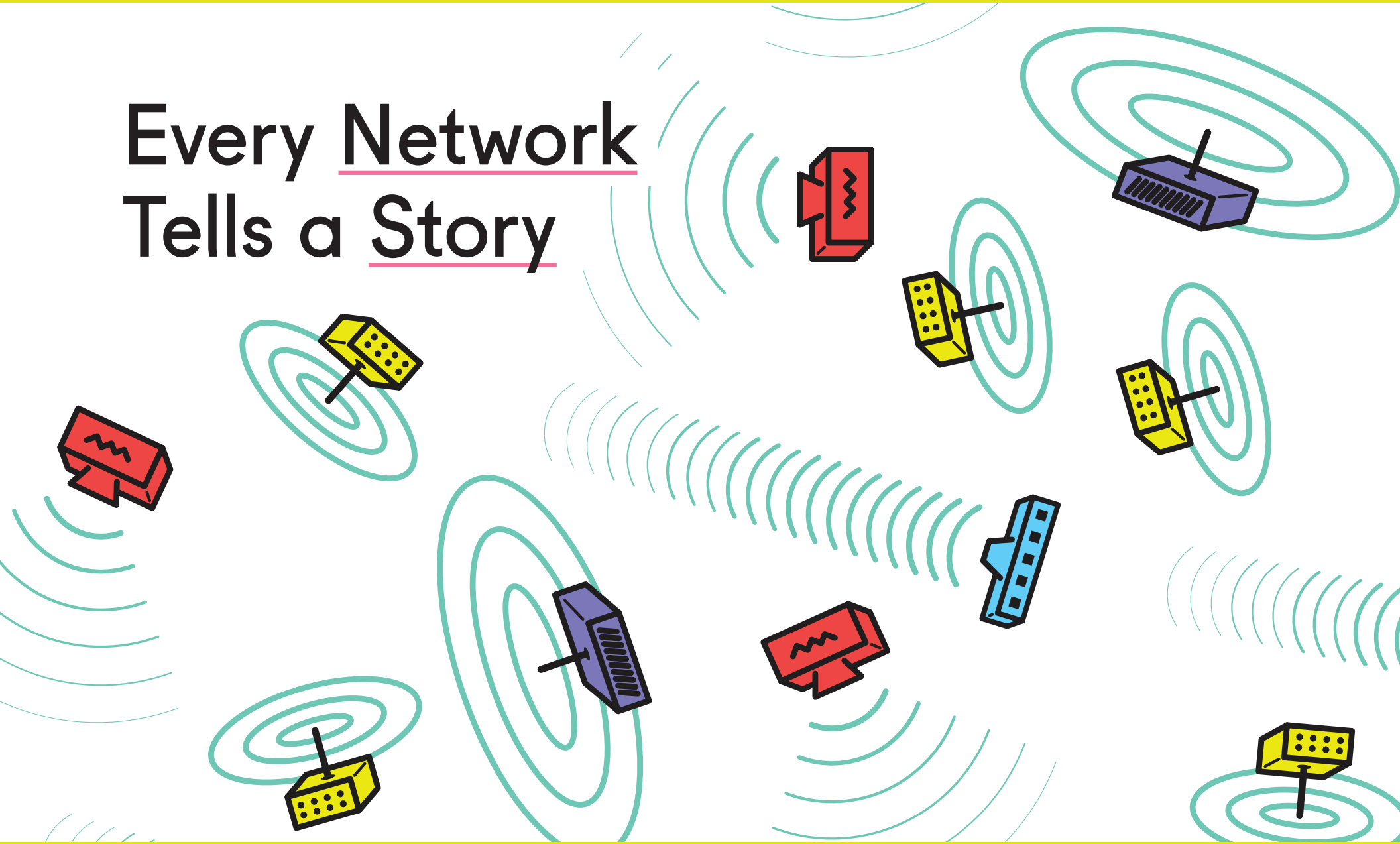
Every Network Tells a Story

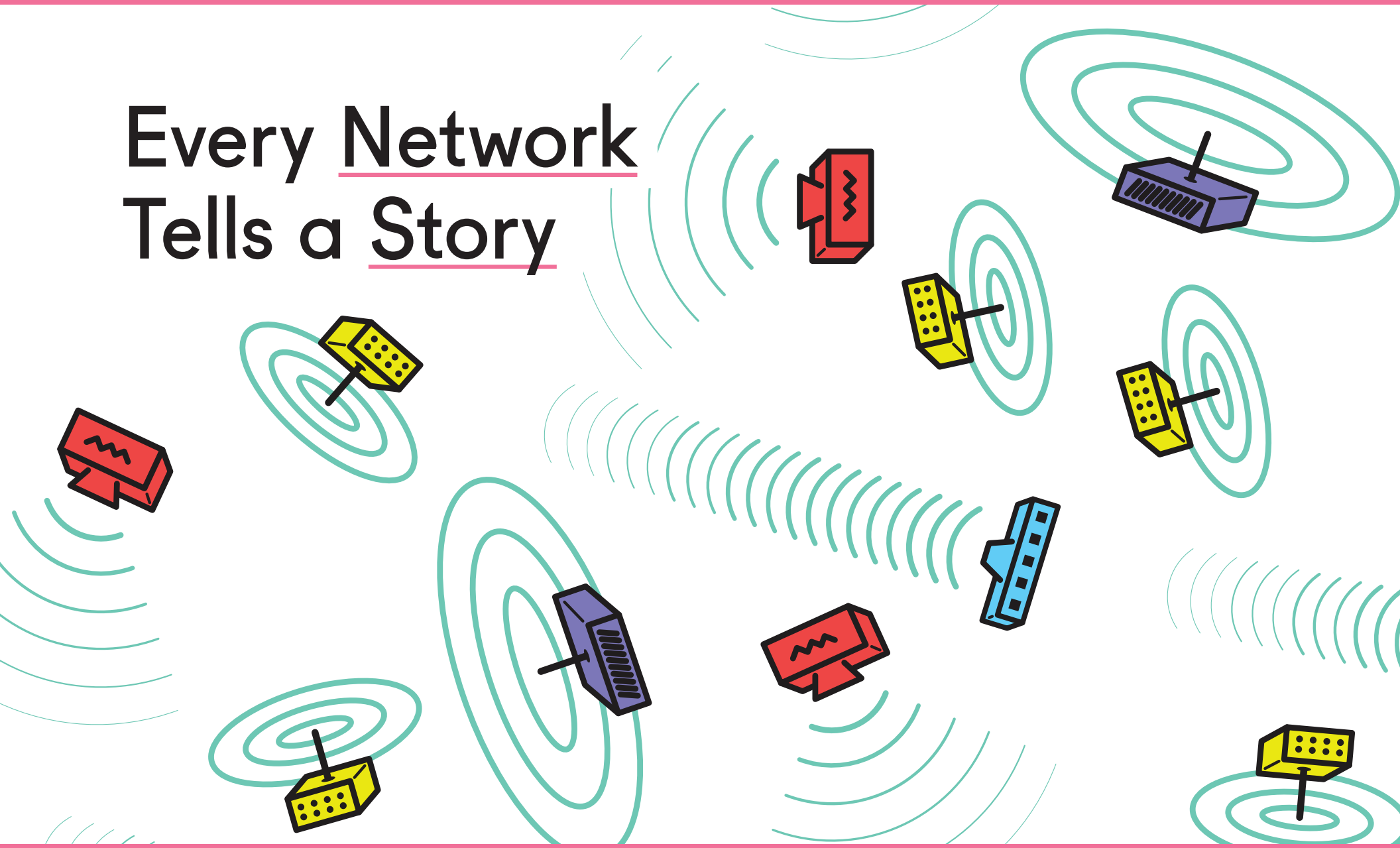


Goal: Everyone understands the basic principles of building a wireless network so that we can build our communications networks together.

Why?

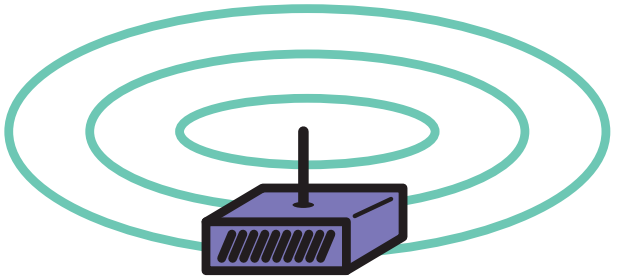
We want to shape the technology to fit our relationships rather than shape our relationships to fit the technology.

