Meshing the Mesh

disclaimer

all of this is a collection of work, inspiration, and conversation by many others including *the Equitable Internet Initiative*, **Diana Nucera**, **Greta Byrum**, **Mimi Onuoha**, **Andy Gunn**, *Commotion Wireless*, *Detroit Community Technology Project*, *Portable Network Kit*, *NYC Mesh*, **Sarah Friend**, **Ben Lau**, **Sam Keene**, *Red Hook Wifi*, *Allied Media Projects*, *Data & Society*, **Ingrid Burrington**, **Taeyoon Choi**, *School for Poetic Computation*, *New America*, **Zach Poff, Liz Glynn**, The Information by James Gleick, **Brannon Dorsey**, *Sudo Room*, **Sarah Grant**, *(State of) Our Networks (Conference)*, *Cybernetic Conference*, *Open Technology Institute*, *Radical Networks*, *guifi.net*, *Hyperlocal TV*, *s-h-r-y-c-t-n,* and more

what are we gonna talk about

computers

computer networks

wireless networks

our network(s)

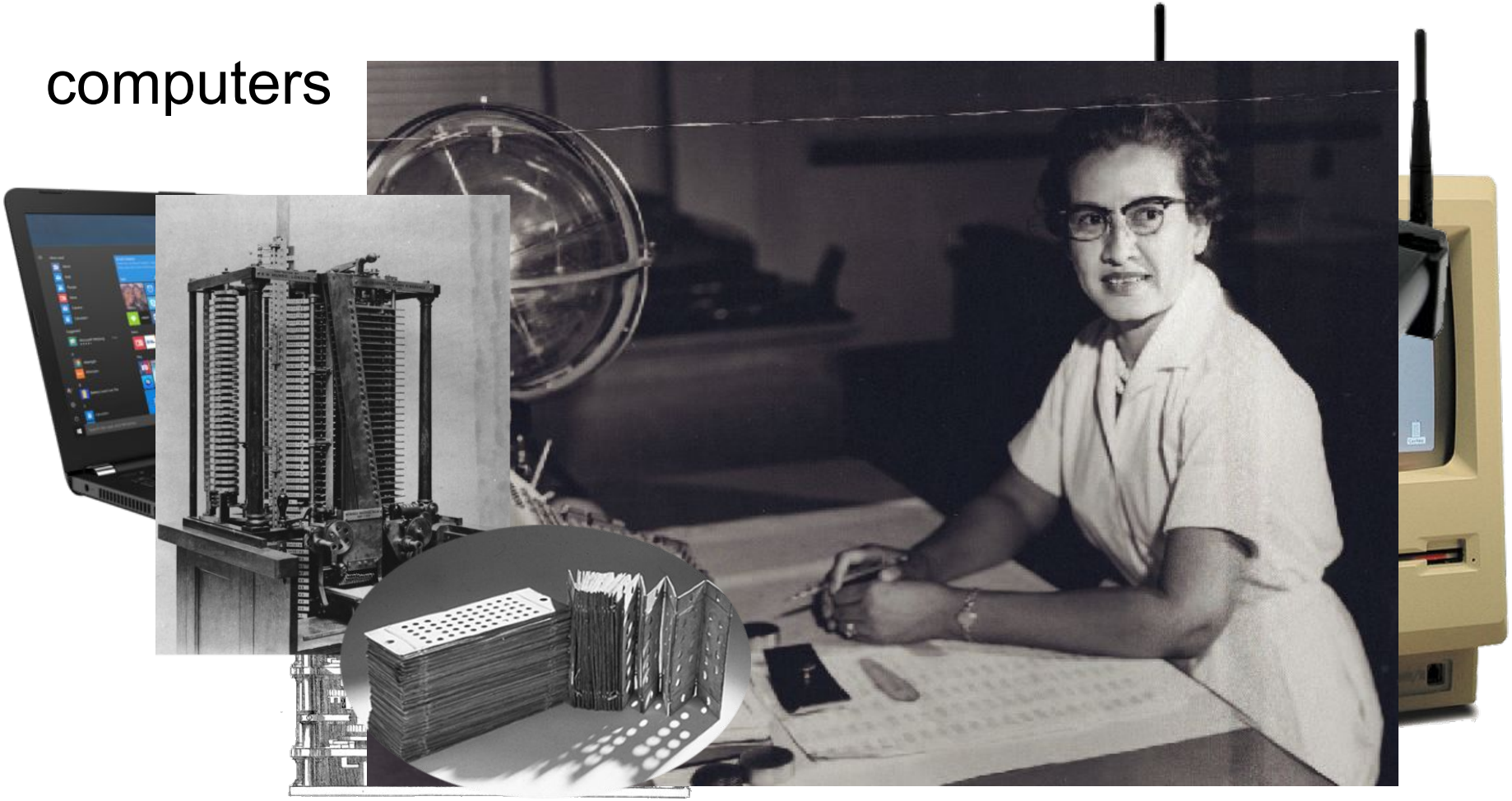
local networks

the Internet(work)

computers

a device, usually electronic, that processes data according to a set of instructions

computers



CPU
DUMPLINGS
QUARTZ

CoMMoTIoN

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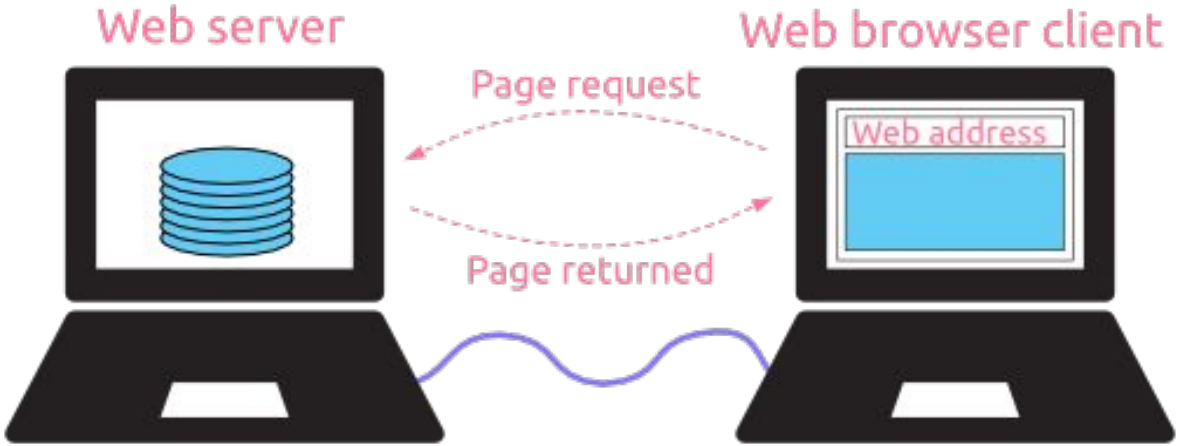
computer networks

