

MeshDynamics

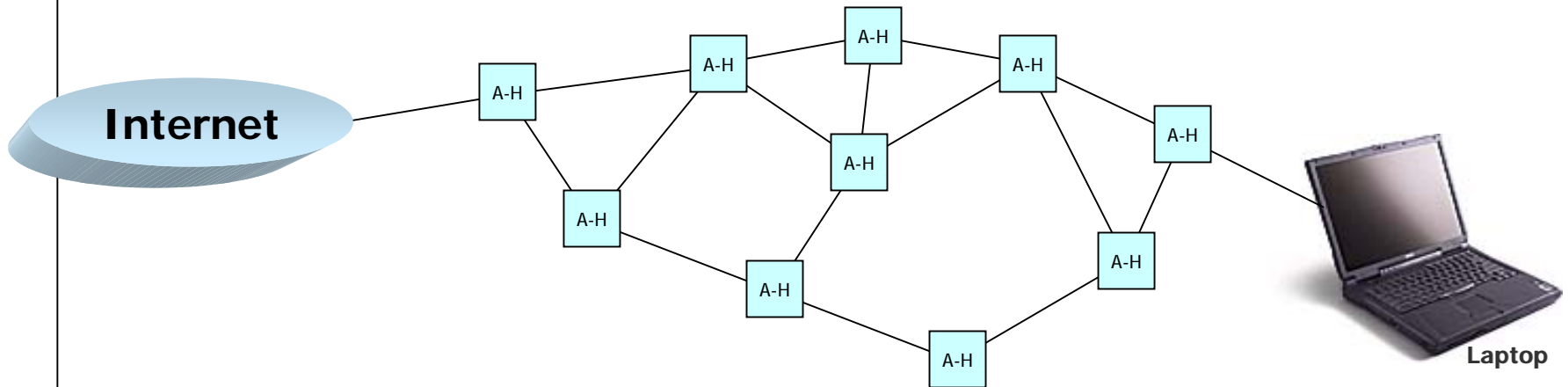
Structured Mesh™ for Force Protection

Francis daCosta

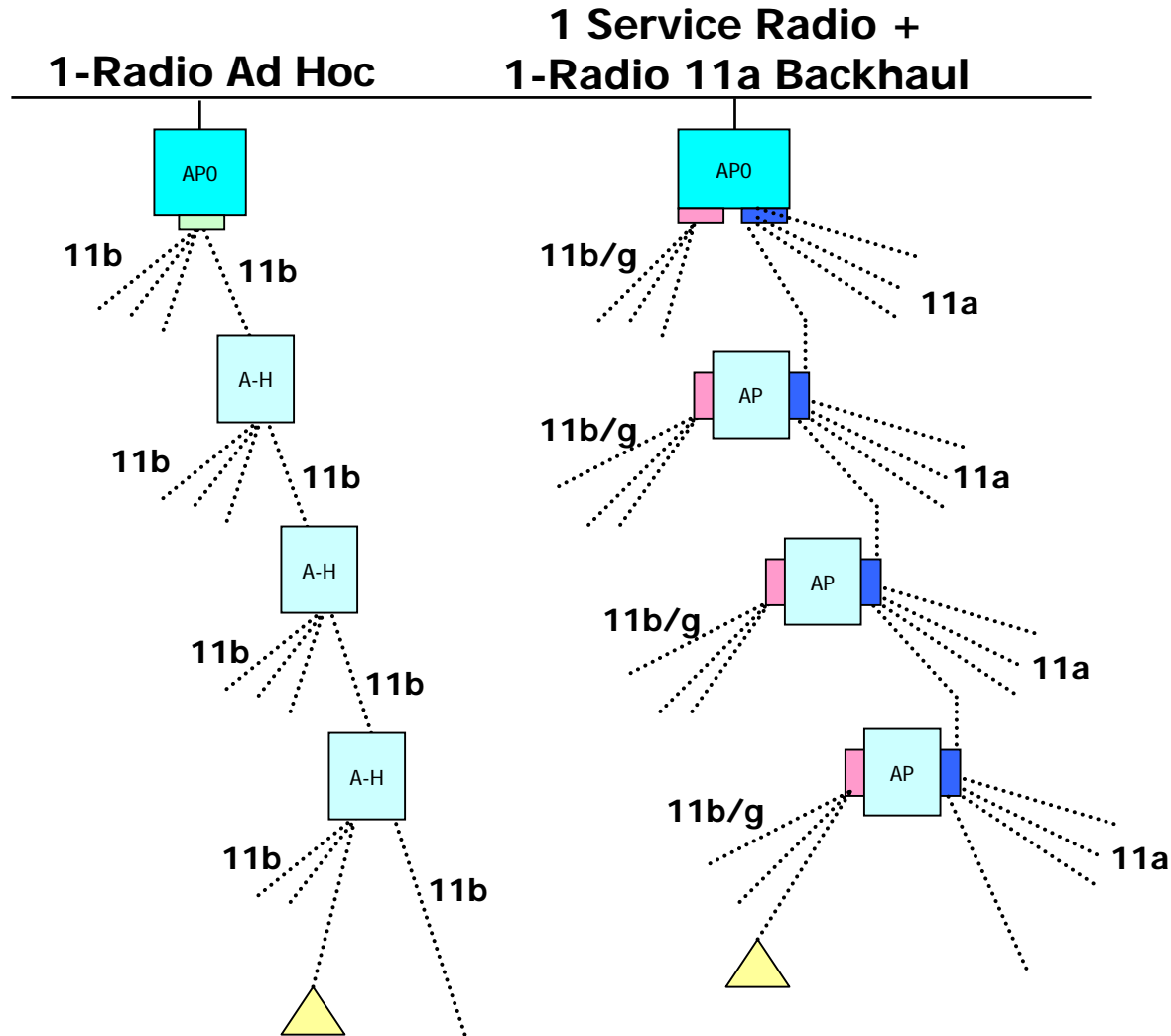
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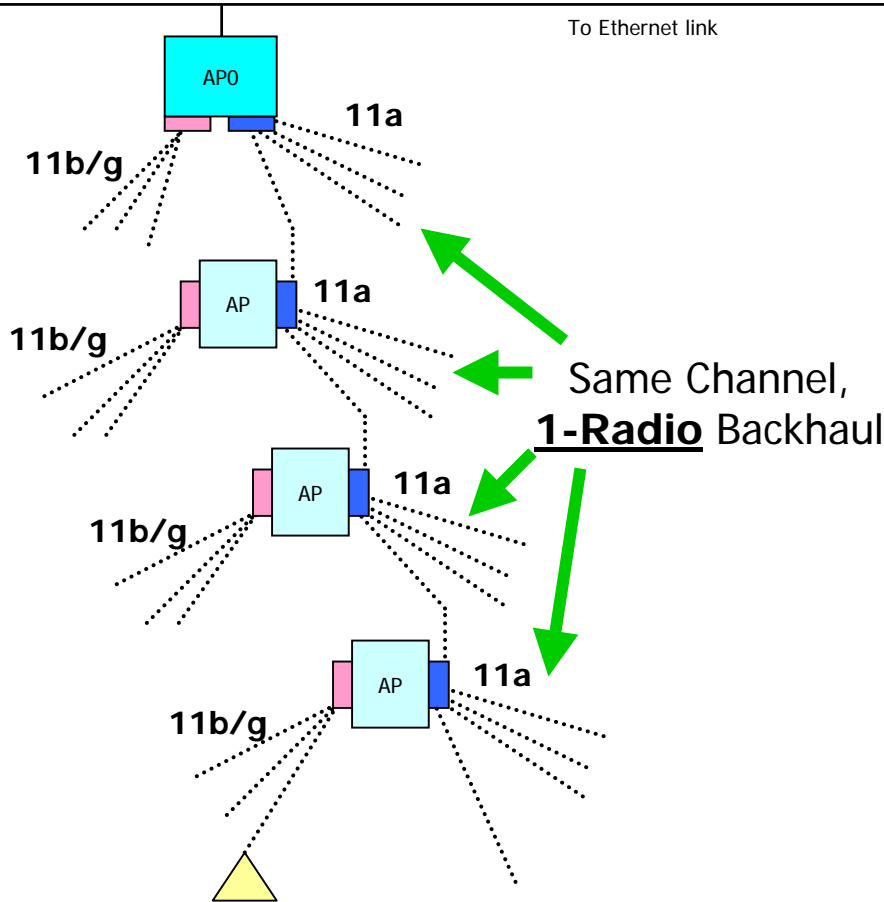
- A conventional wireless Mesh is an array of wireless nodes where any node can talk to any node (ad hoc fashion).



