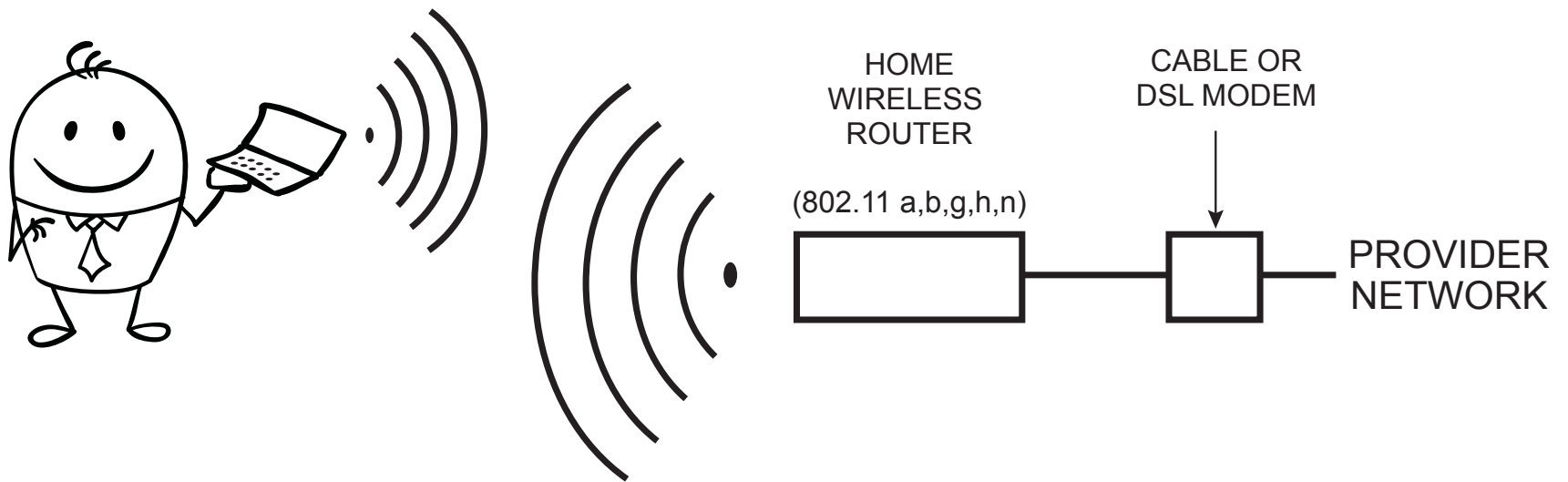


WI-FI 101



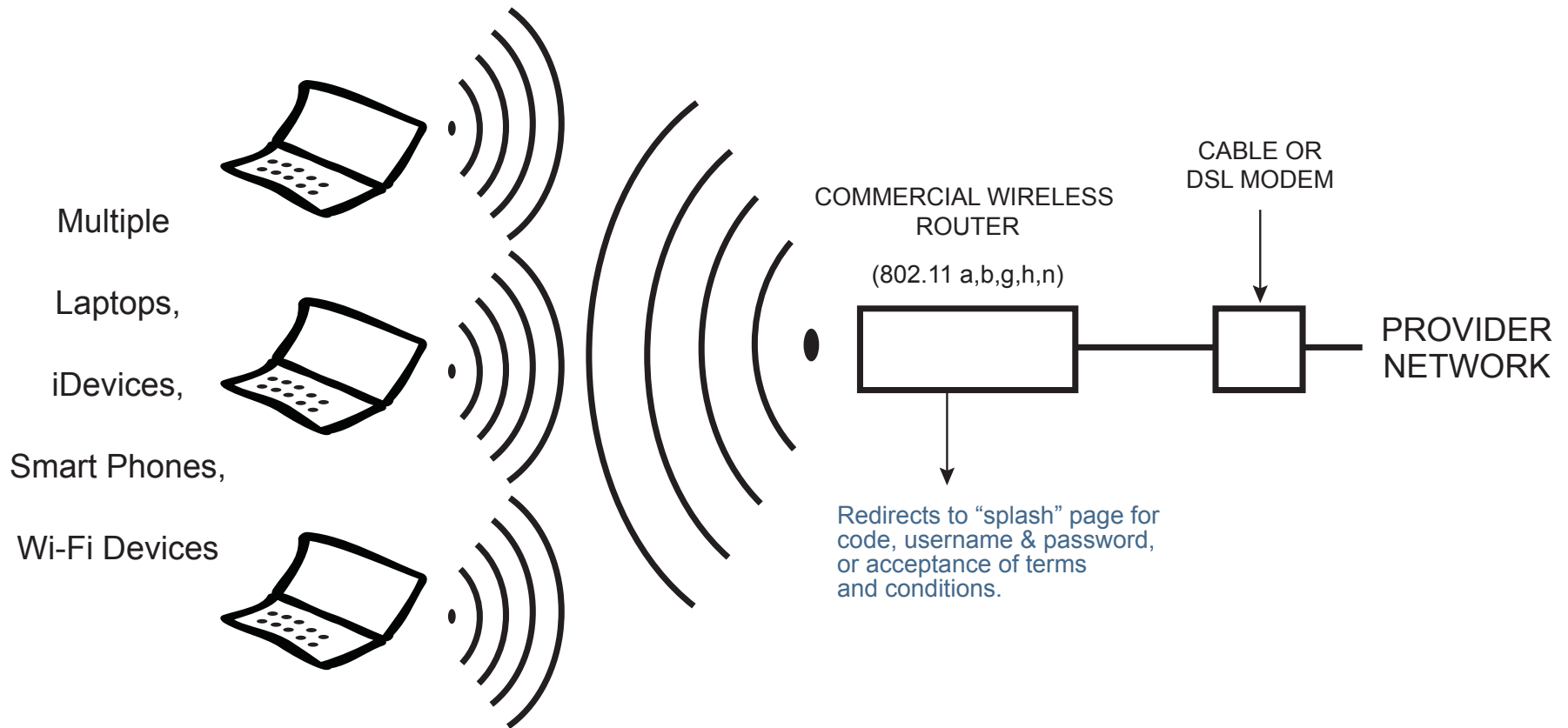
BASIC HOME WI-FI NETWORK



* Speed of Wireless Network and Local Devices

* Speed of Internet Gateway from Provider

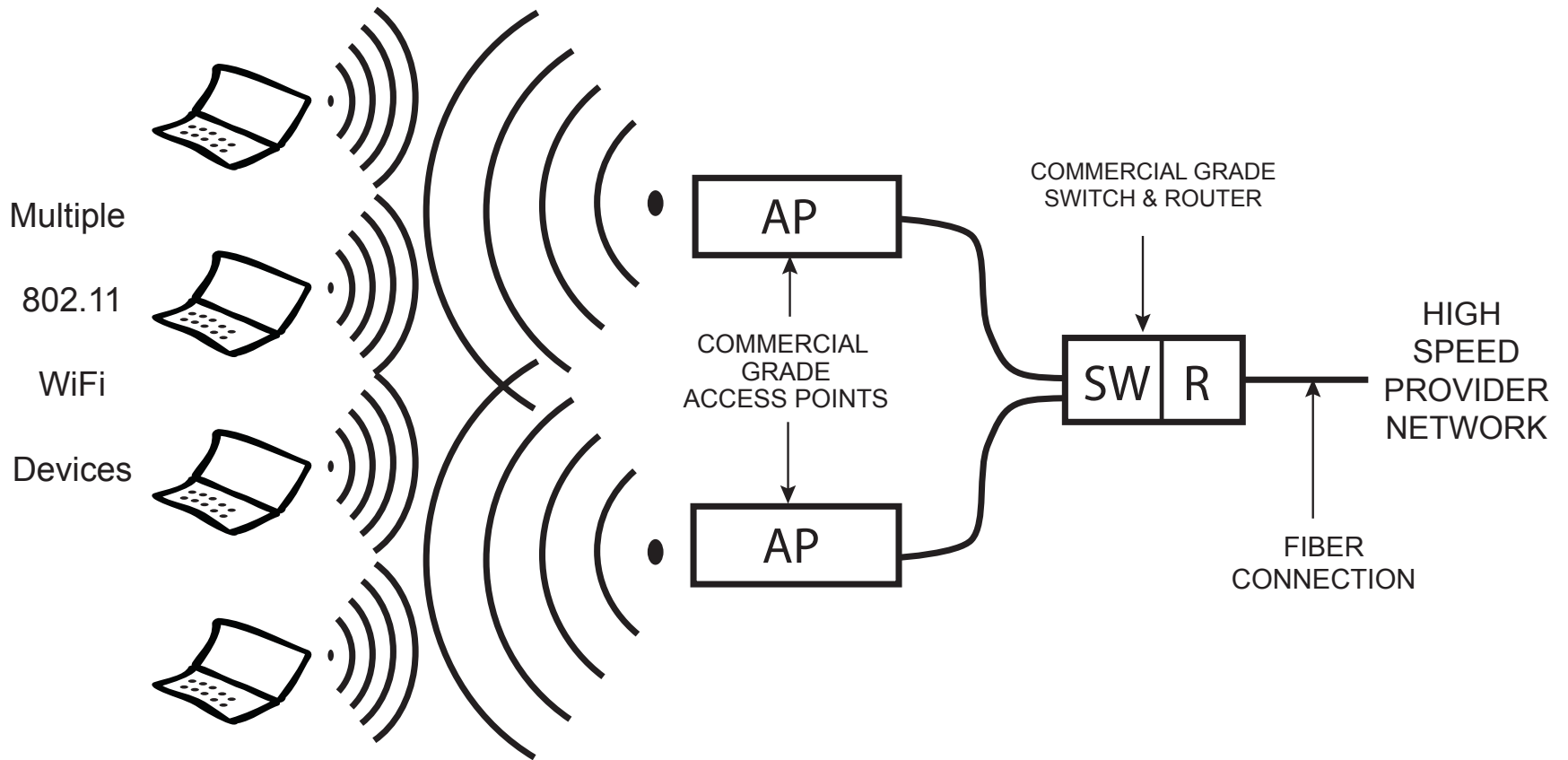
BASIC "HOTSPOT" WI-FI NETWORK



* Speed of Wireless Network depends on slowest wireless device associated i.e., 802.11 (a,b,g,h,n)

* Speed of Single Internet Gateway is shared amongst multiple users w/o Bandwidth Profile