clients & servers

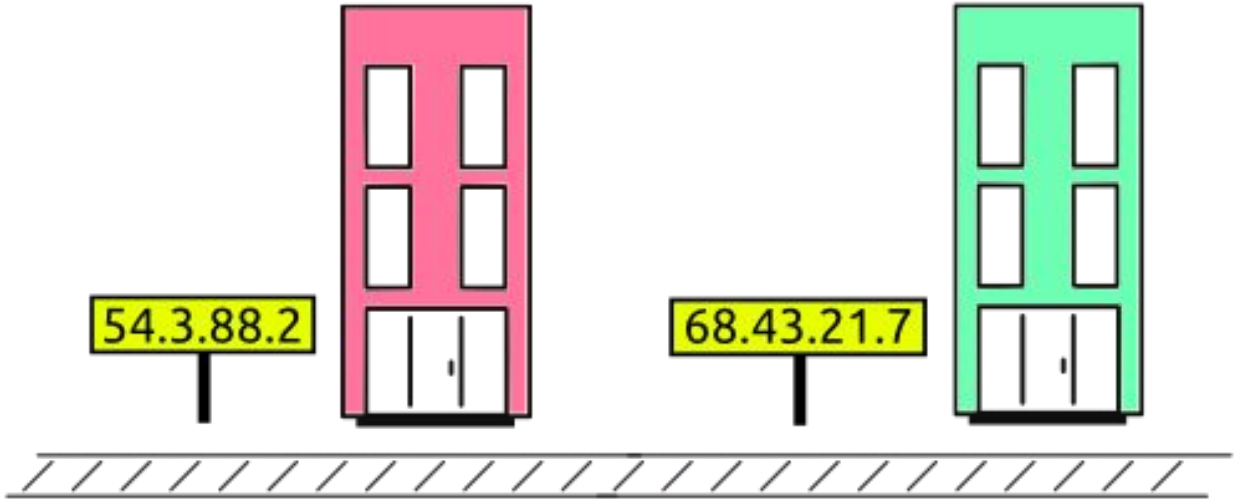


computer networks

IP addresses

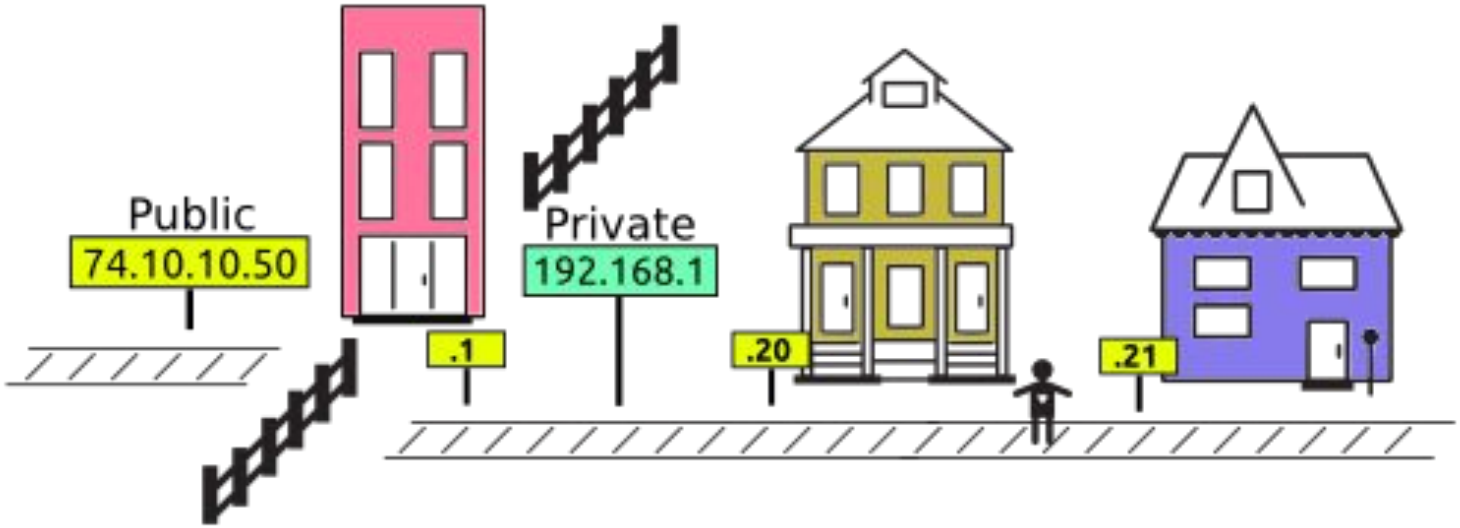
computer networks

IP addresses



computer networks

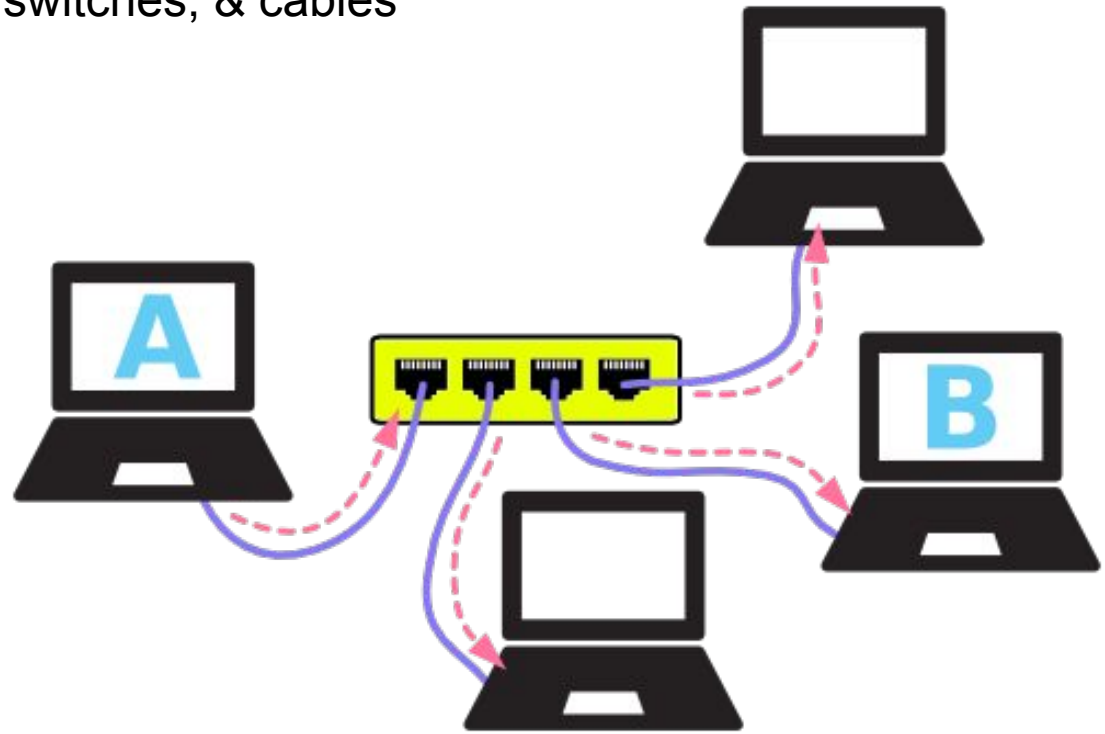
IP addresses



https://www.whatismyip.com/

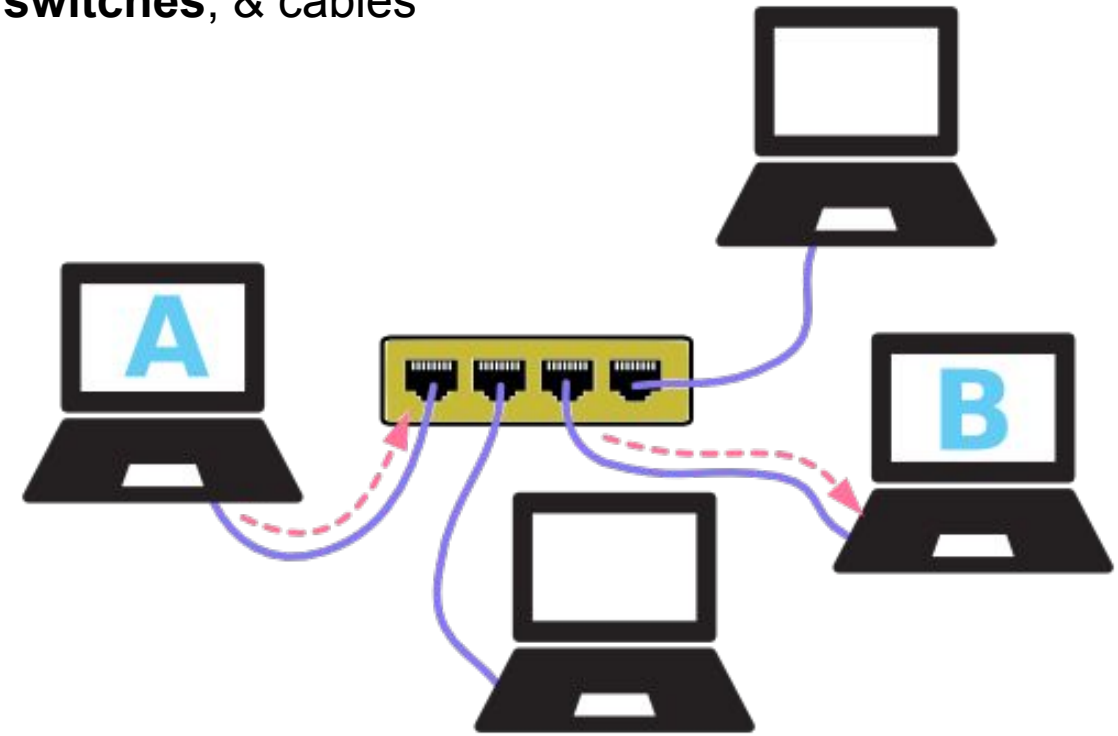
computer networks

network **hubs**, switches, & cables