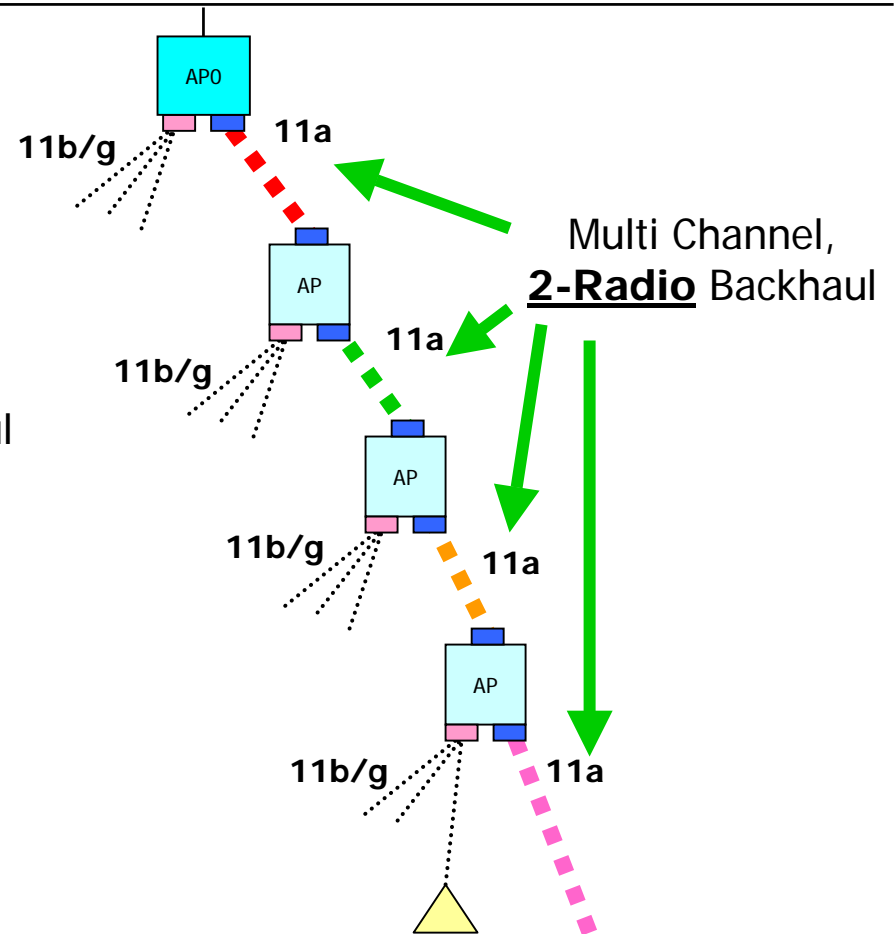
- A Mesh provides:
 - Additional range for a wireless network when wiring to access points is too expensive or painful.