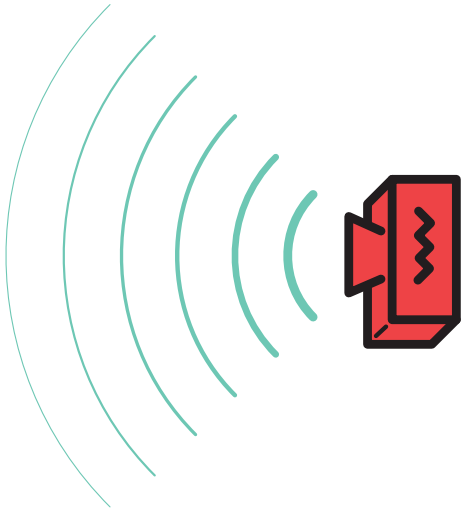
Every Network Tells a Story

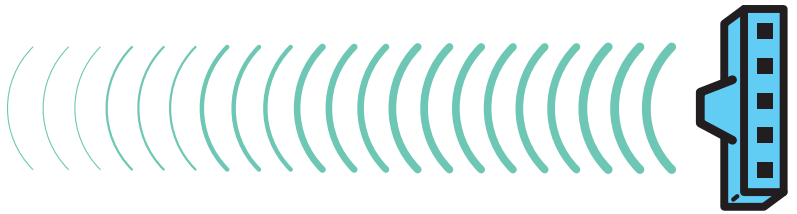


Wireless Networks are
Built with Wireless Routers.

Wirless Routers can:
+ speak
+ listen
+ repeat



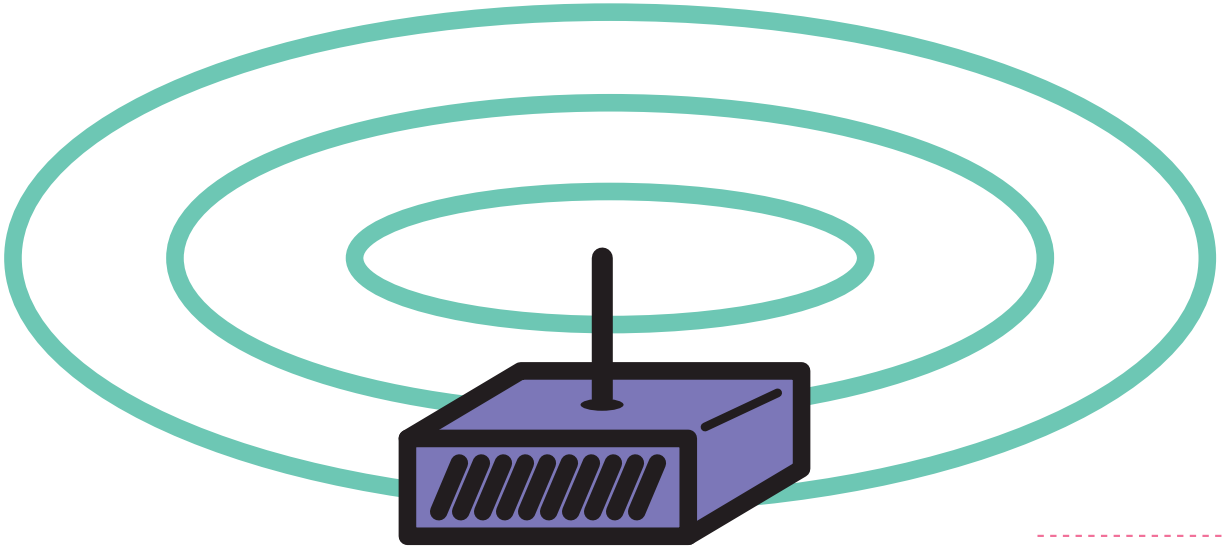




Low-power
All-direction Router
Okay Listener

SPEAK POWER	
LISTEN POWER	

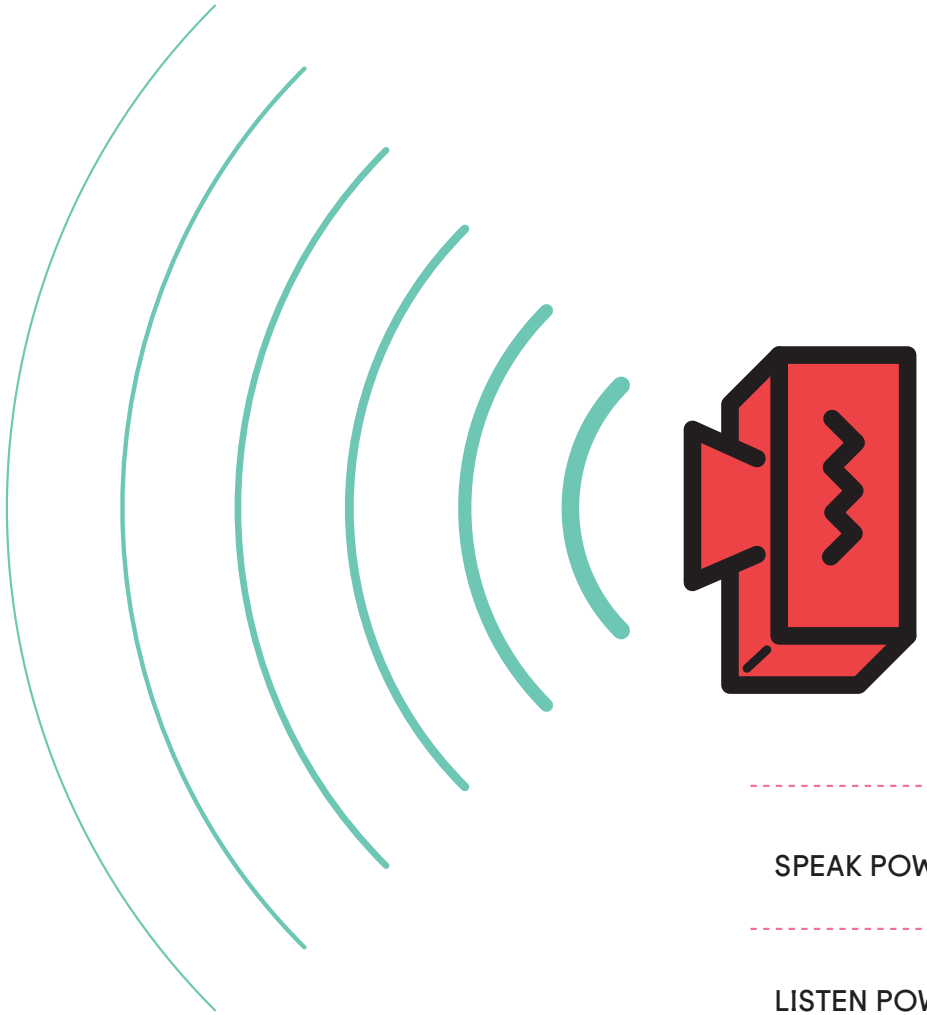
High-power
All-direction Router
Good Listener



SPEAK POWER

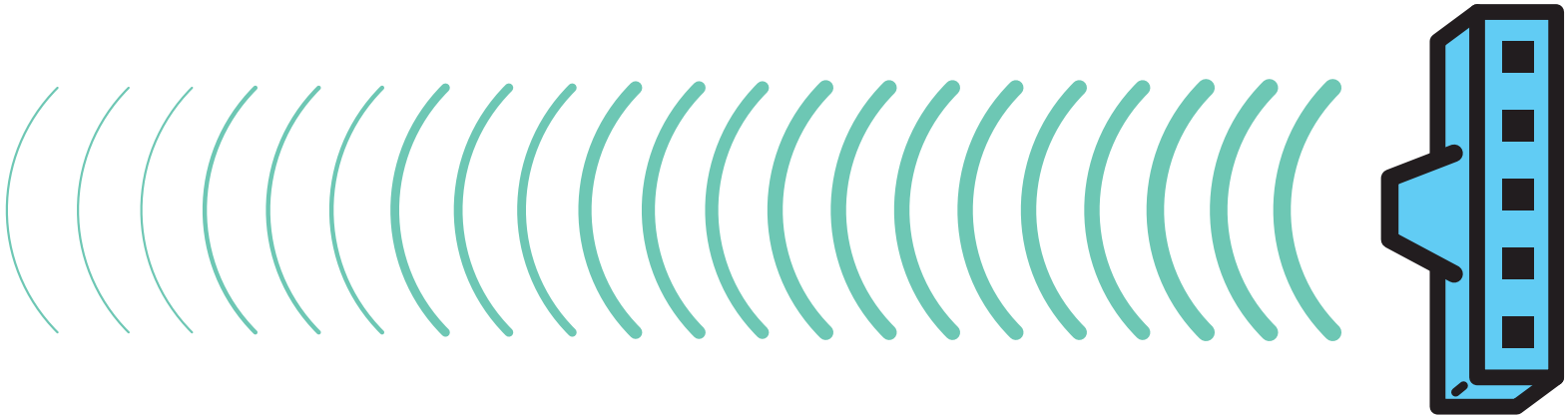
LISTEN POWER

High-power
Sector Router
Great Listener



SPEAK POWER	
LISTEN POWER	

High-power
Focused Router
Great Listener



SPEAK POWER	
LISTEN POWER	

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All-direction Router
Okay Listener