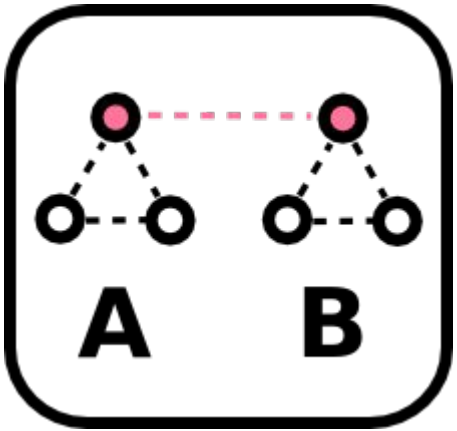
computer networks

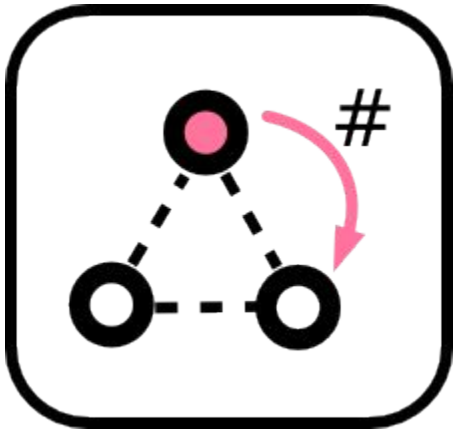
network hubs, **switches**, & cables

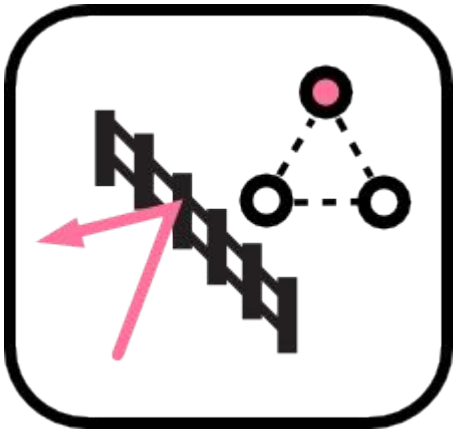


computer networks

routers & firewalls

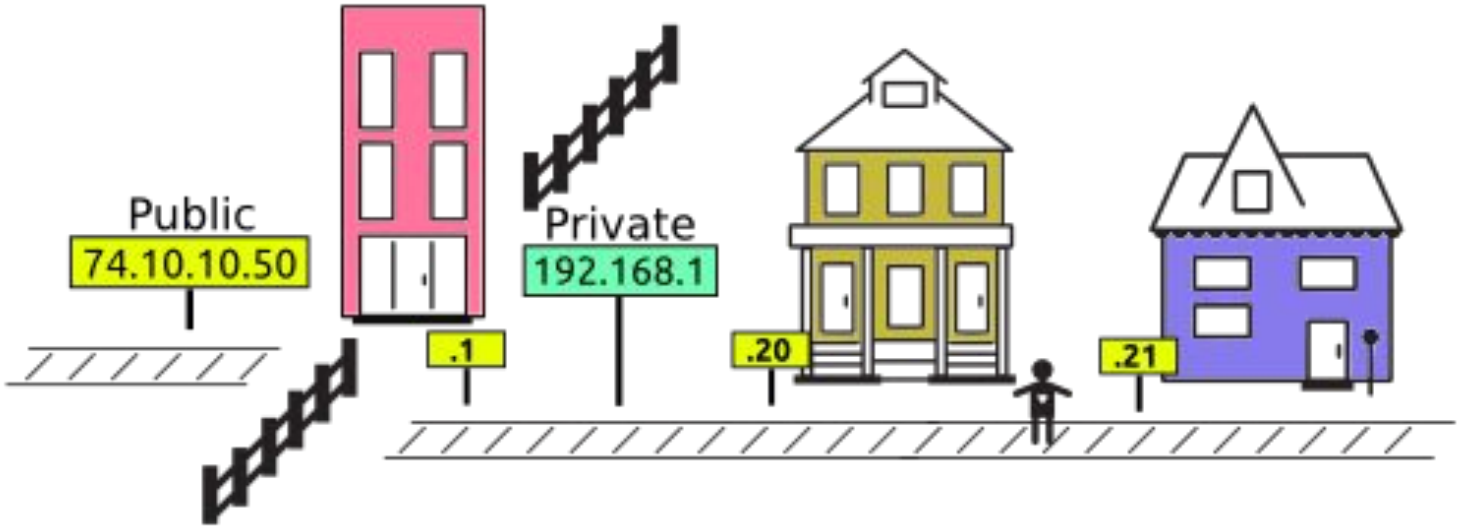






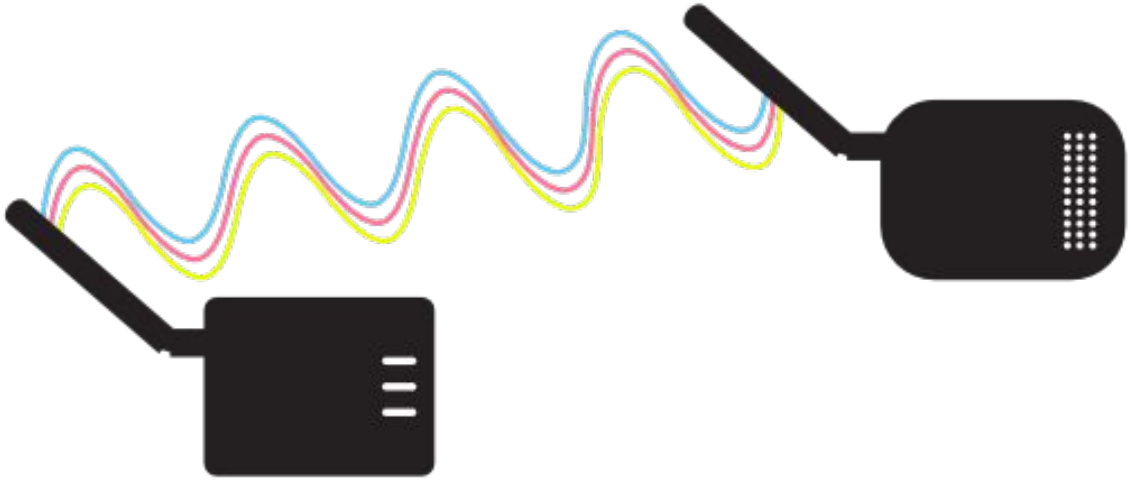
computer networks

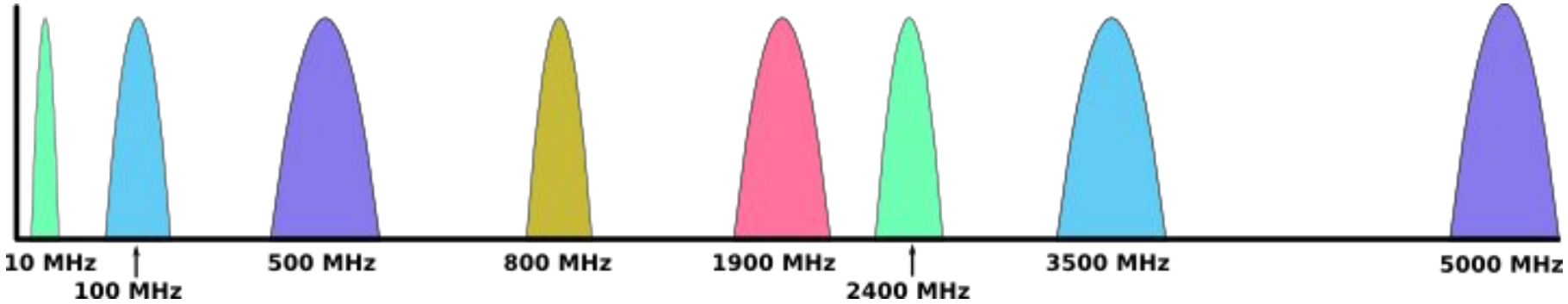
routers & firewalls