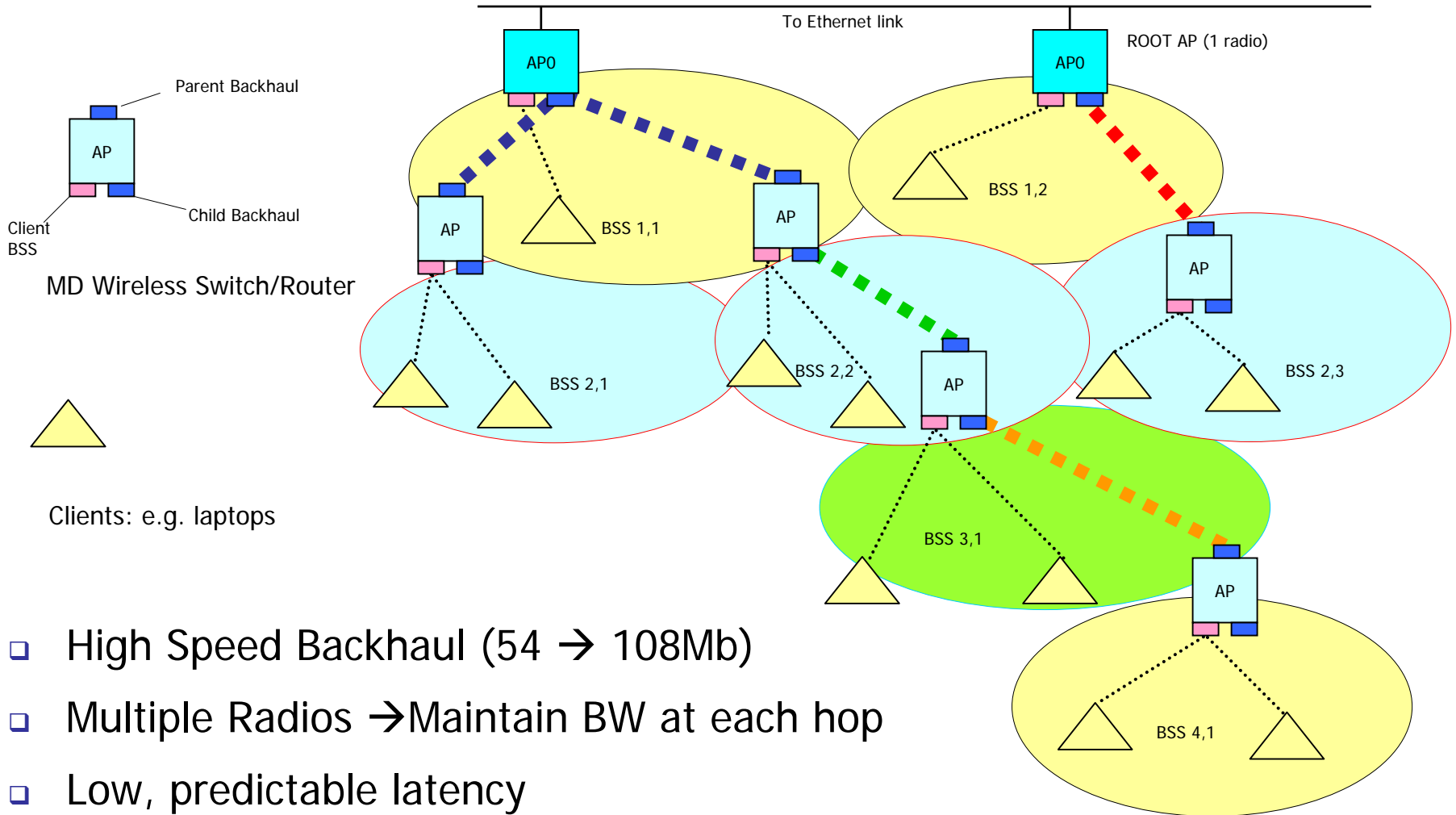


1 Service Radio + 1-Radio 11a Backhaul

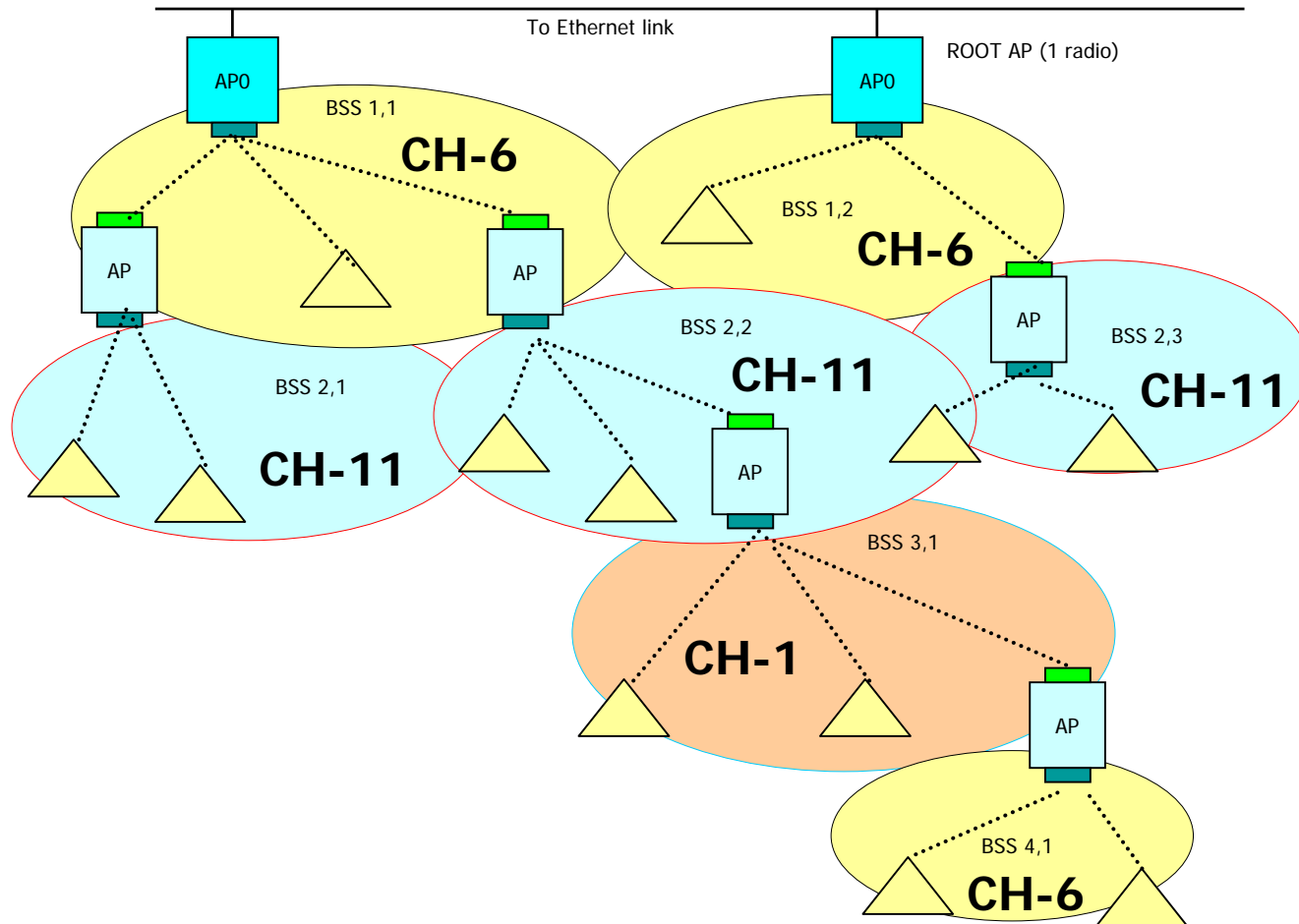


MeshDynamics 3-Radio with 2-Radio 11a Backhaul





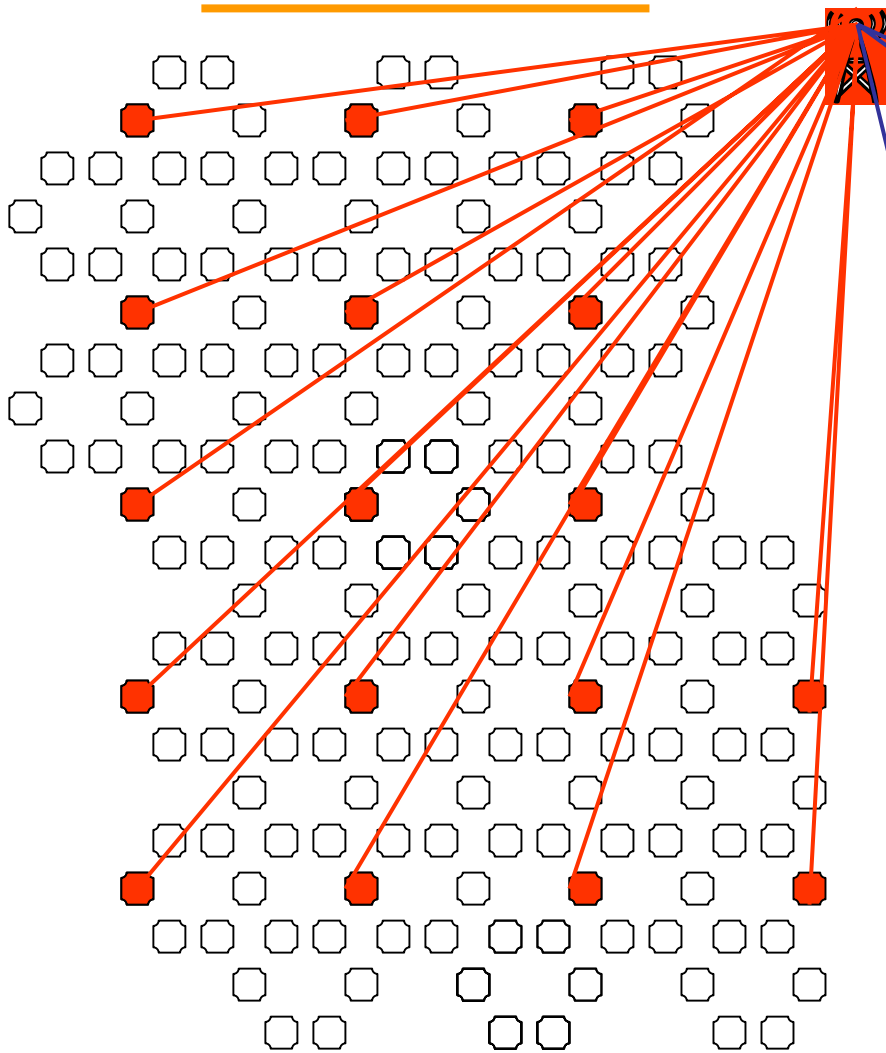
- ❑ High Speed Backhaul (54 → 108Mb)
- ❑ Multiple Radios → Maintain BW at each hop
- ❑ Low, predictable latency
- ❑ Emulates Wired Switch Stack



