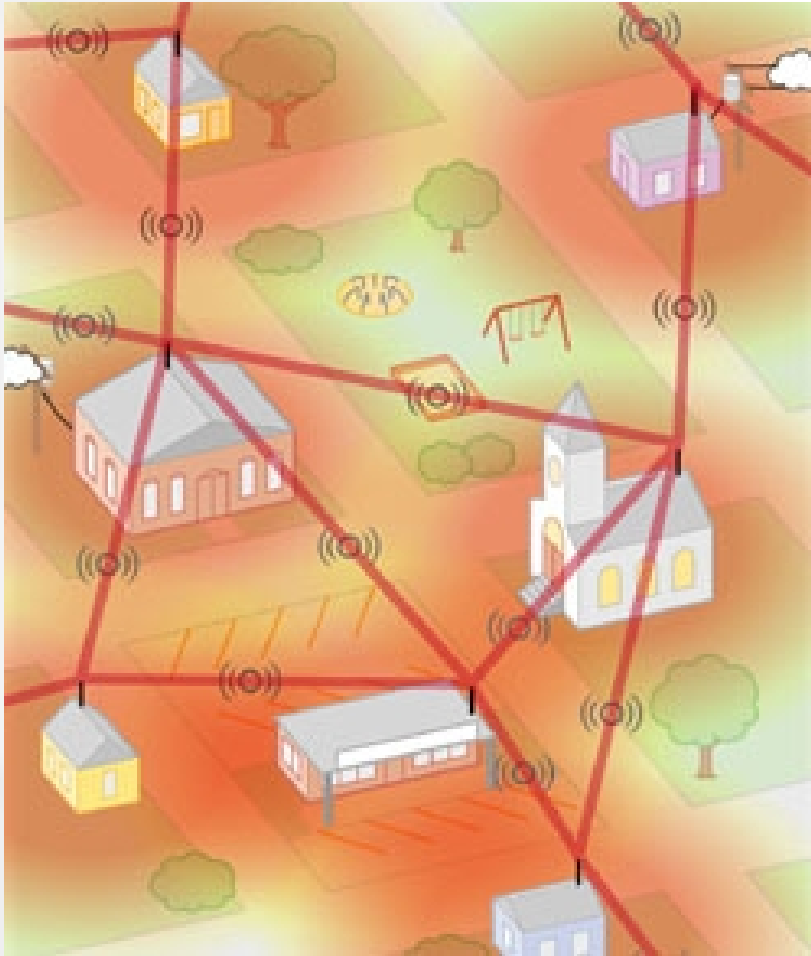
Closed Networks



- Proprietary
- Expensive
- Limited technology
- Fractures communities

- BUT, has huge PR & Marketing behind it

Open Networks



Graphic Credit: Darrin Drda

- Interoperable
 - More secure
 - Cheap/free software
 - Open source
 - Open protocol
 - Open architecture
-
- AND, allows community resources on the network (i.e., Intranet services & applications)

OpenMoko



Photo Credit: gadgetblog.it

G-Phone



Mark Lennihan / AP

OLPC Mesh



Photo Credit: techfreep.com

The Open Trifecta

Open Source & Protocol:

- Linux- and NetBSD-based.
- Fisheye – Hazy Sighted Link State (HSLS) routing protocol – first documented by BBN Technologies (a.k.a., scalable routing).
- Expected Transmission Count (ETX) route prioritization (and ETT) – first developed by MIT – allows for “self-healing.”

Open Architecture:

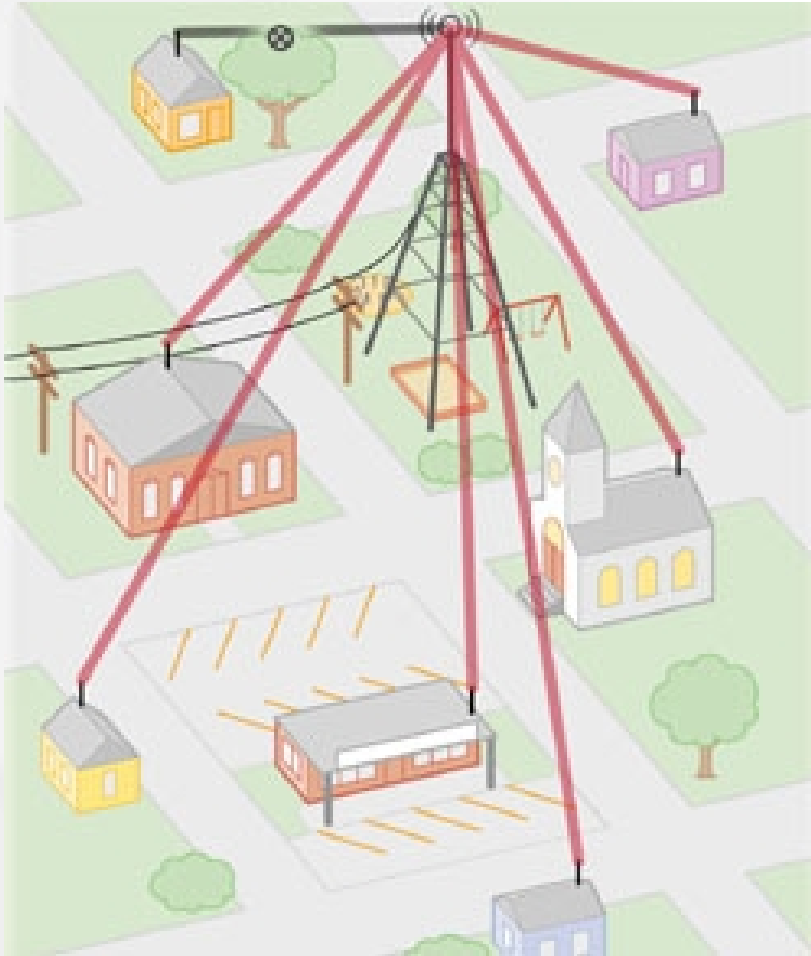
- From x86-based devices (old PCs to single-board computers) to OLPCs, iPhones and Google Phones (emulators, at least).
- Integrates “off-the-shelf” components & web-ordered equipment.

Open Spectrum:

- 802.11b/g (2.4 GHz) & 802.11a (5 GHz).
- White spaces (coming soon).

Will the future of connectivity be...

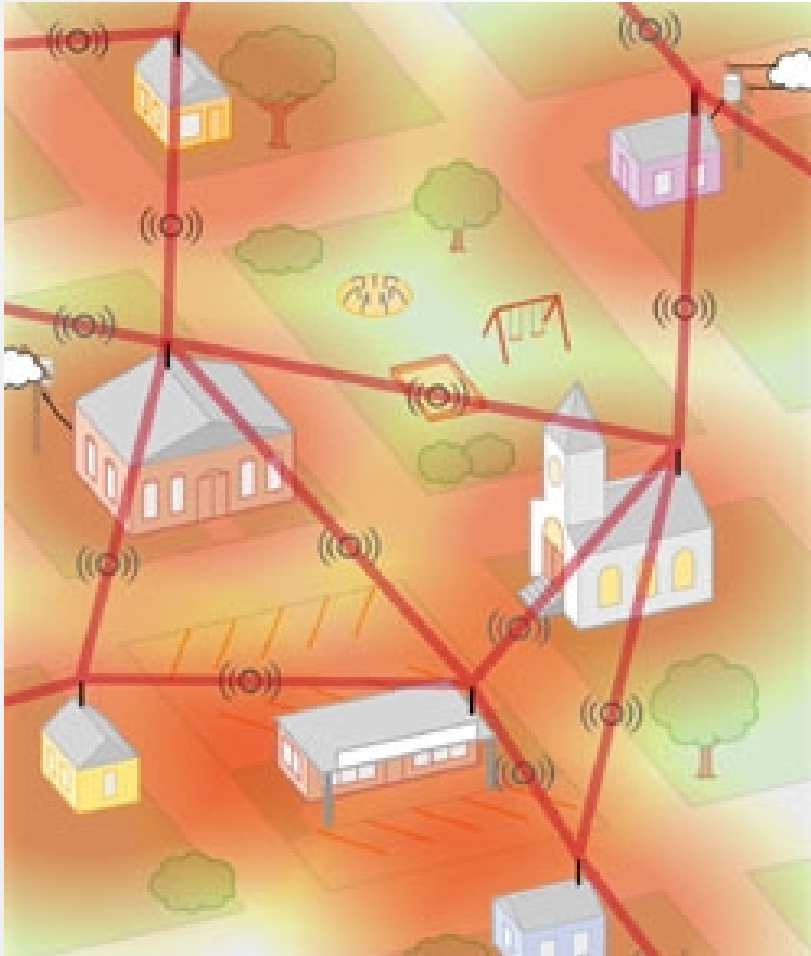
Command & Control



Graphic Credit: Darrin Drda

- Centralized
- Expensive
- Proprietary
- Exclusive

Open & Interoperable



Graphic Credit: Darrin Drda

- Decentralized
- Affordable
- Open
- Participatory

More Information

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Open Source Wireless Coalition:

www.oswc.net

Community Wireless Summit:

www.wirelesssummit.org