wireless networks

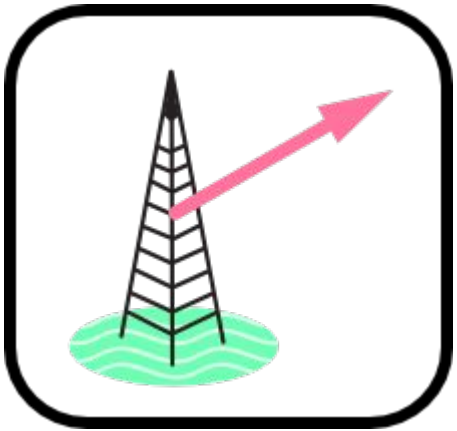
wireless signals & frequencies





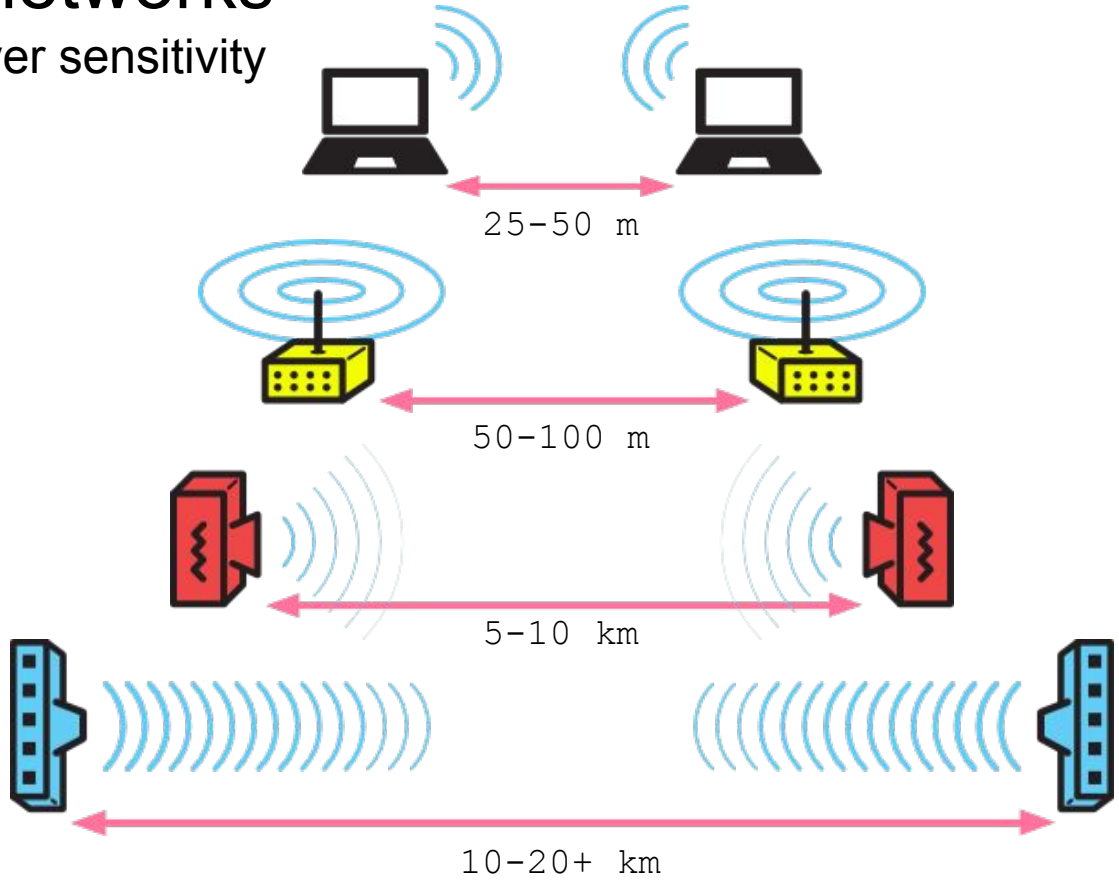
wireless networks

transmitters & receivers



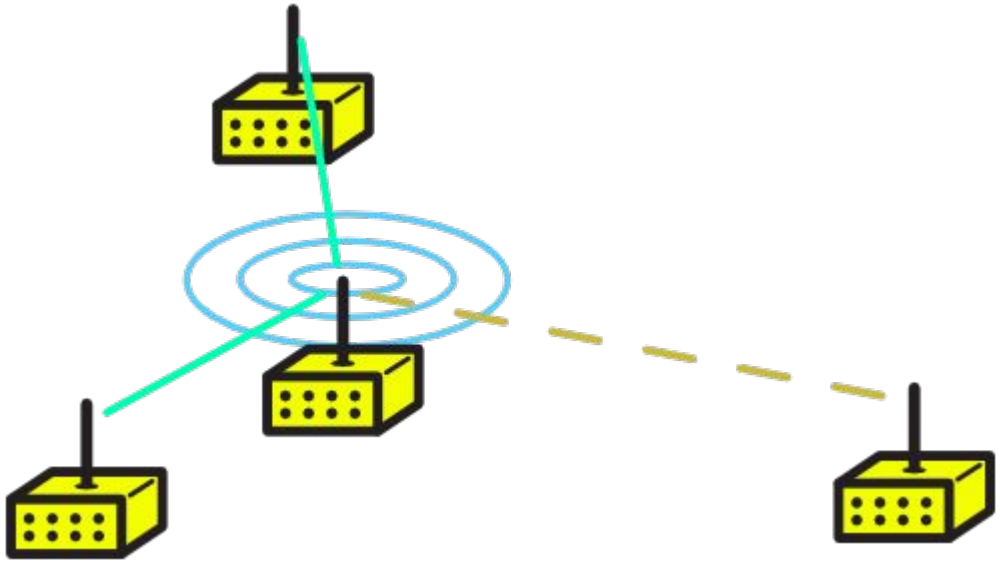
wireless networks

power & receiver sensitivity



wireless networks

omnidirectional antennas



wireless networks

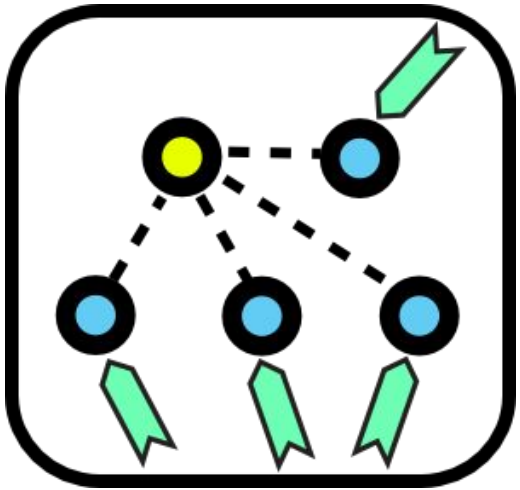