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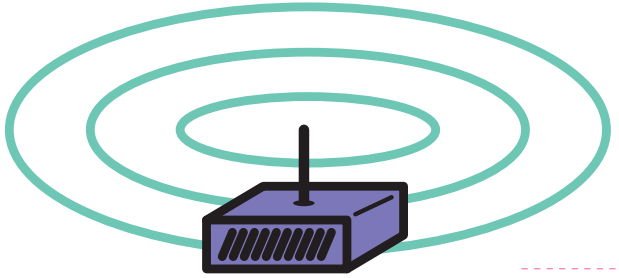
Good Listener



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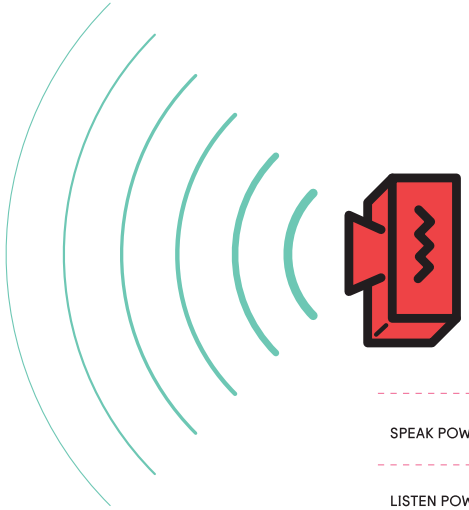

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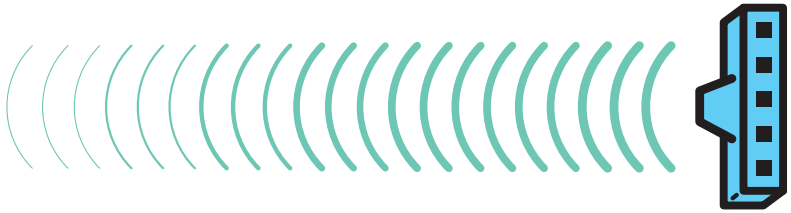
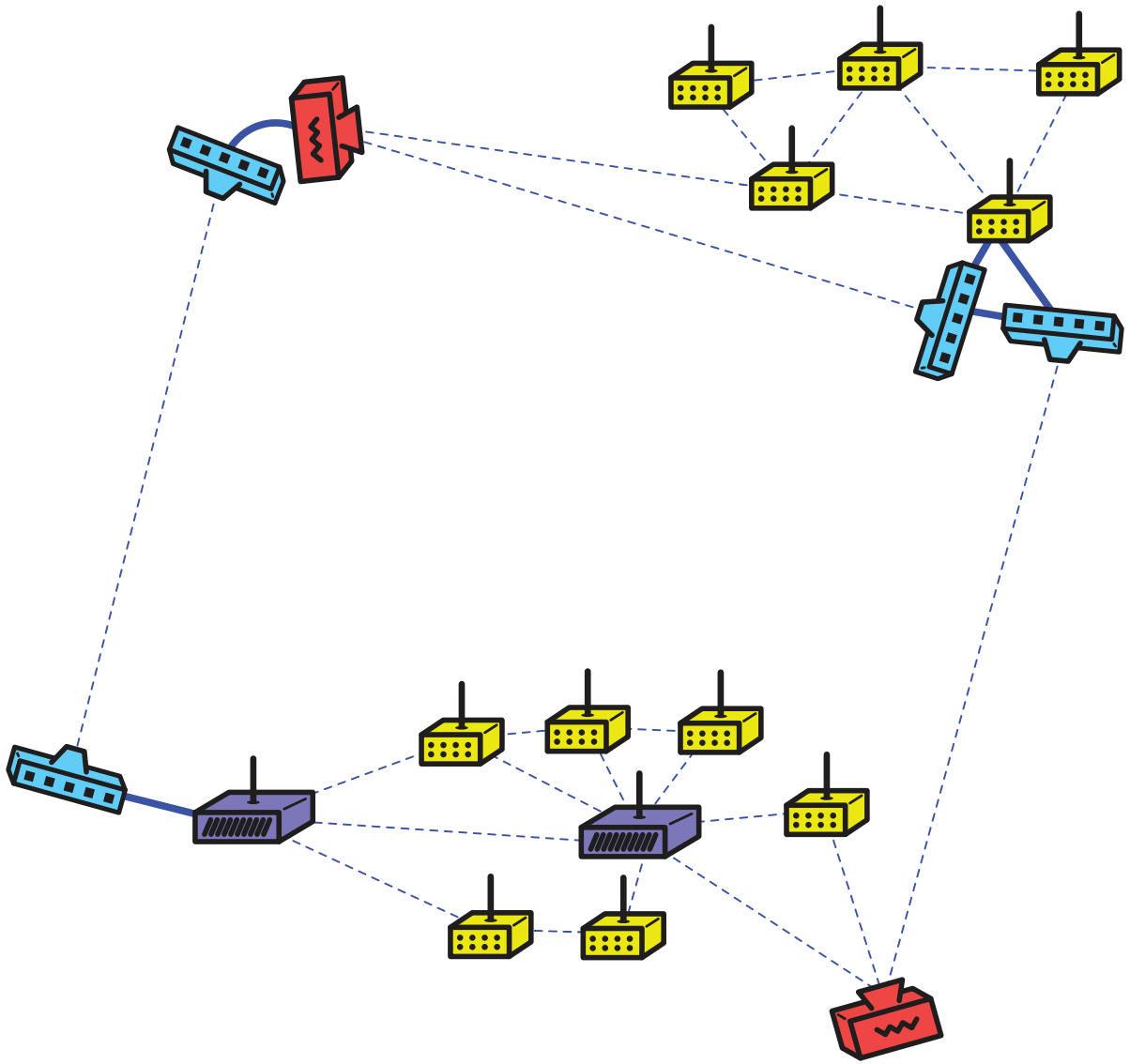
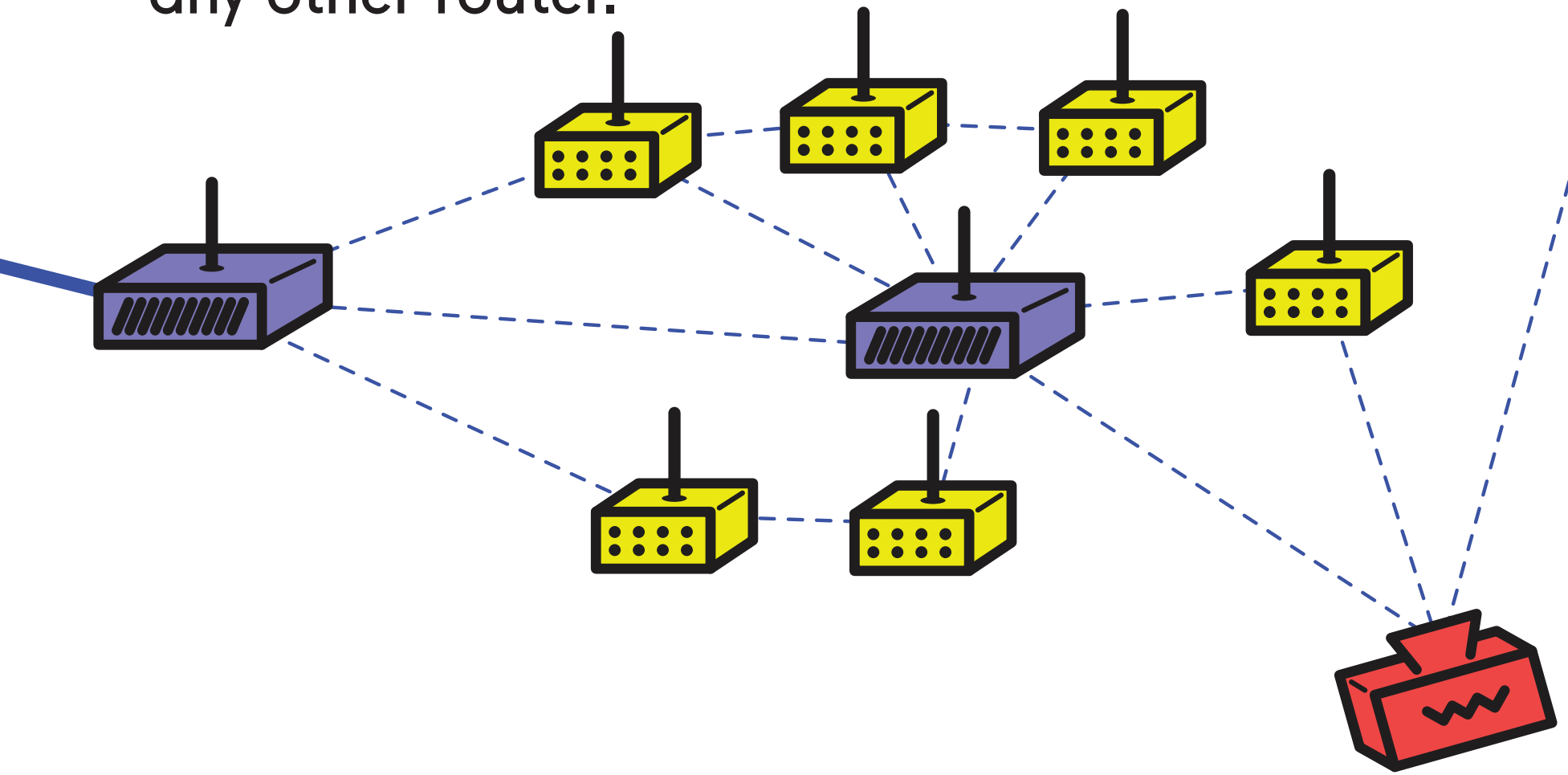