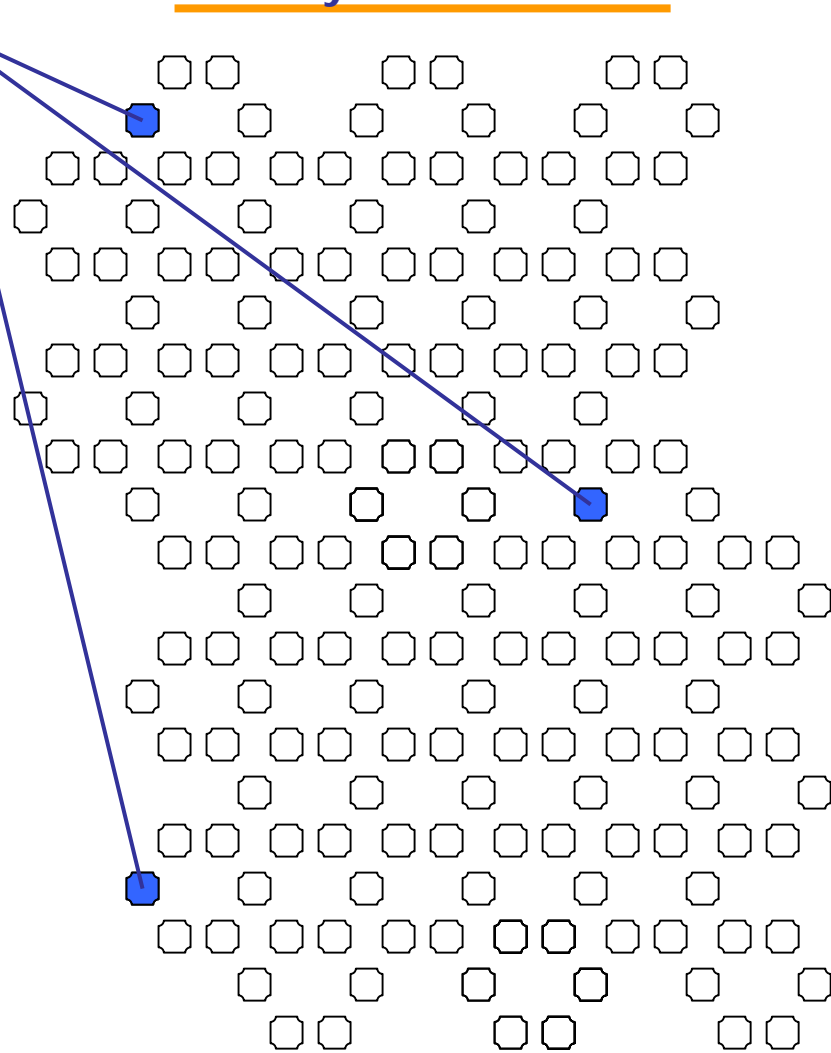
Conventional Mesh Means More Backhauls

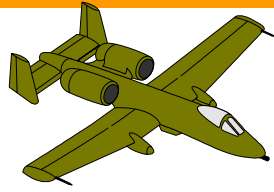
- Wireless backhauls add \$10k to \$30k each