directional antennas

sector antenna

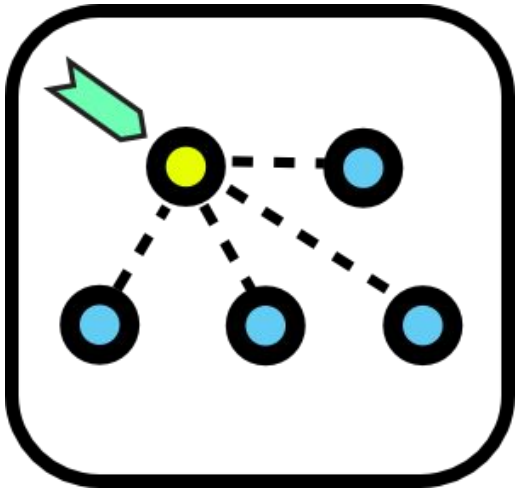
focused antenna

wireless networks

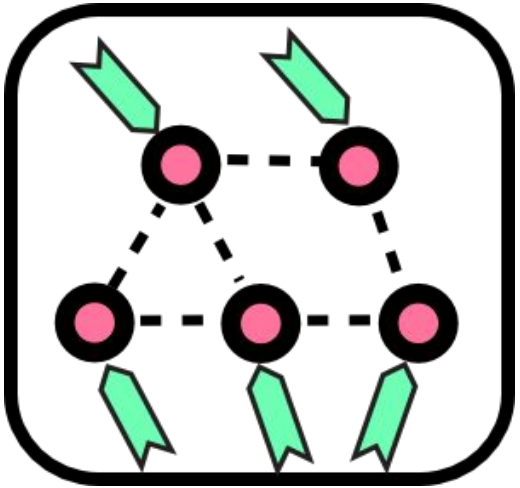
wireless device roles



wireless clients
(stations)



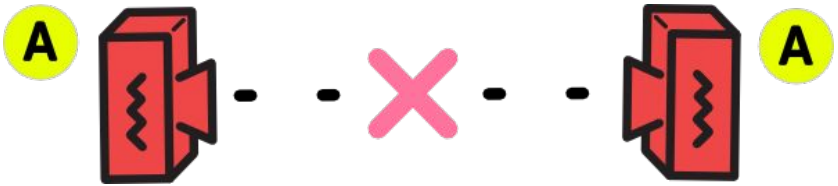
access points
(master)

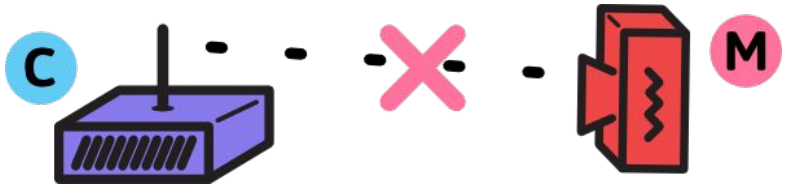


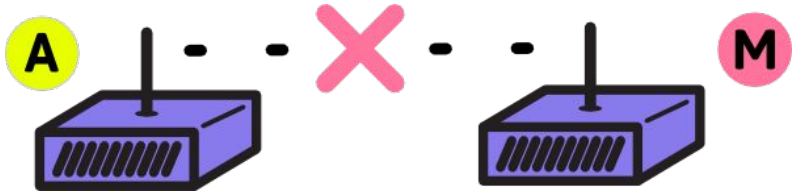
ad-hoc nodes
(mesh)