SPEAK POWER

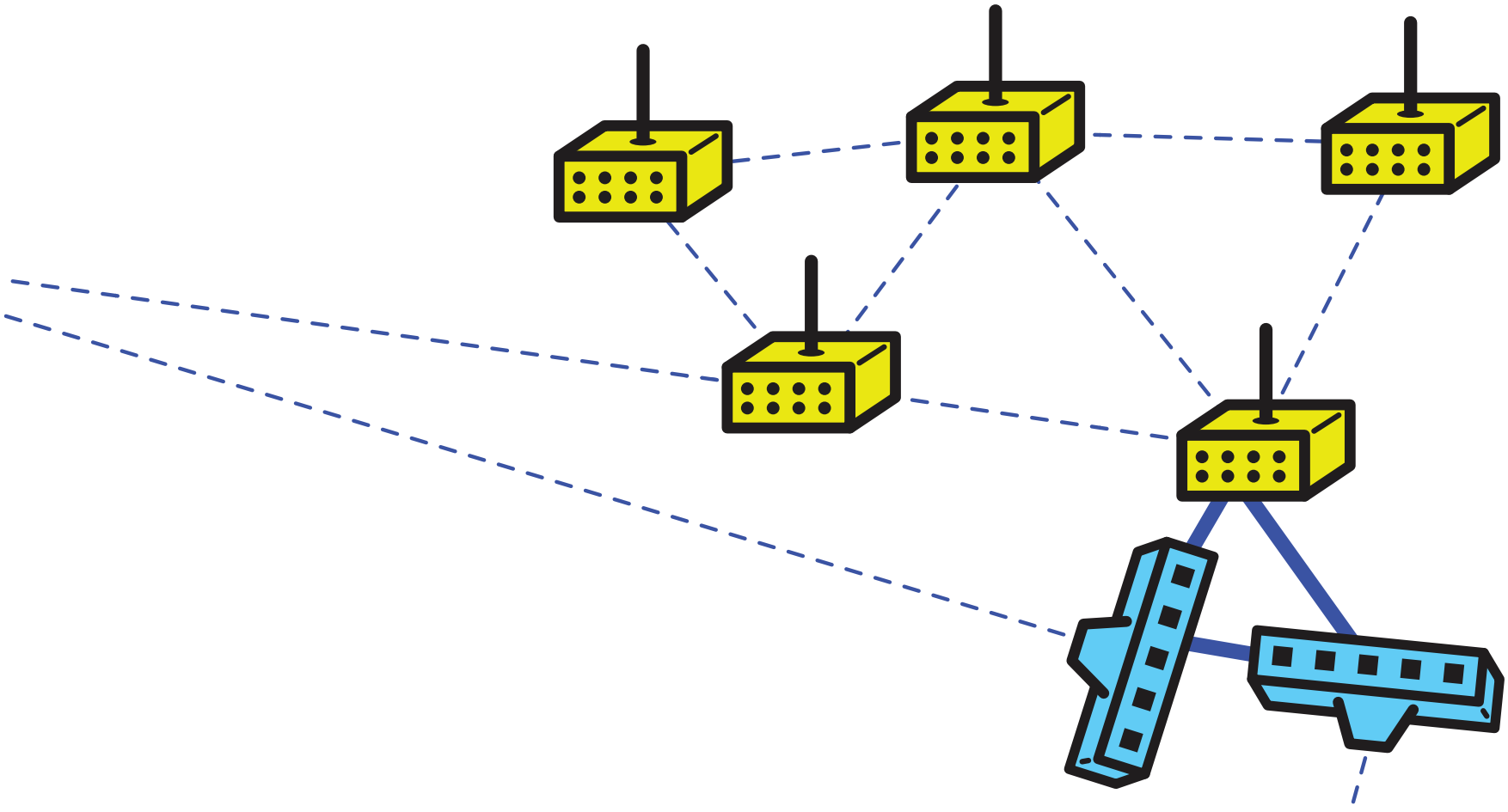
LISTEN POWER



Any router can connect to
any other router.

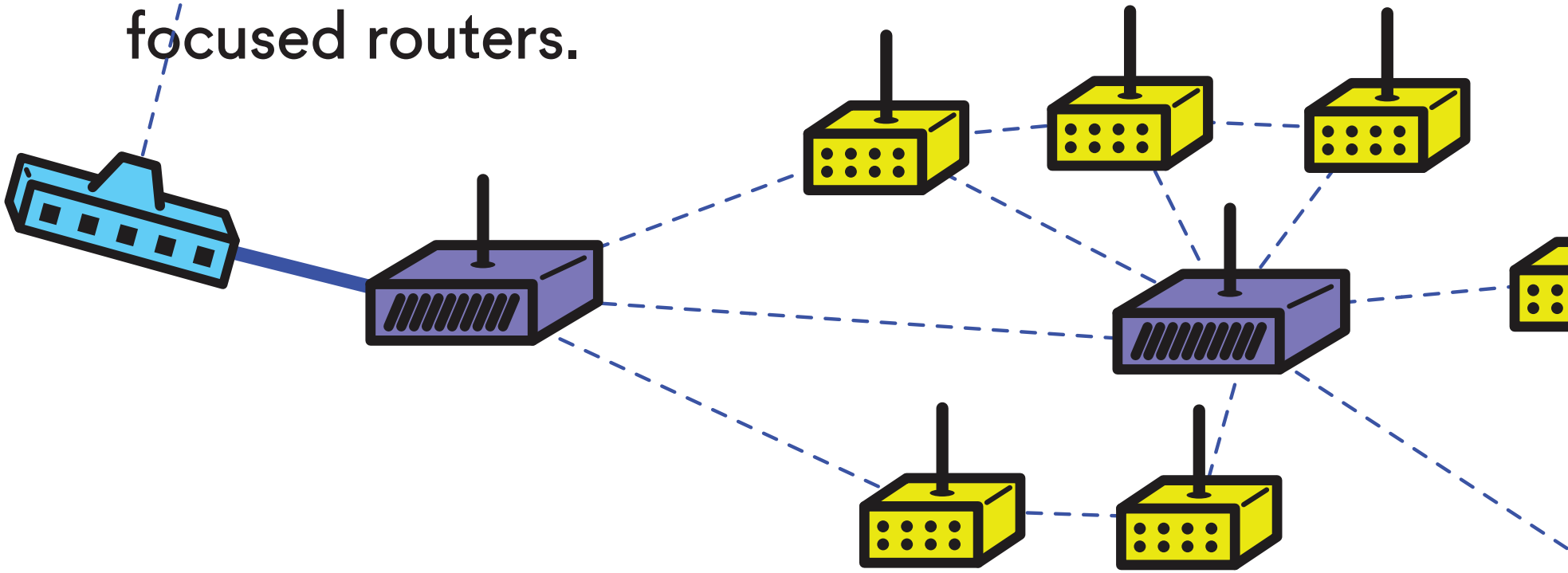


All-direction routers can connect
to many routers in any direction.