Conventional Ad Hoc

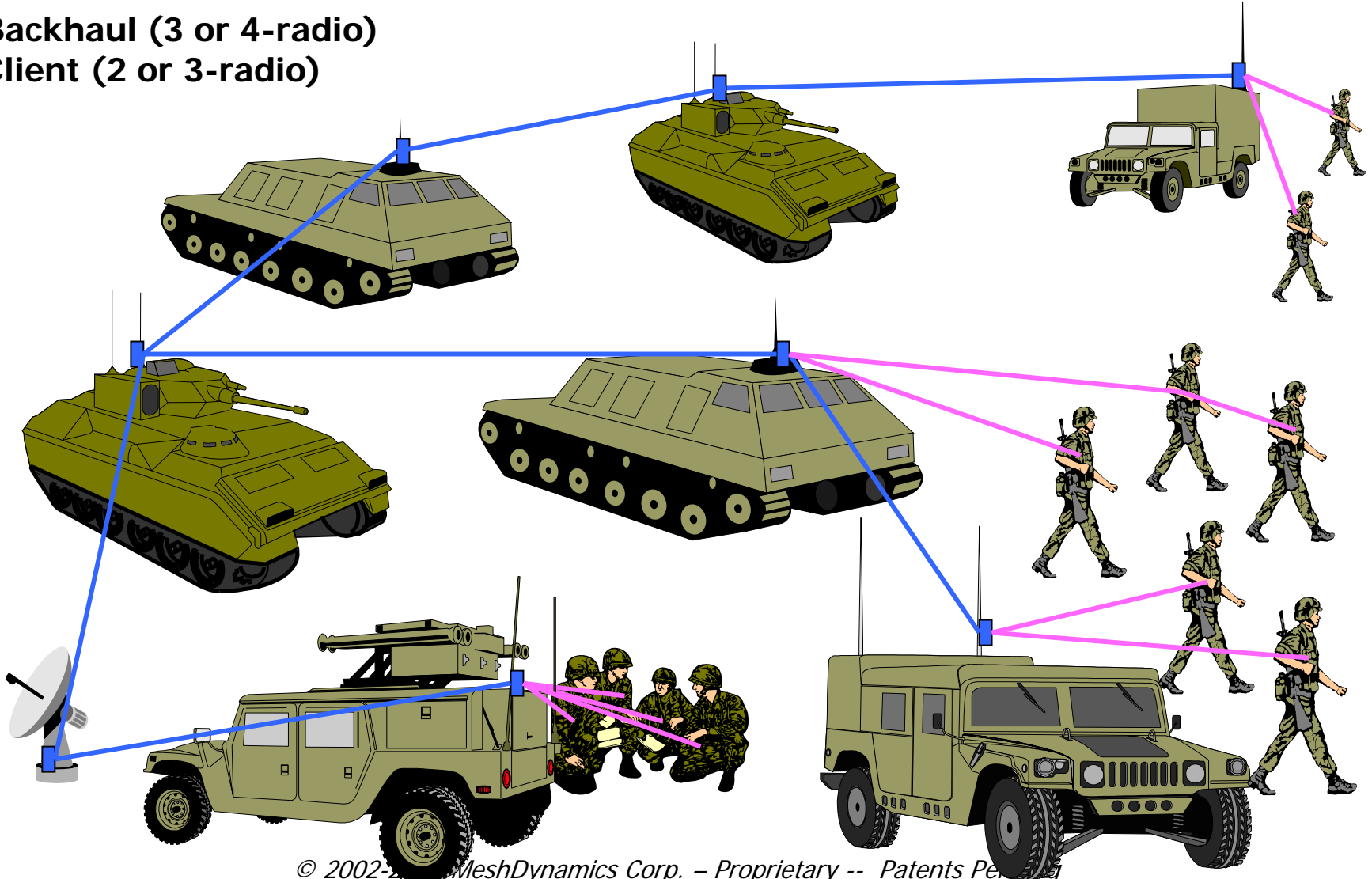


MeshDynamics 3-Radio

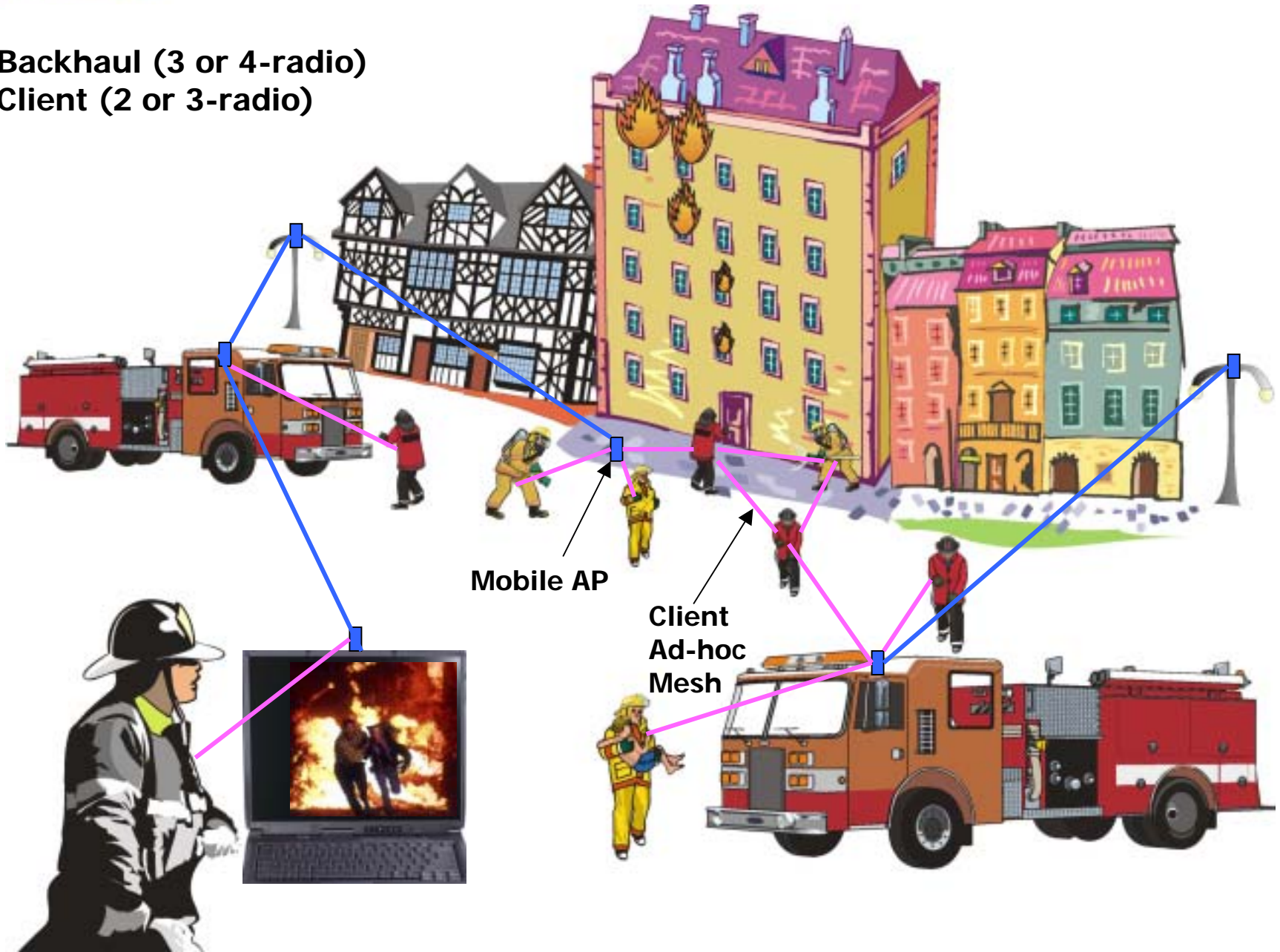


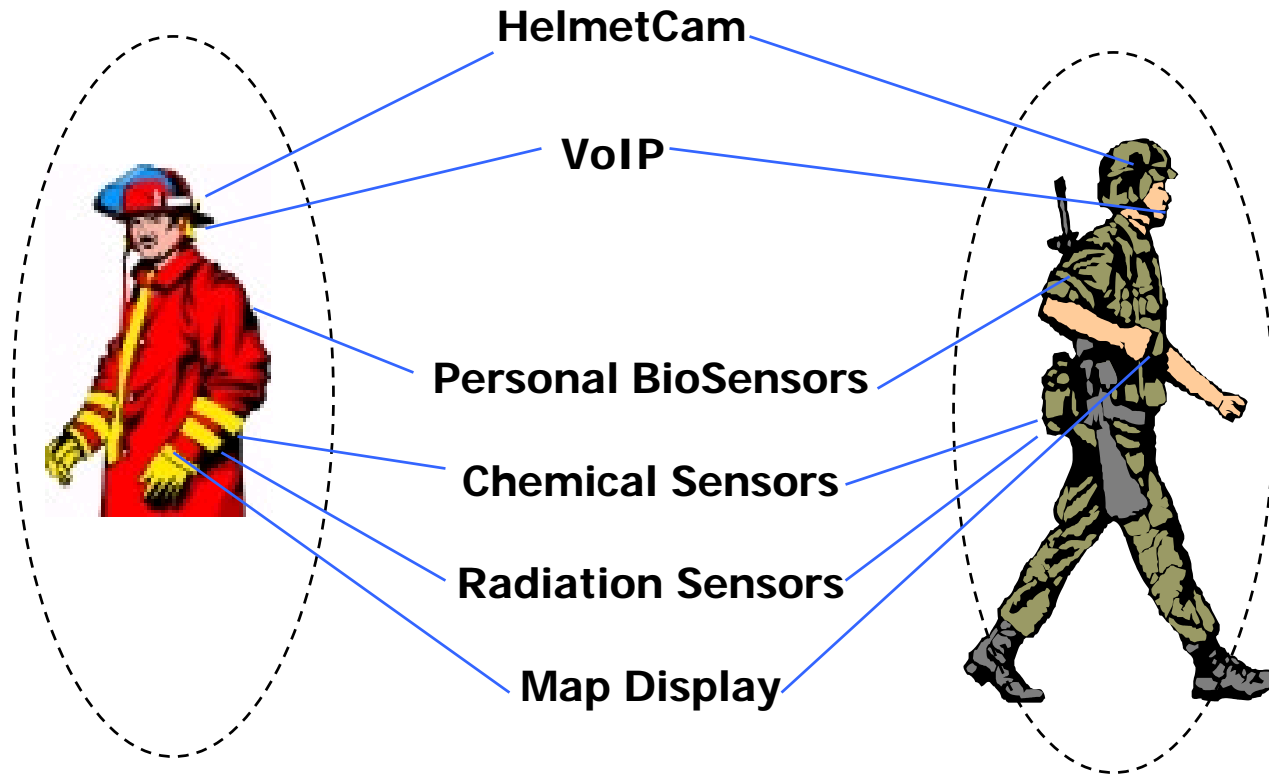


- Backhaul (3 or 4-radio)
- Client (2 or 3-radio)



- Backhaul (3 or 4-radio)
- Client (2 or 3-radio)