wireless networks

we have rules here you know

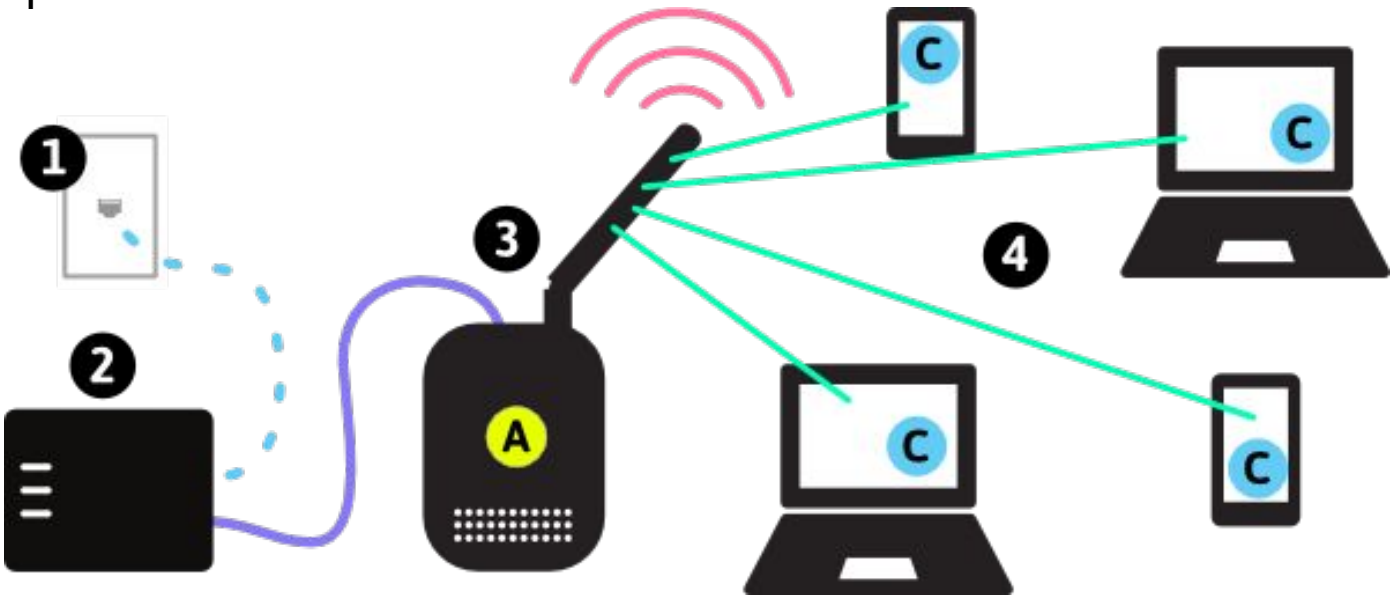






wireless networks

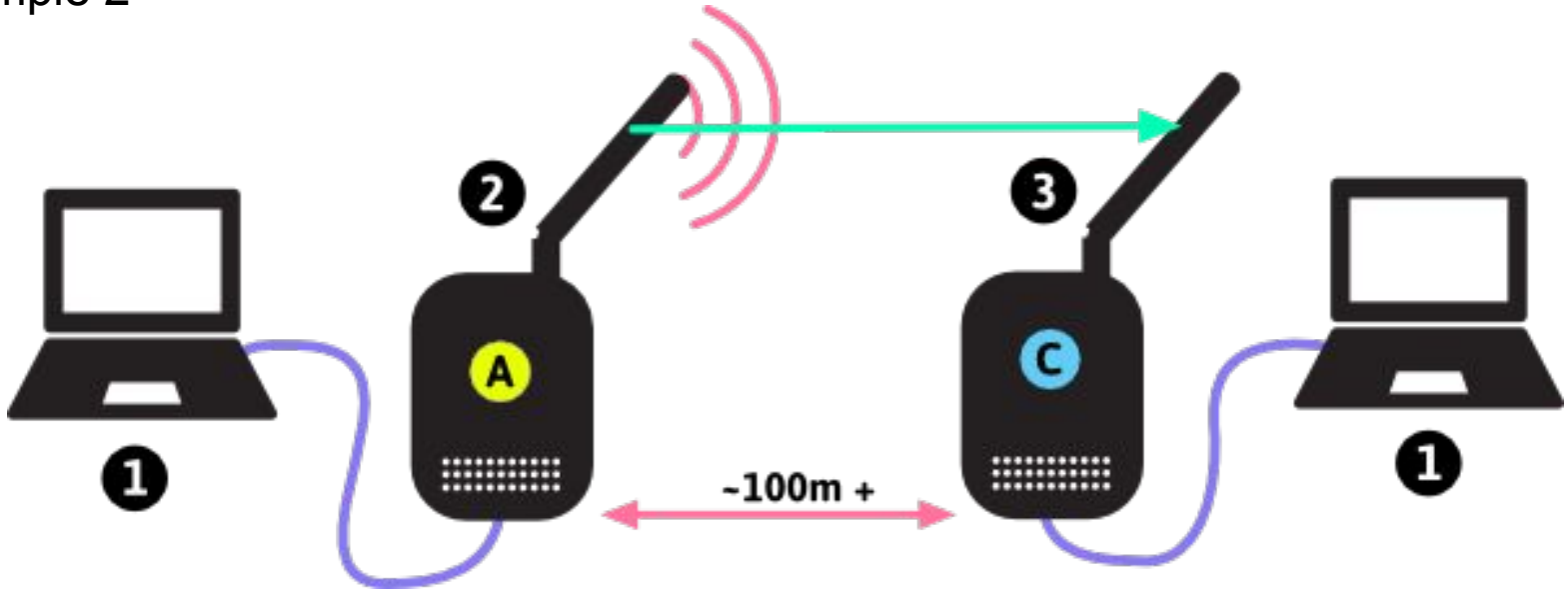
example 1



access point - home network

wireless networks

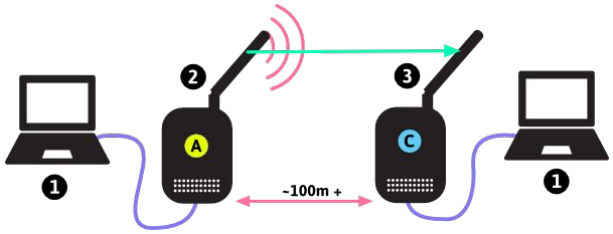
example 2

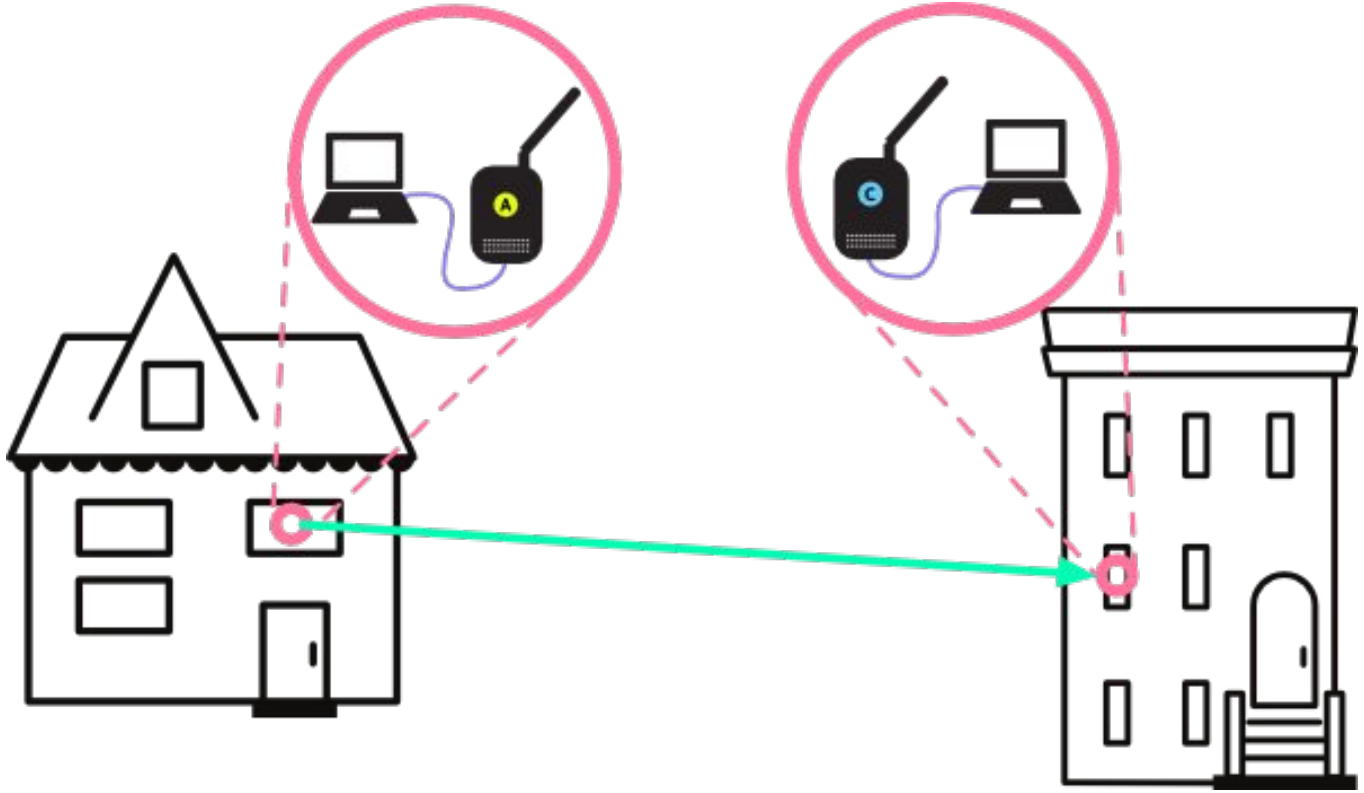