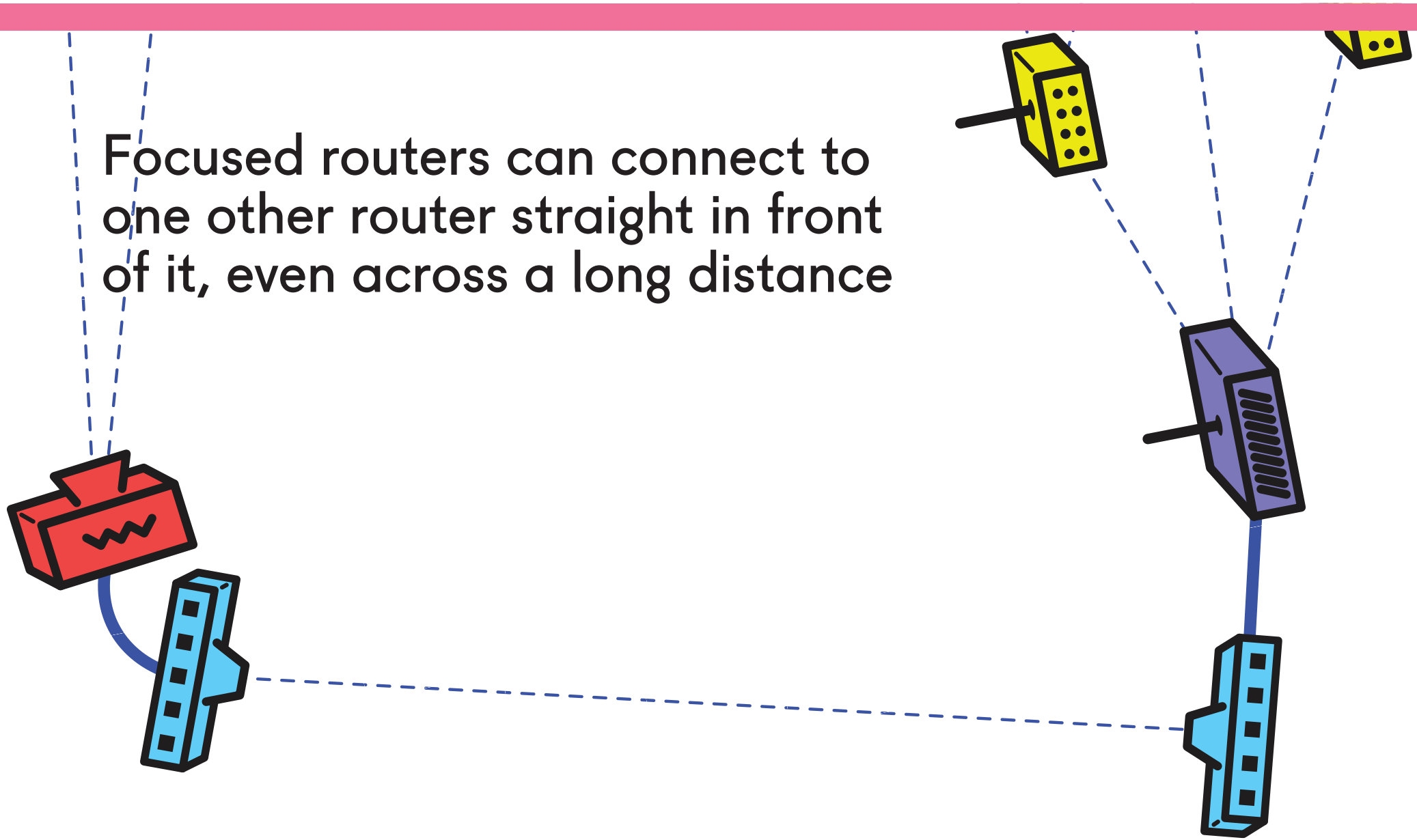


High-power all-direction routers can go further, but not as far as sector or focused routers.

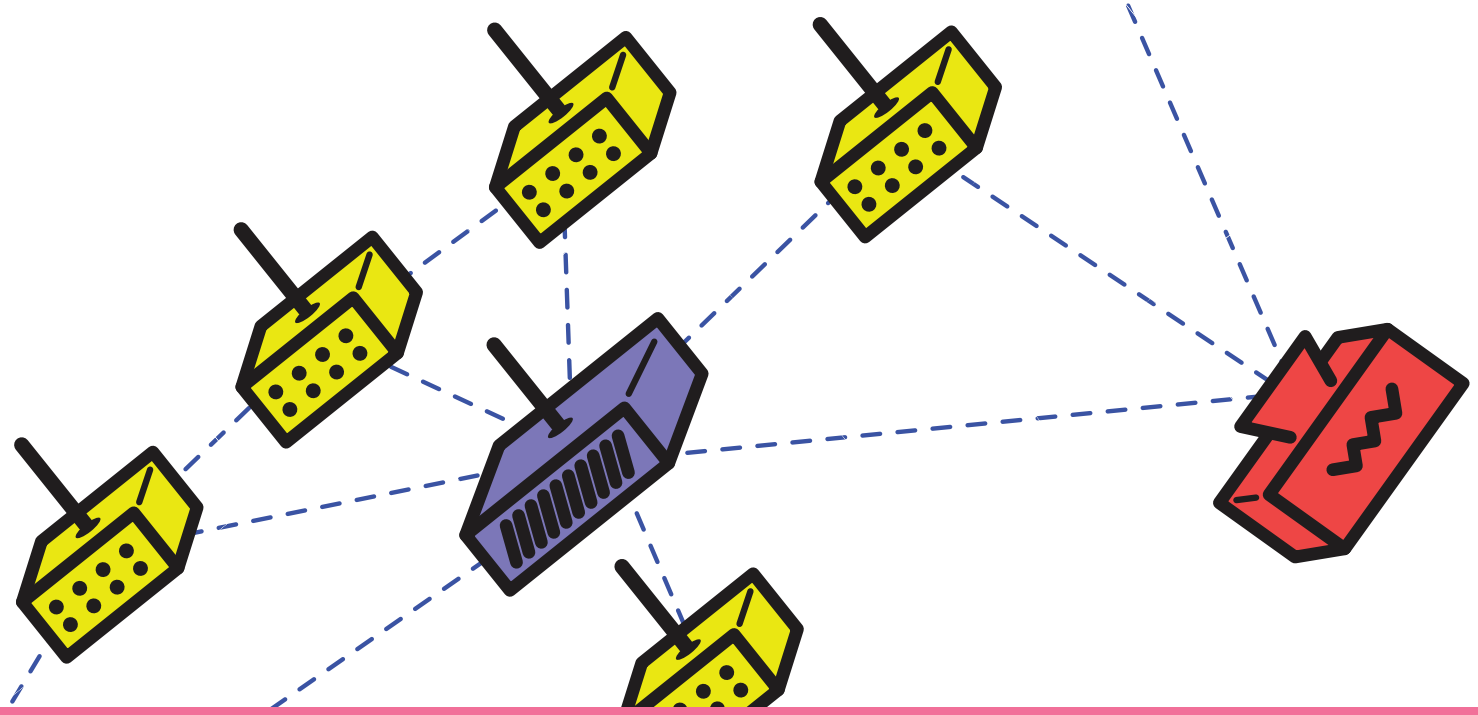
Low-power all-direction routers can connect to nearby devices.



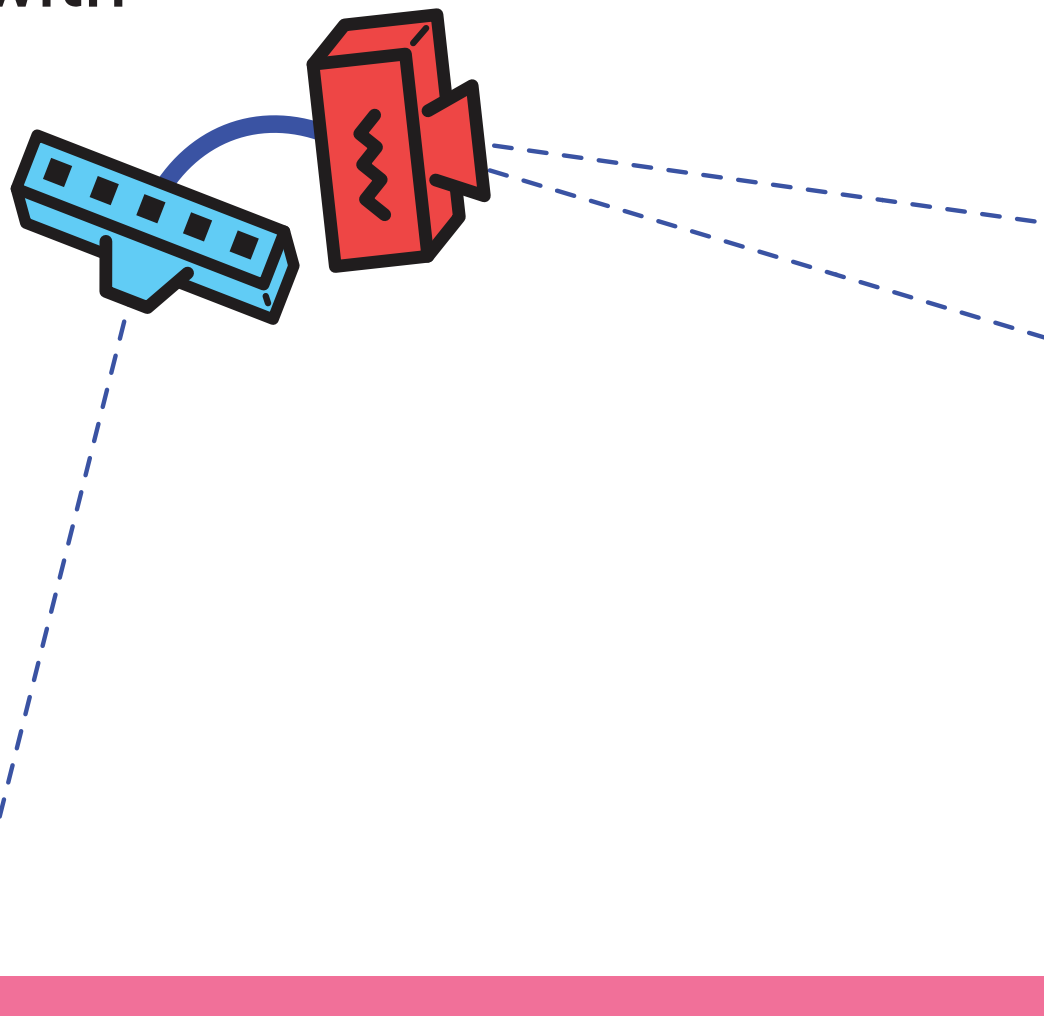
Focused routers can connect to one other router straight in front of it, even across a long distance