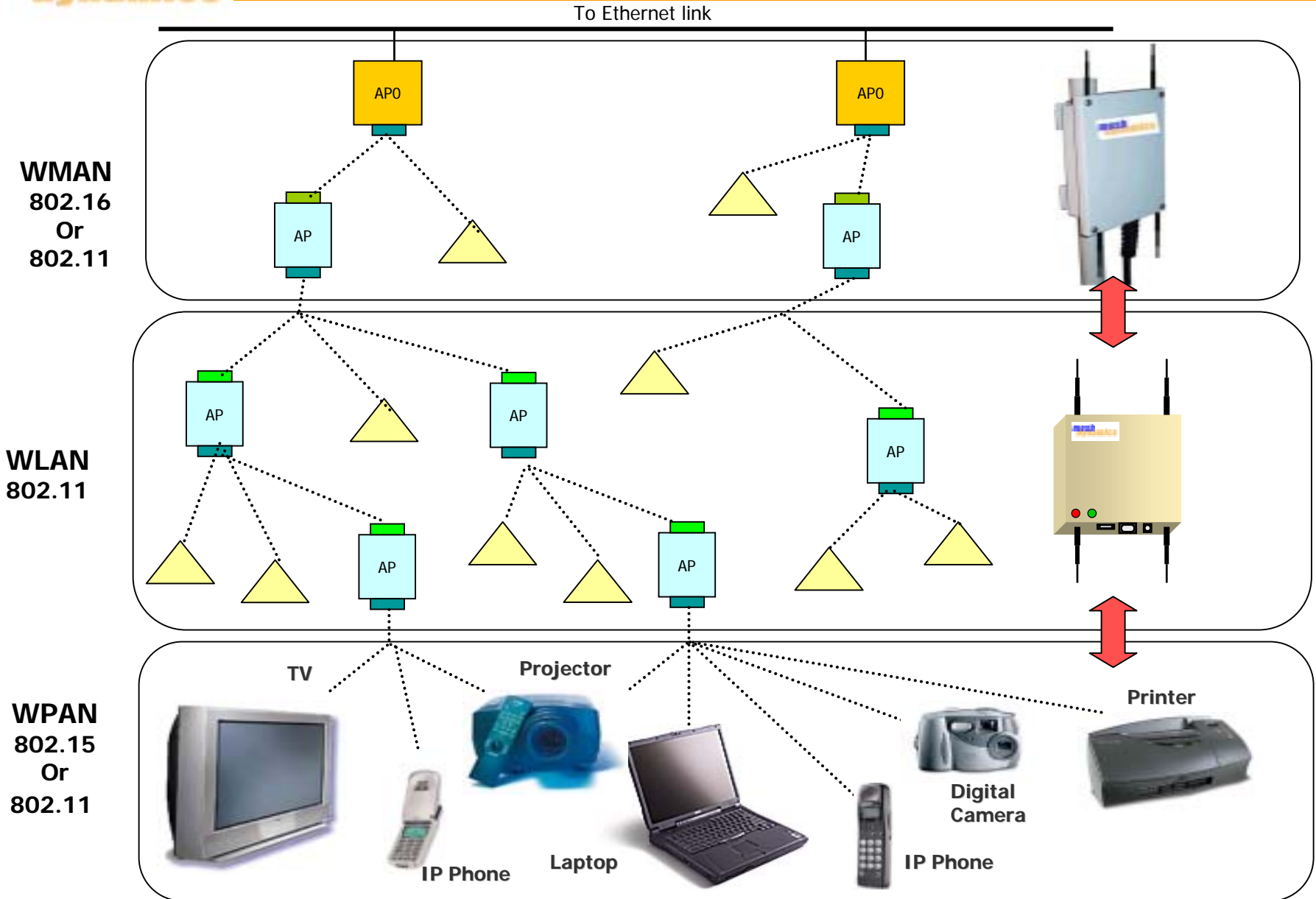


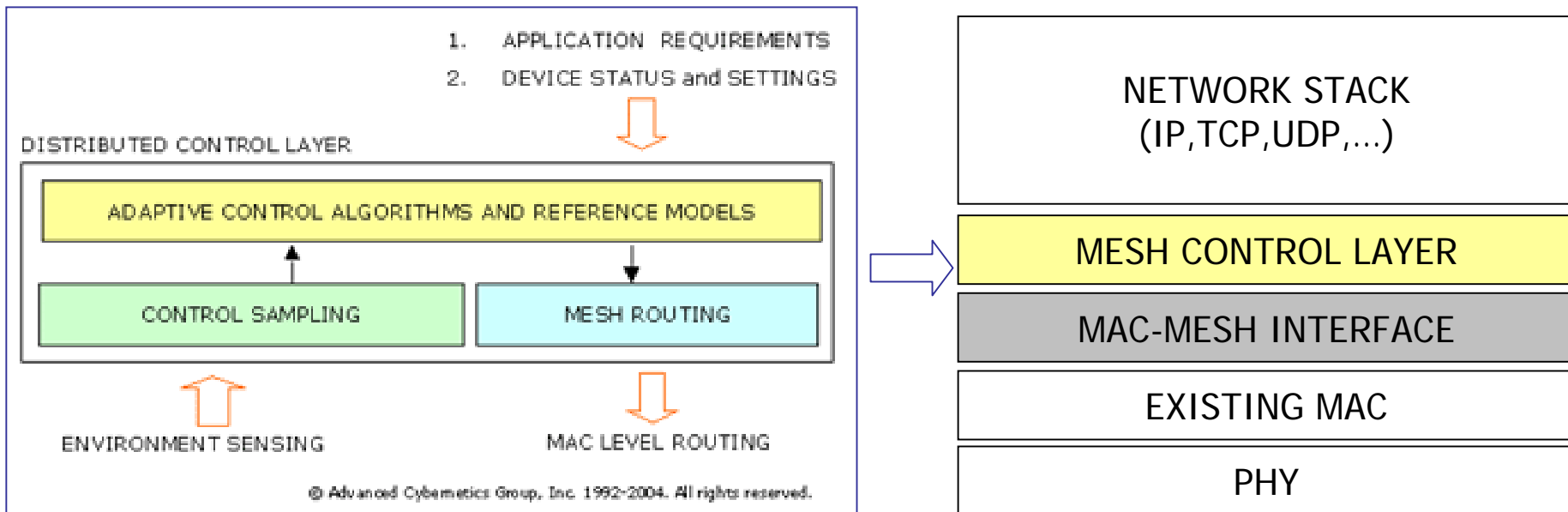




- Home networking
- Wireless Ad-hoc networks

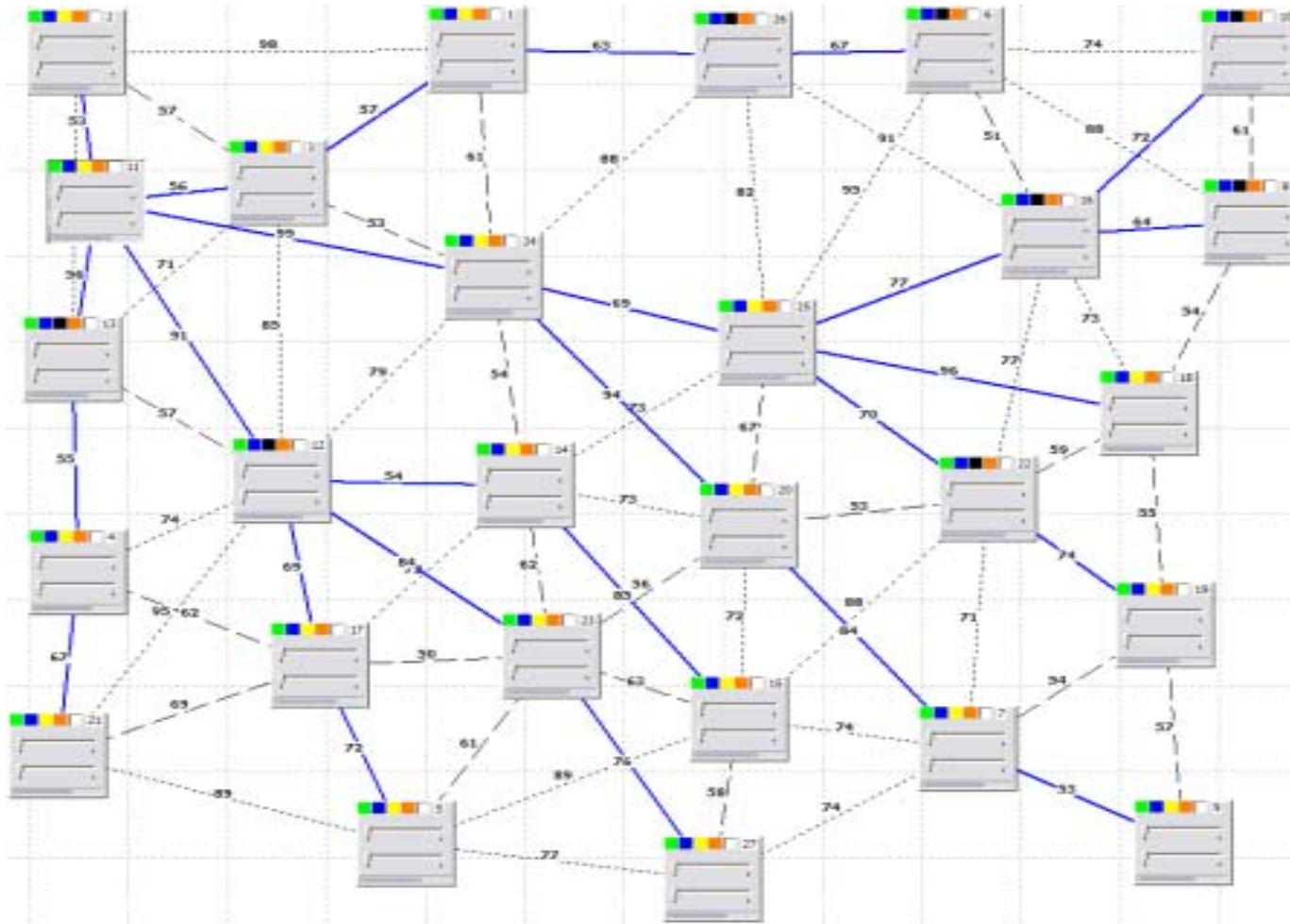
Mesh Control Layer – Platform Agnostic





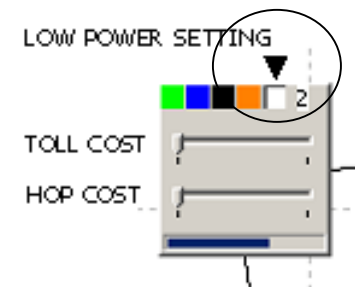
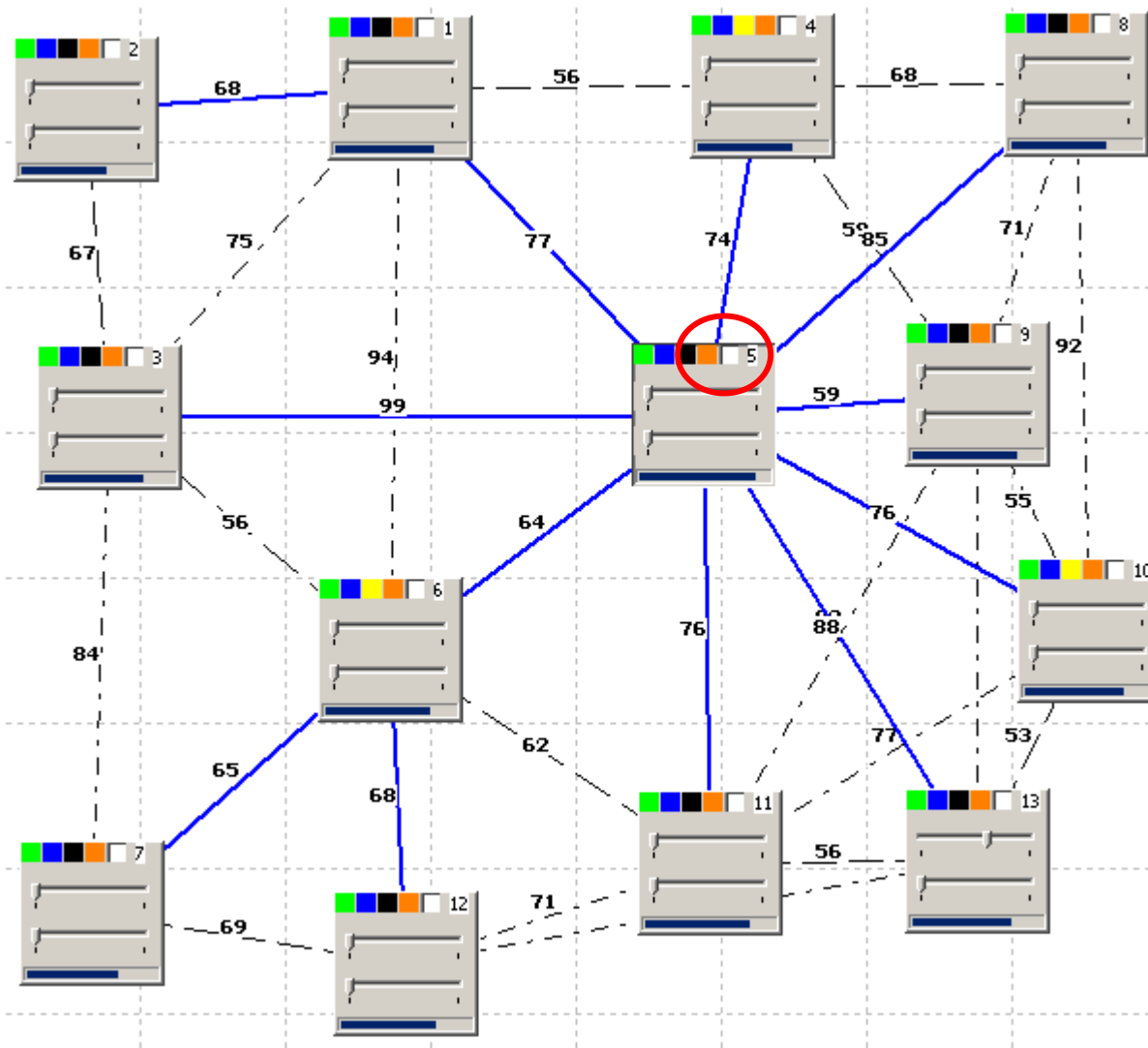
- Software only solution, 60KB Small Footprint
- Mesh functionality implemented to run above MAC

- Auto Discovery
 - Self healing
 - Dynamic load balancing
 - Latency/Throughput control
 - Power management
 - Pro-active routing
 - Support Simultaneously Operating Piconets.
-
- Low memory footprint
 - Hardware agnostic
 - Wireless protocol agnostic