omnidirectional access point & client link

wireless networks

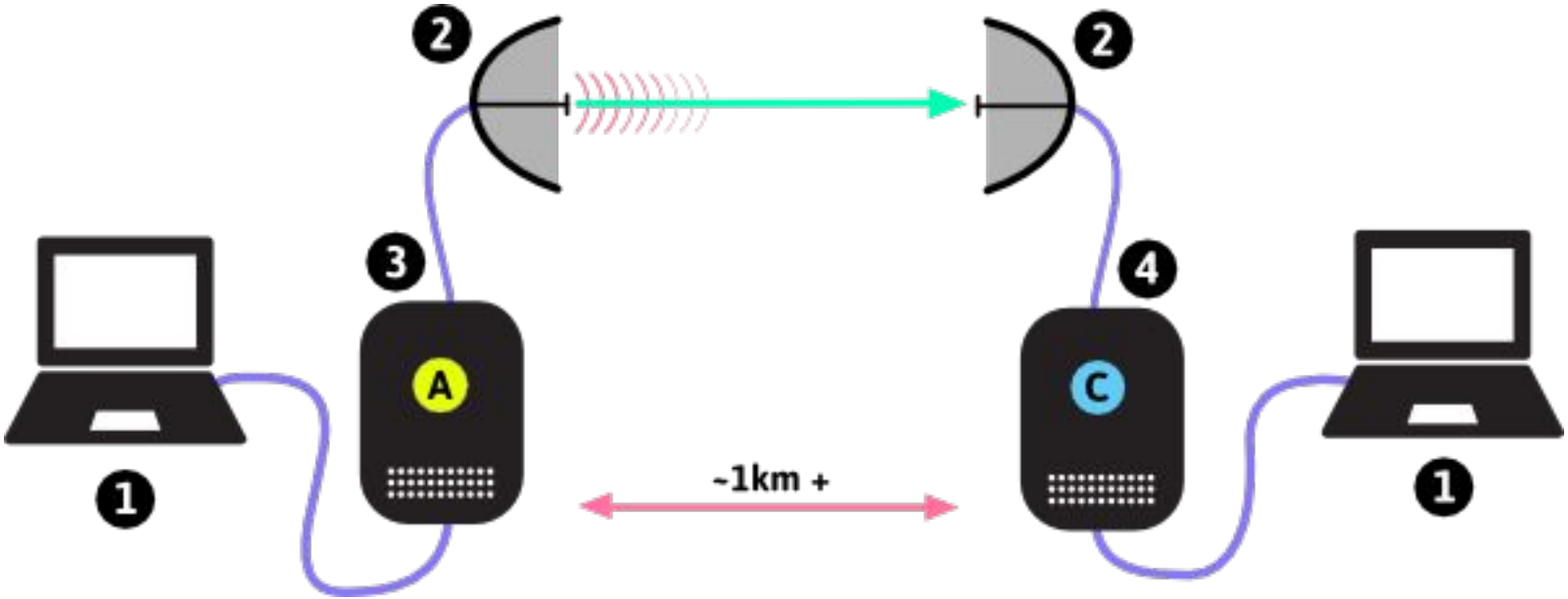
example 2





wireless networks

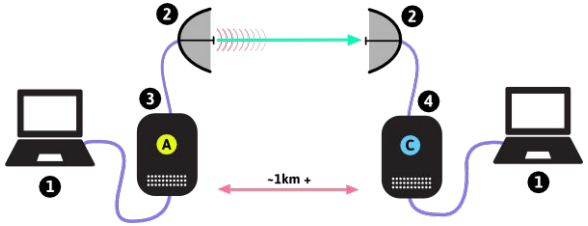
example 3

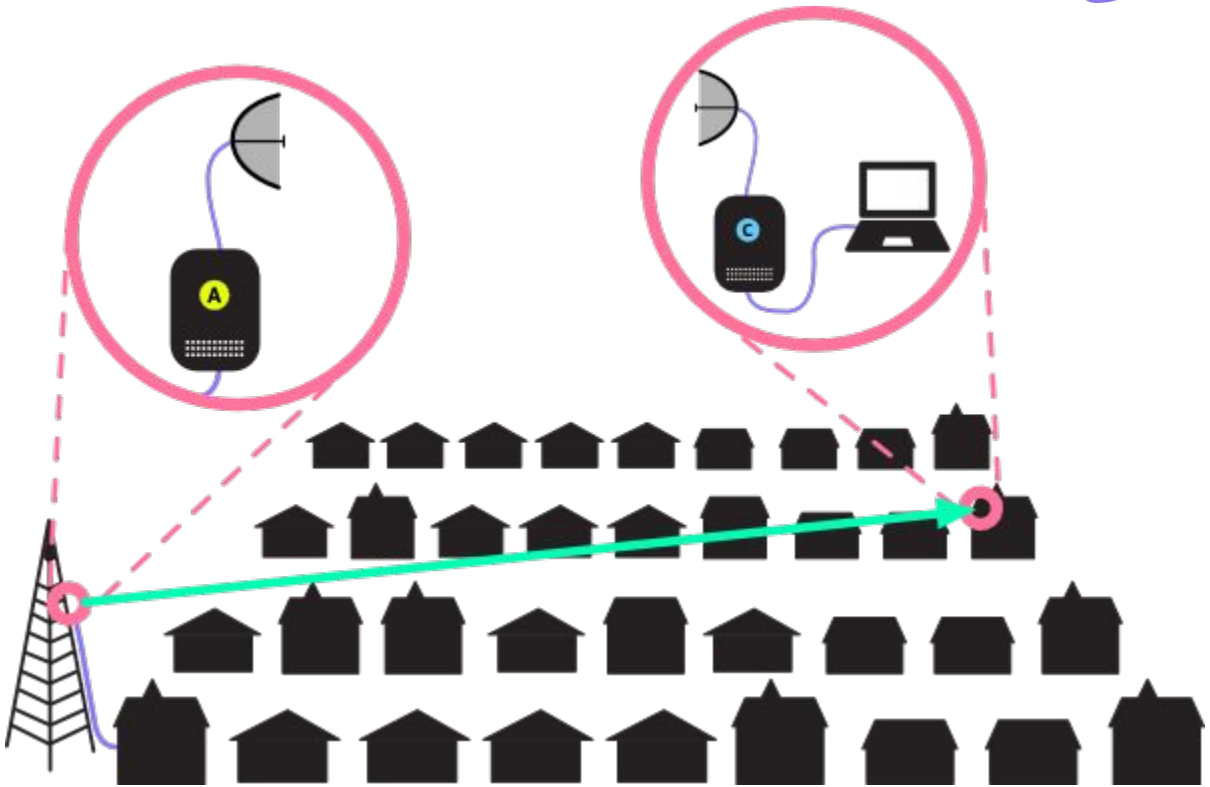


directional access point & client link

wireless networks

example 3