Broadcast routers can connect to multiple devices in a general direction, across short or long distances based on the partner device.

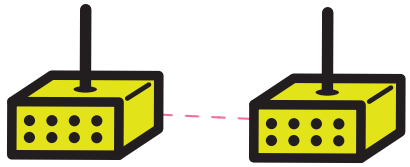


Two or more routers right next to each other can connect with a wire.

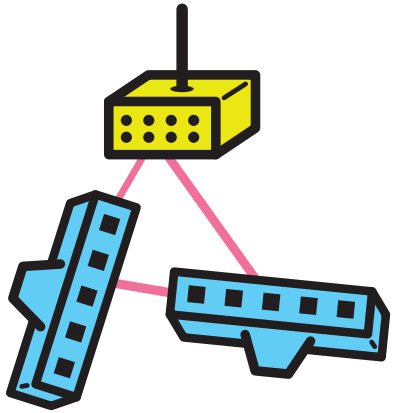


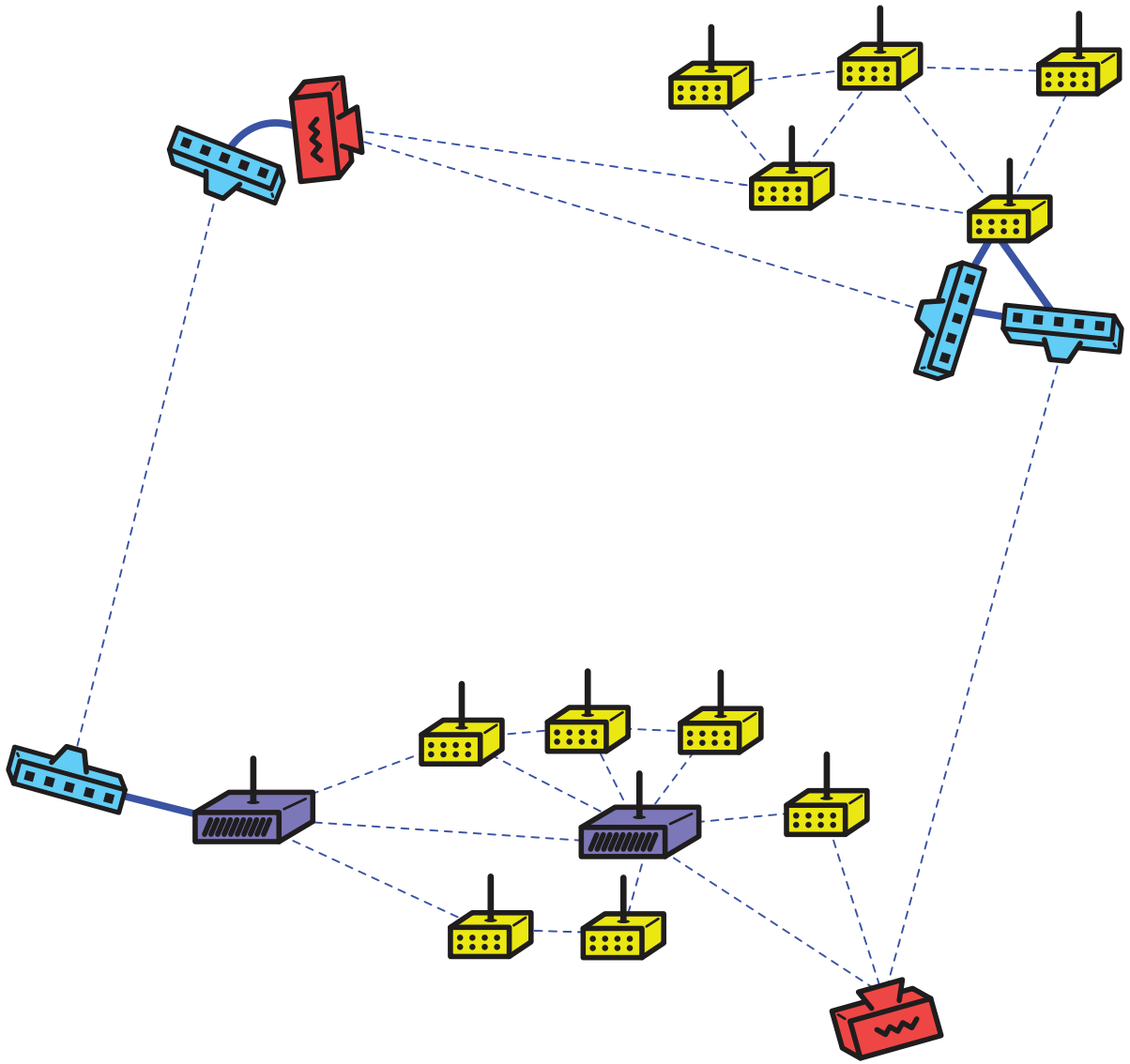
Draw Your Connections:

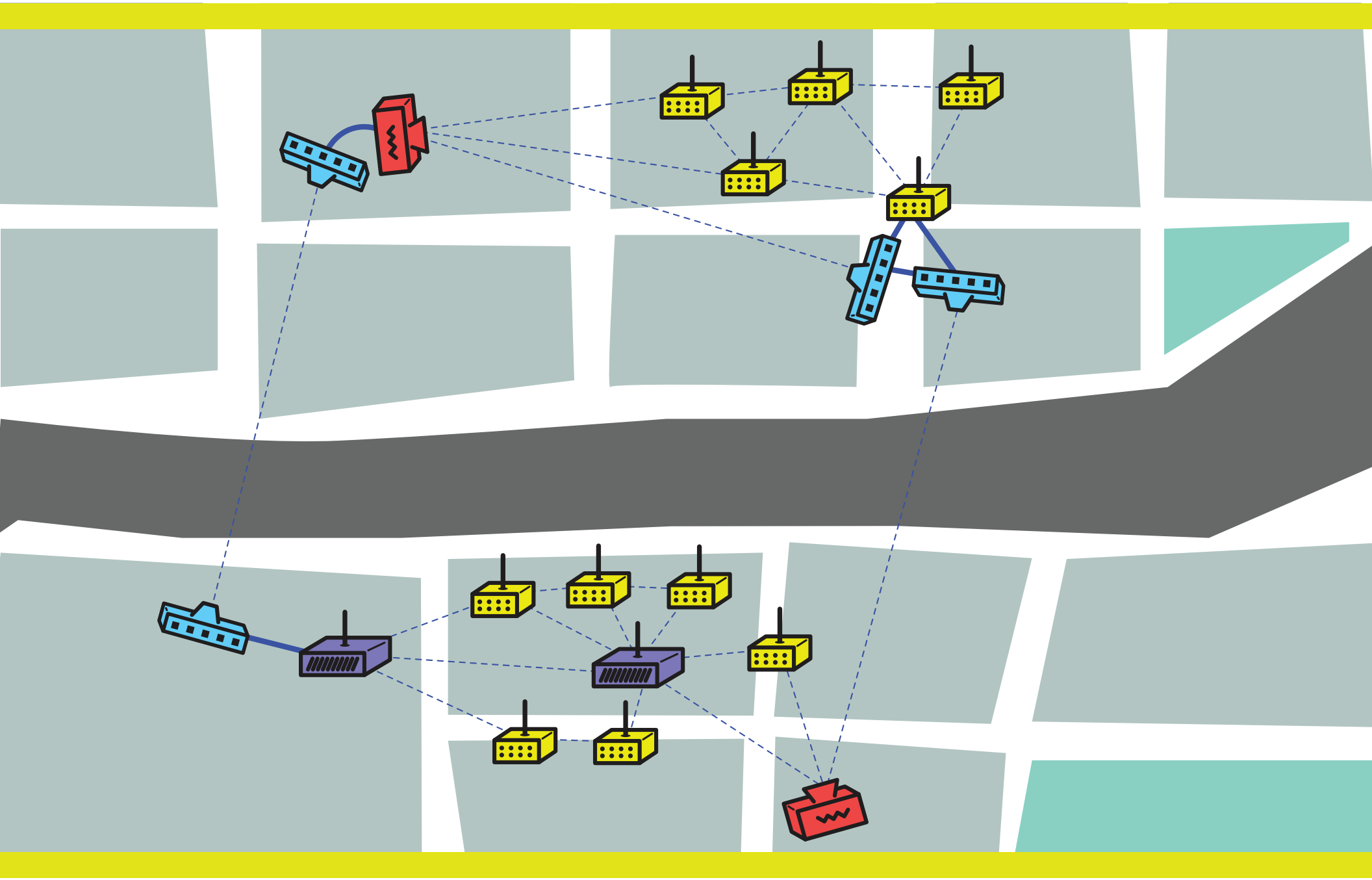
Indicate wireless connections with a dotted line.