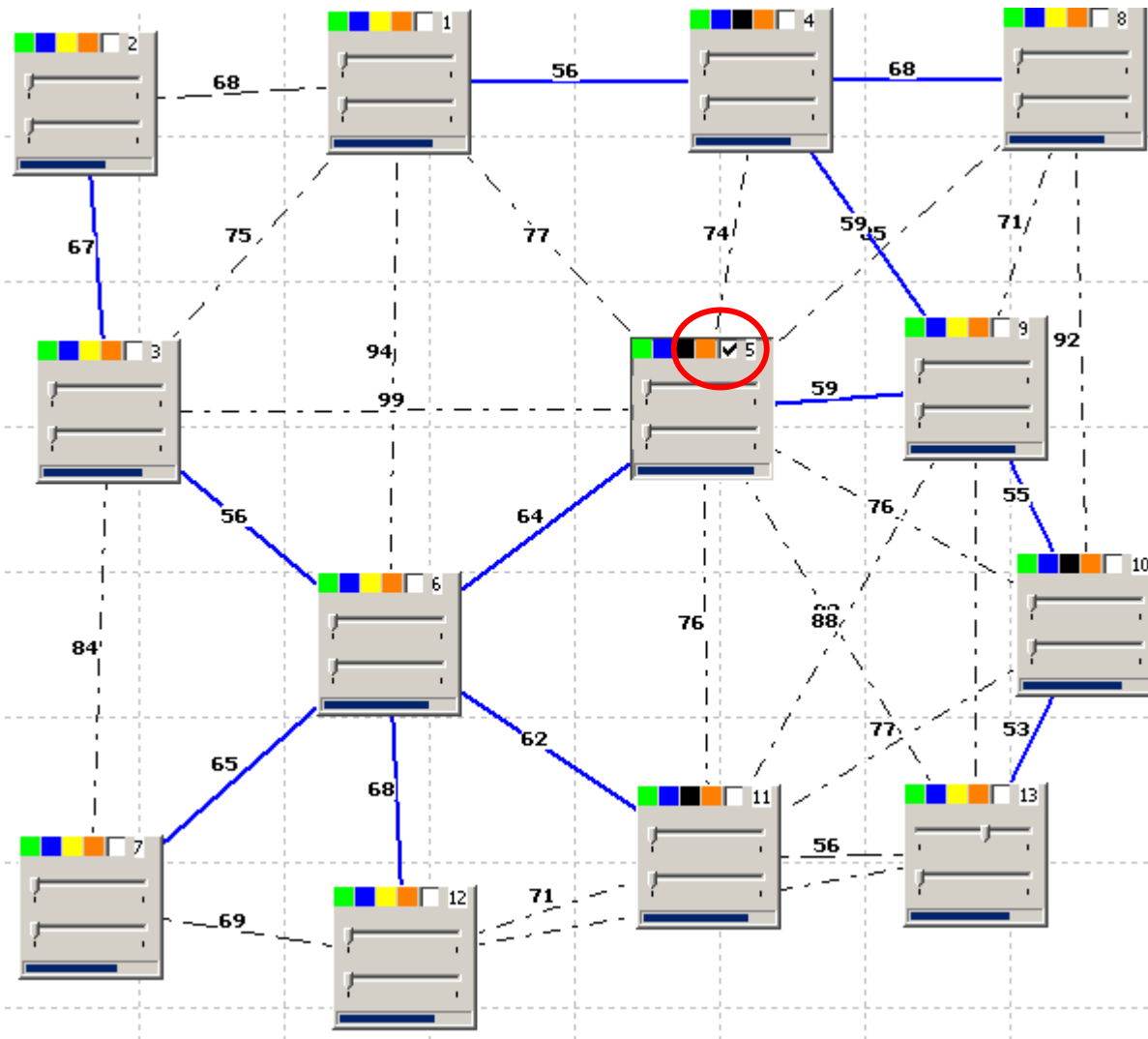


Scaleable, Redundant, Self-configuring, Self-Healing, Application aware

Low Power Setting Alters Route



Low Power Setting Alters Route

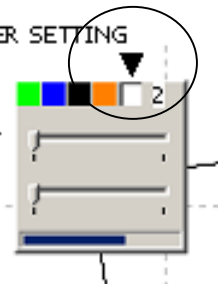


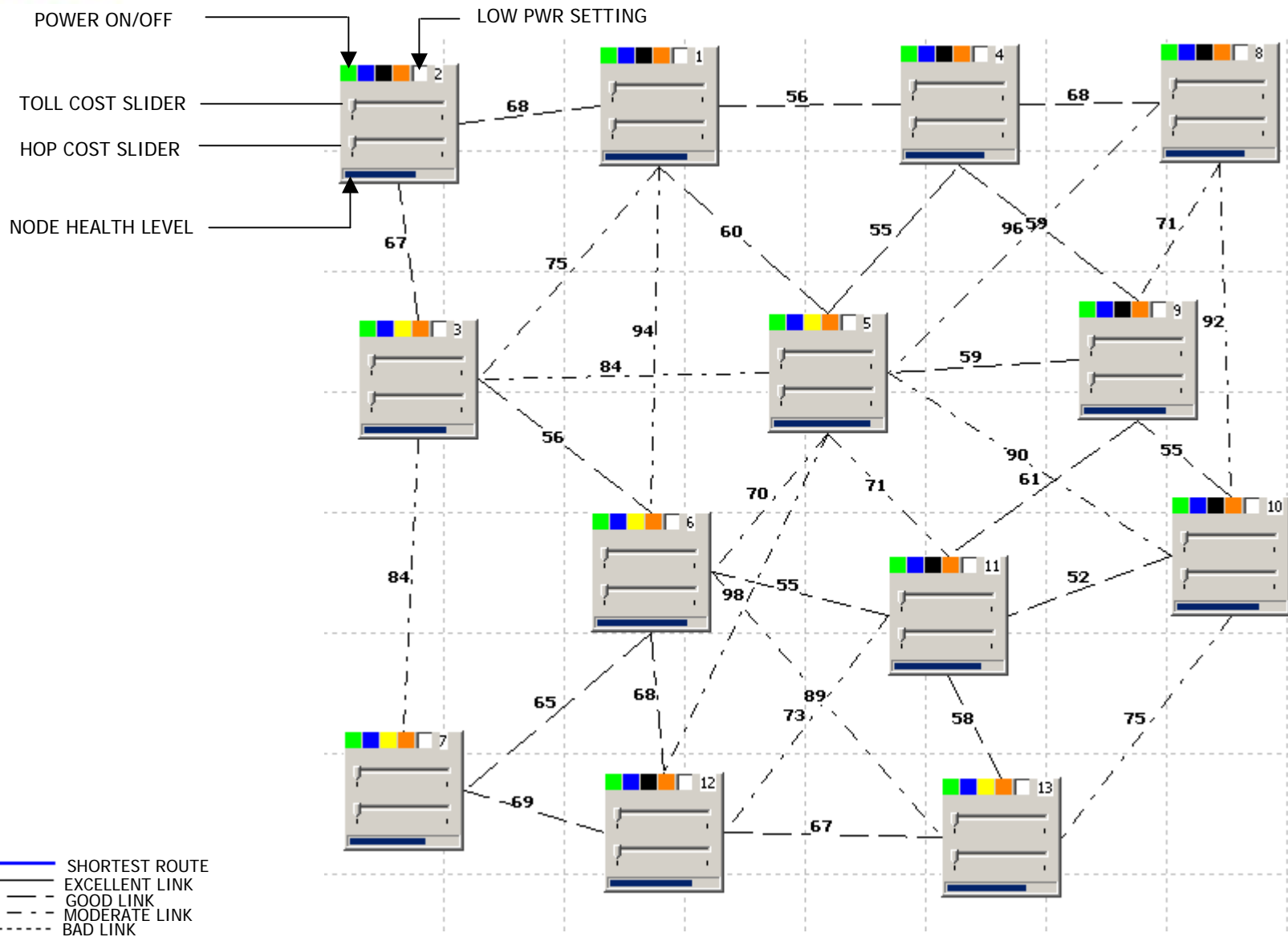
Multi-hop paths to nodes further away

LOW POWER SETTING

TOLL COST

HOP COST





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