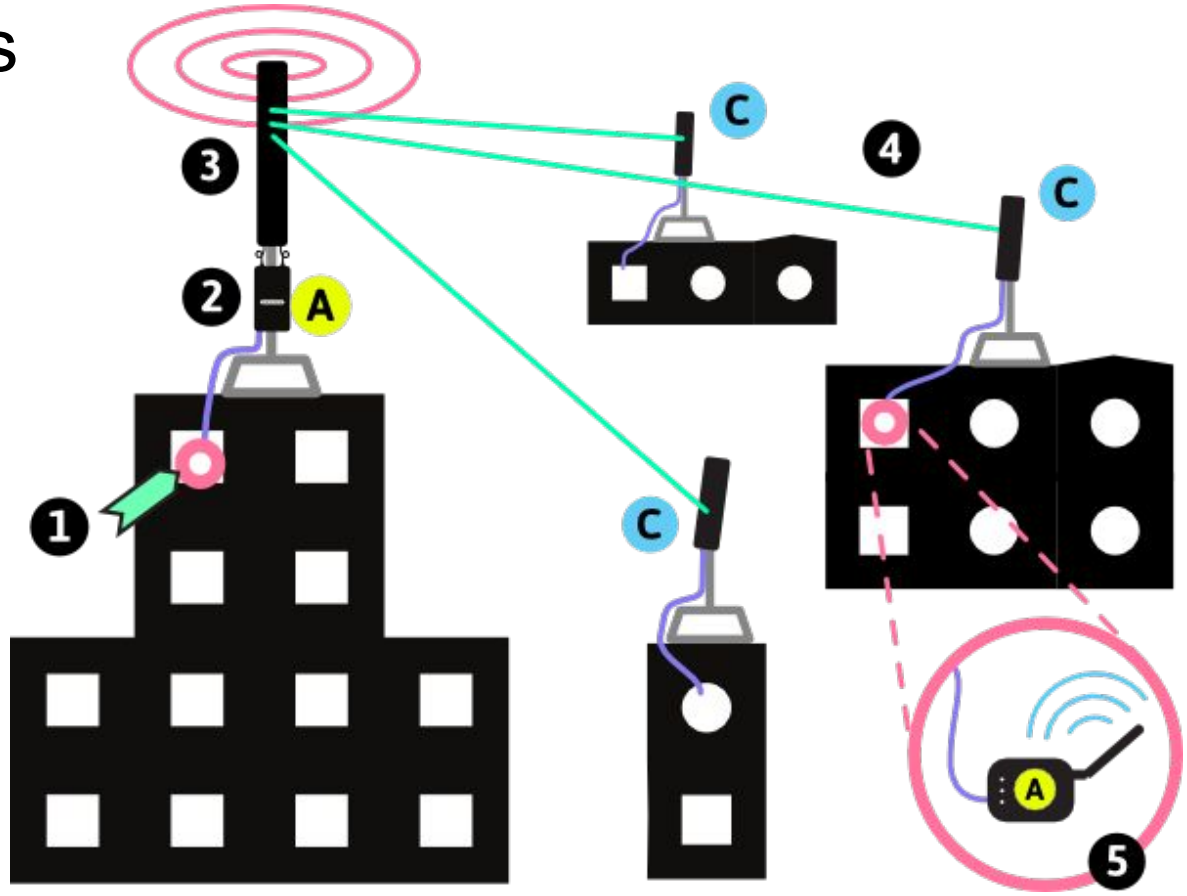




wireless networks

example 4

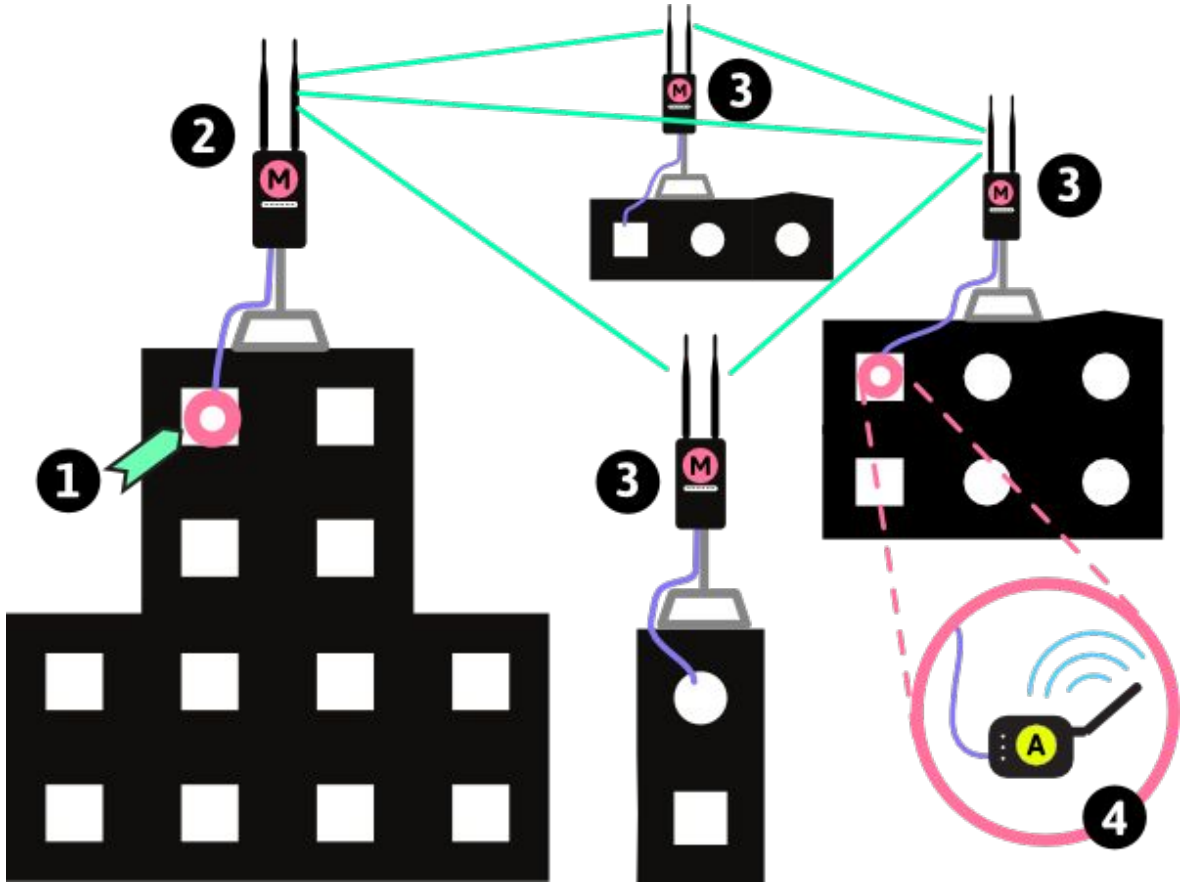
point to multipoint WISP



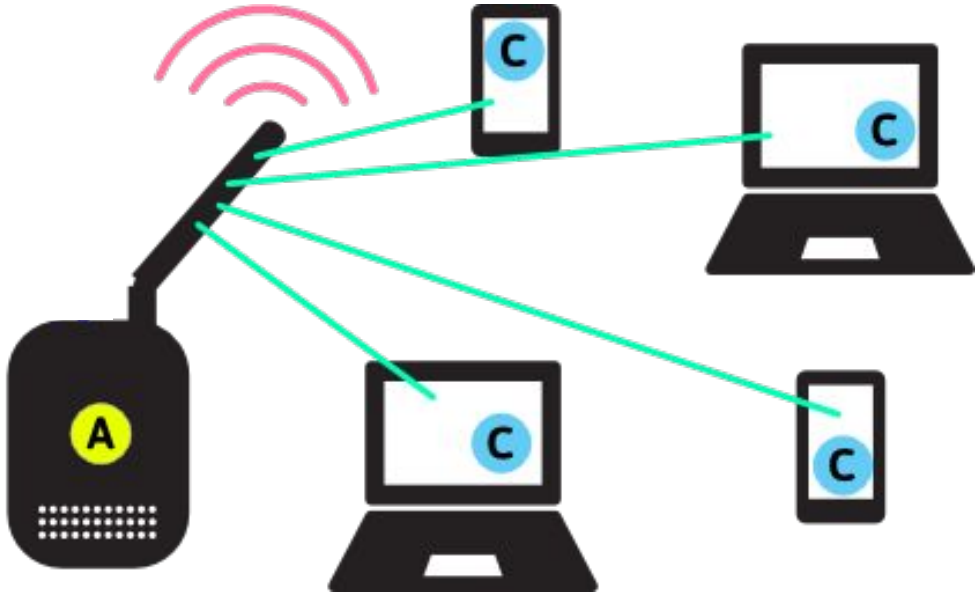
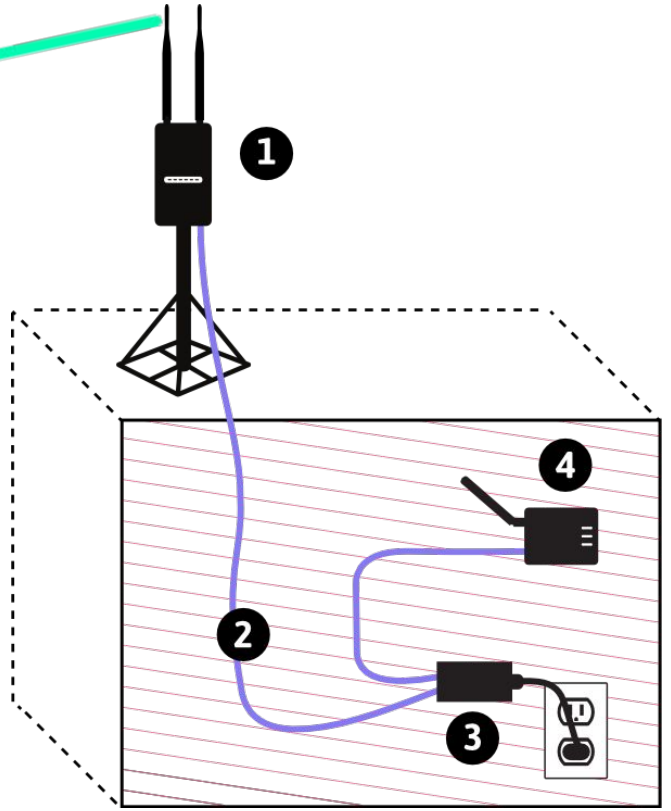
wireless networks

example 5

mesh neighbor
to neighbor
network



local network



this is a free Internet demo