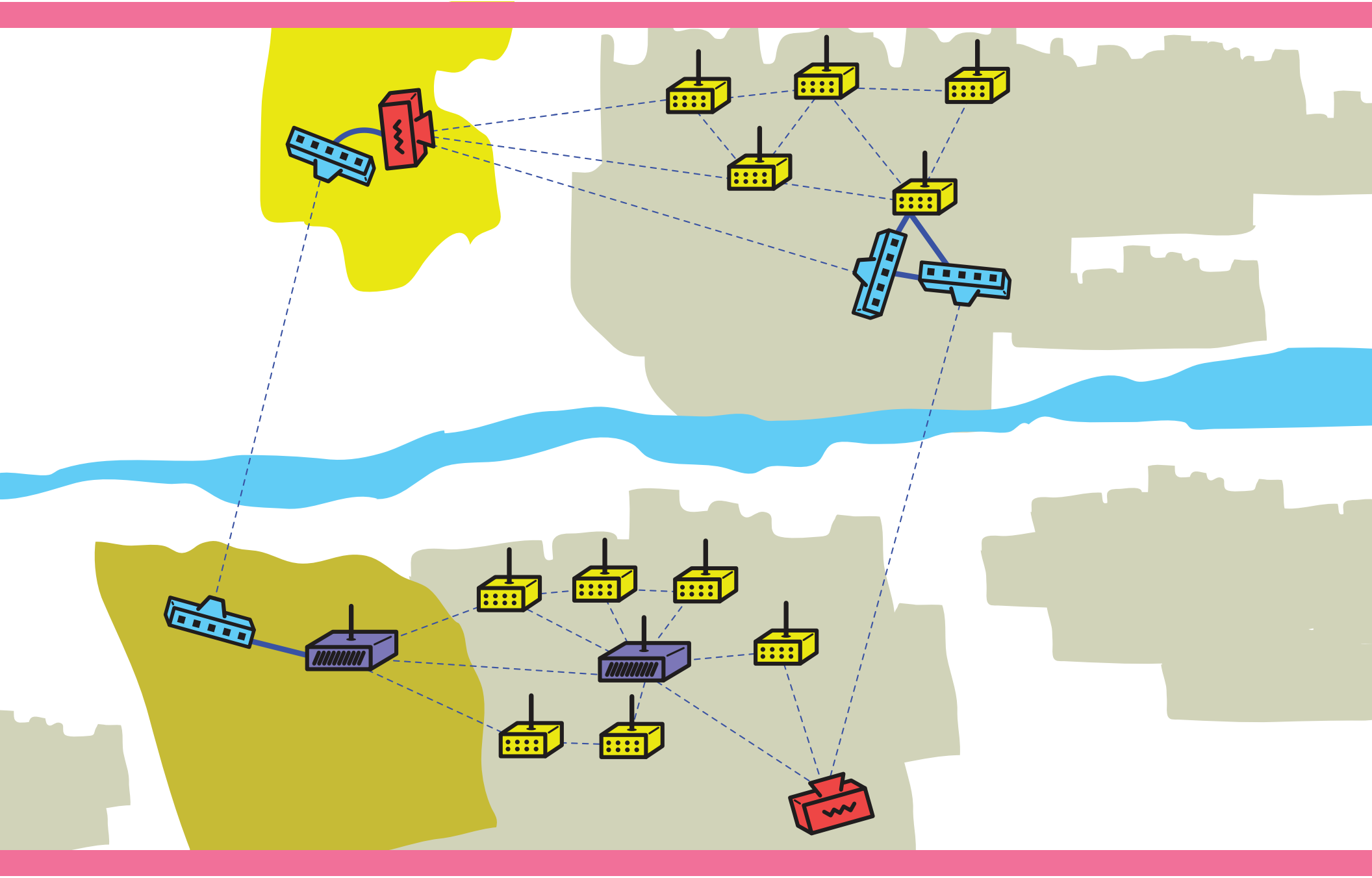


Indicate wired connections with a solid line.









Low-power
All-direction Router
Okay Listener

SPEAK POWER

LISTEN POWER

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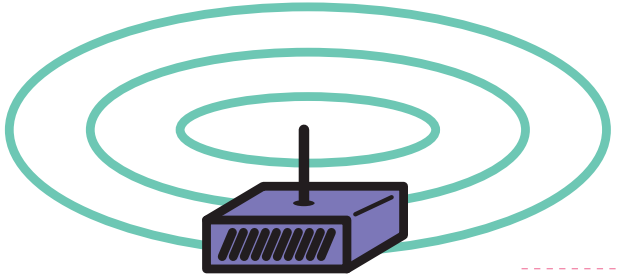
All-direction Router
Good Listener



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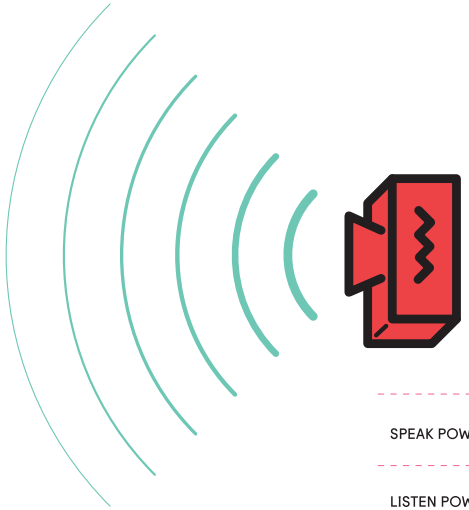
Great Listener



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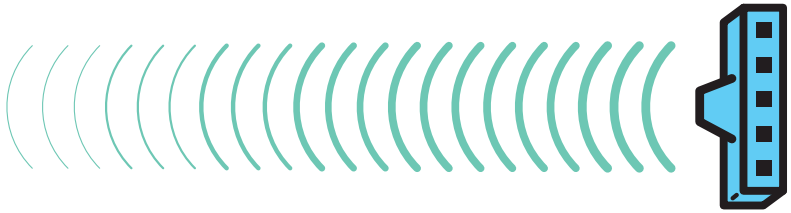

SPEAK POWER

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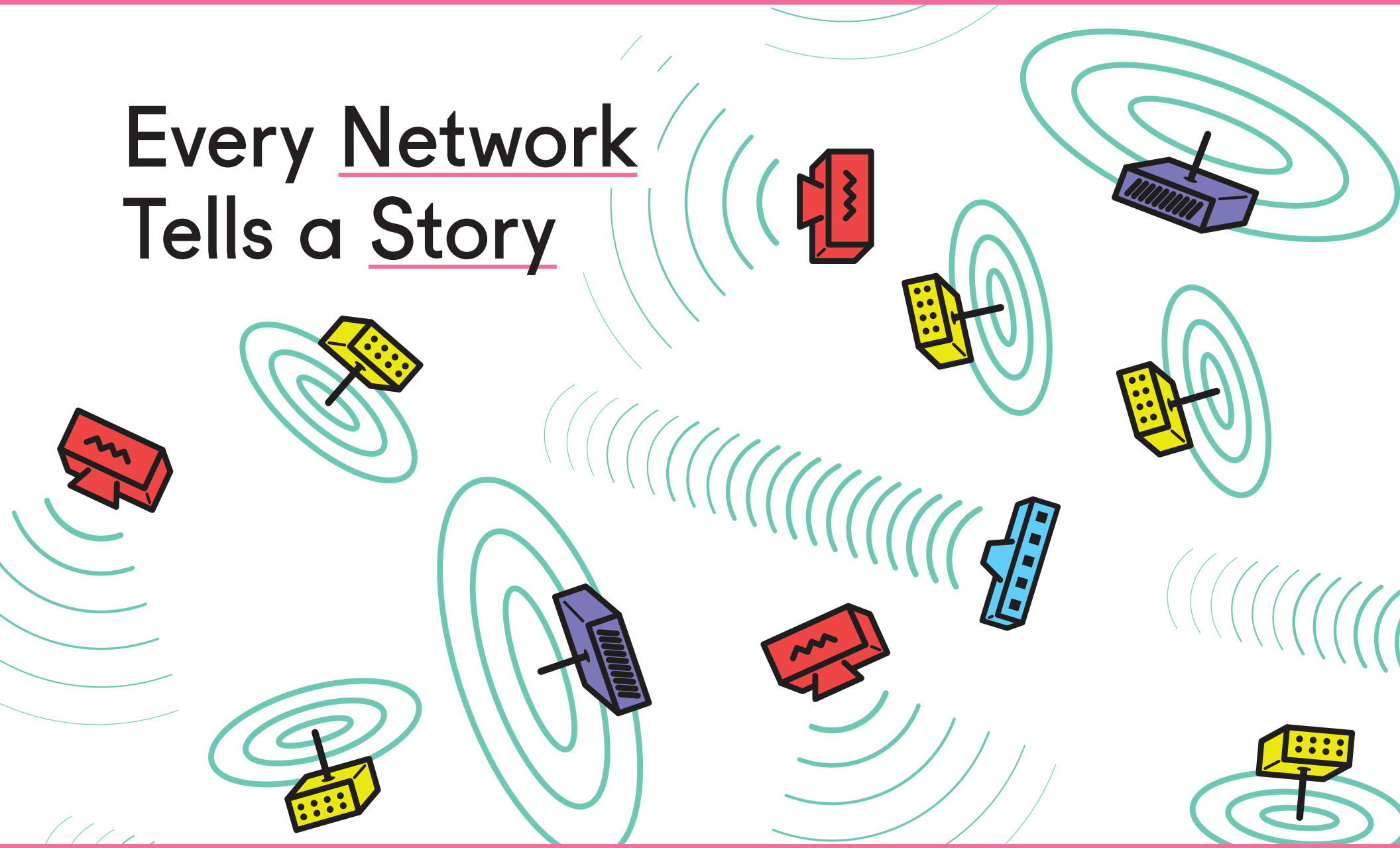
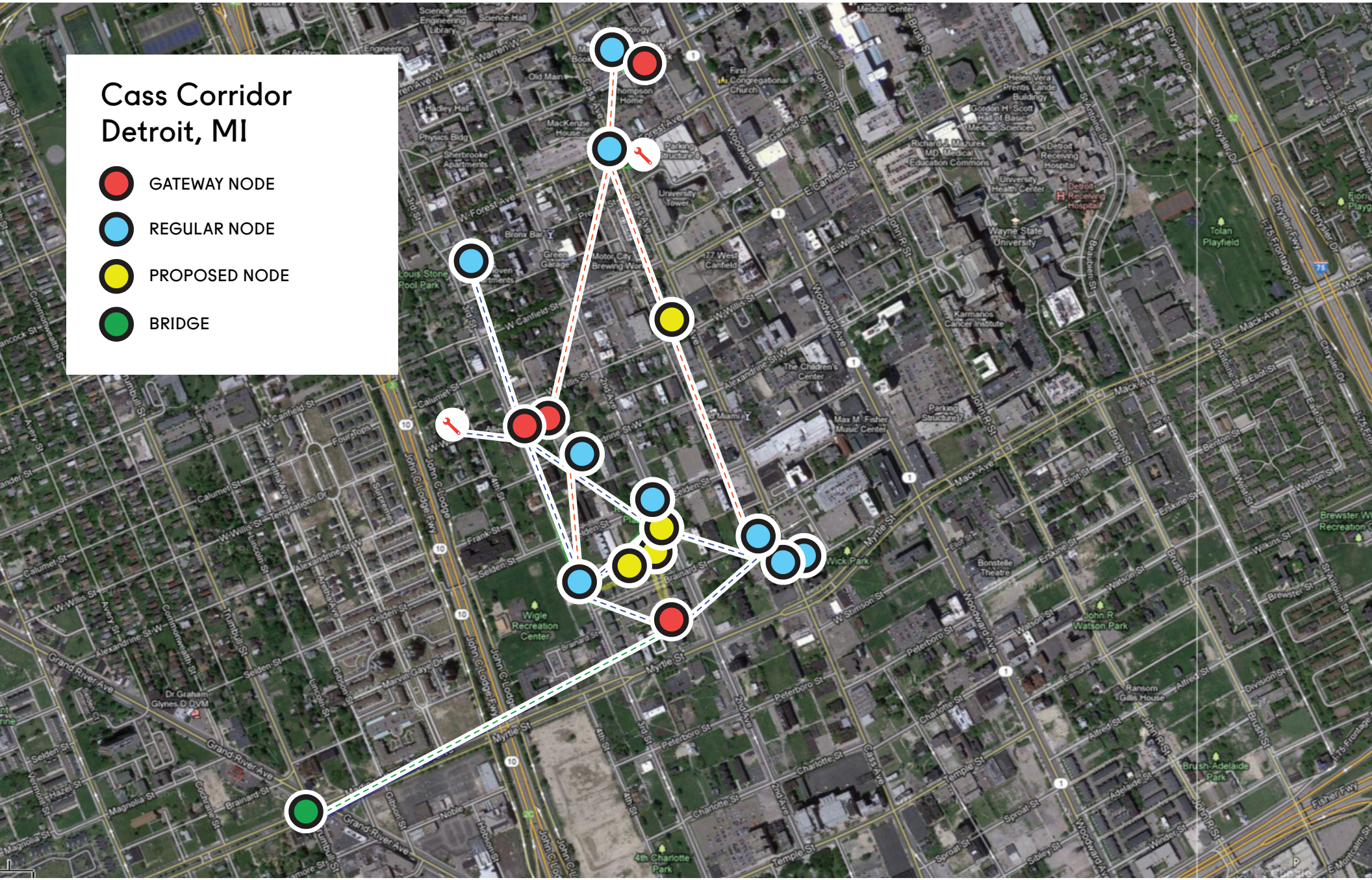
Every Network Tells a Story



+ buildings
+ leaves
+ weather
+ other wireless signals
... can all break your connection. In the real world, every connection is a maybe.


Cass Corridor
Detroit, MI
GATEWAY NODE
REGULAR NODE
PROPOSED NODE
BRIDGE


Red Hook Initiative
Brooklyn, NY
GATEWAY NODE
REGULAR NODE
Coffey Park
Red Hook Neighborhood School
Agnes Y Humphrey School for Leadership
Red Hook Senior Citizens Center
Red Hook Library
Redhook Gospel Tabernacle
Red Hook Cold Storage
Eastern Waste of New York
Sovereign Bank
MetroPCS
Anthonys Pest Control Brooklyn
Rocky Sullivan's of Red Hook
Linda Tool & Die
Jofaz Transportation
Carvart Glass
Erie Basin
Botanica
Time Record Storage
ER Butler & Co
Trans Express
Arc Electrical & Mechanical
Two Friends Auto Sales
Defonte's Sandwich Shop
Brooklyn Rug Clean
Famous Deli
C-Town
ErrandBoy4U
Friendship Trading
Pier Glass
Saipua
Baked
Centre Mall
Bush St
Lorraine St
Creamer St
Bay St
Sigourney St
Mill St
Columbia St
Hicks St
Henry St
Dwight St
Richards St
Van Brunt St
Conover St
Beard St
Reed St
Coffey St
Wolcott St
Dikeman St
Sullivan St
King St
Pioneer St
Verona St
Delevan St
Van Dyke St
Otsego St
Hamilton Ave

	RADIO POWER	ANTENNA DIRECTION	SPEAK POWER	LISTEN POWER	DEVICE COST
PICOSTATION UBIQUITI	28 dBm	OMNI			$62
OM1P OPEN MESH	18 dBm	OMNI			$50
FONERA 2100 FON	18 dBm	OMNI			$30
NANOSTATION UBIQUITI	24 dBm	60°			$89
ROCKET M UBIQUITI	28 dBm	120°			$90 [WITH ANTENNA] $250