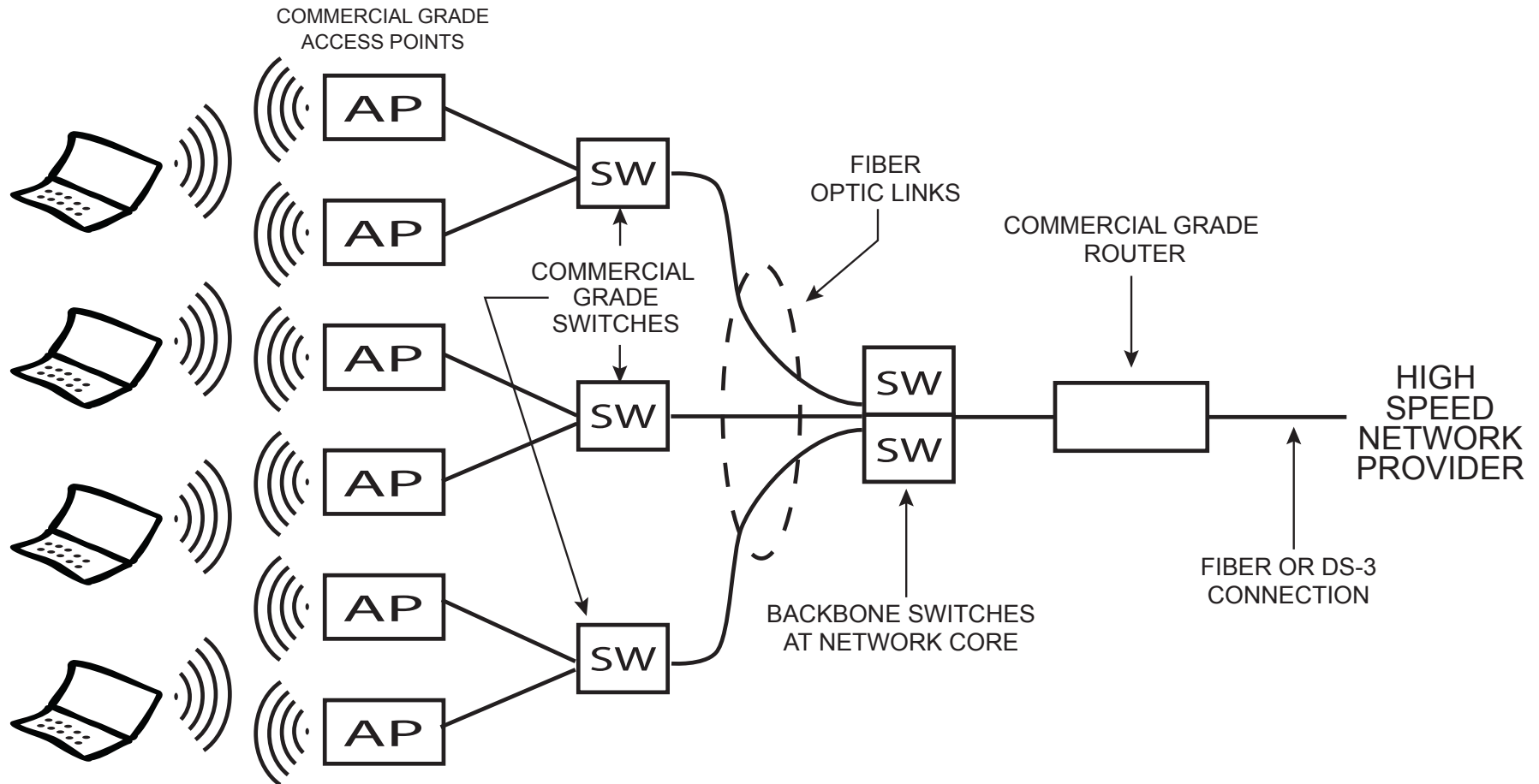
HIGH SPEED WI-FI NETWORK



* Speed of Wireless Network managed by Access Points

* Speed to Internet on Fiber is faster than all Wireless Links & Clients

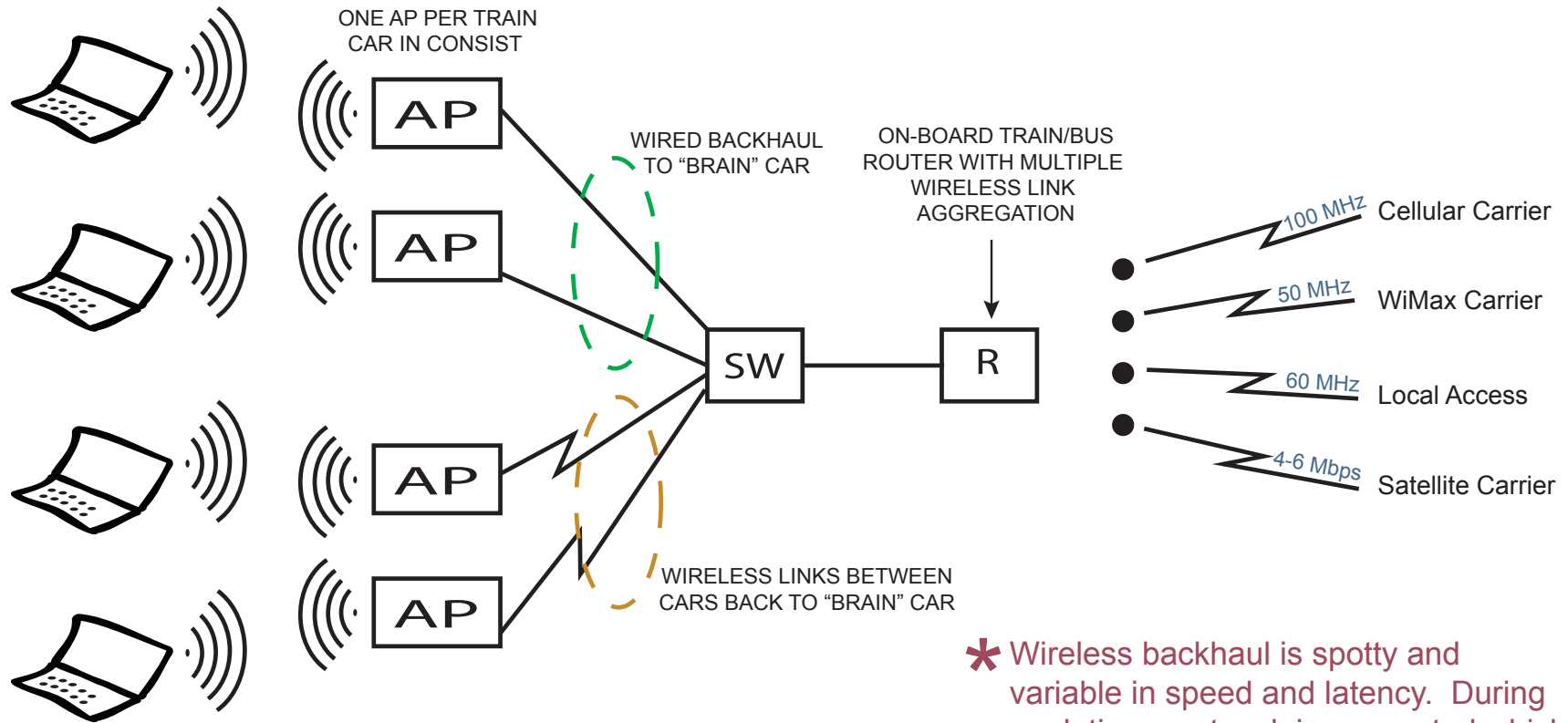
CAMPUS WIDE WI-FI NETWORK



* Multiple Wireless Devices on Multiple Access Points across Multiple Different Locations

* Bandwidth, Security, and Access all controlled through Policies at Router Edge and at Local AP

ON-BOARD TRANSIT WIFI WITH PUBLIC BACKHAUL

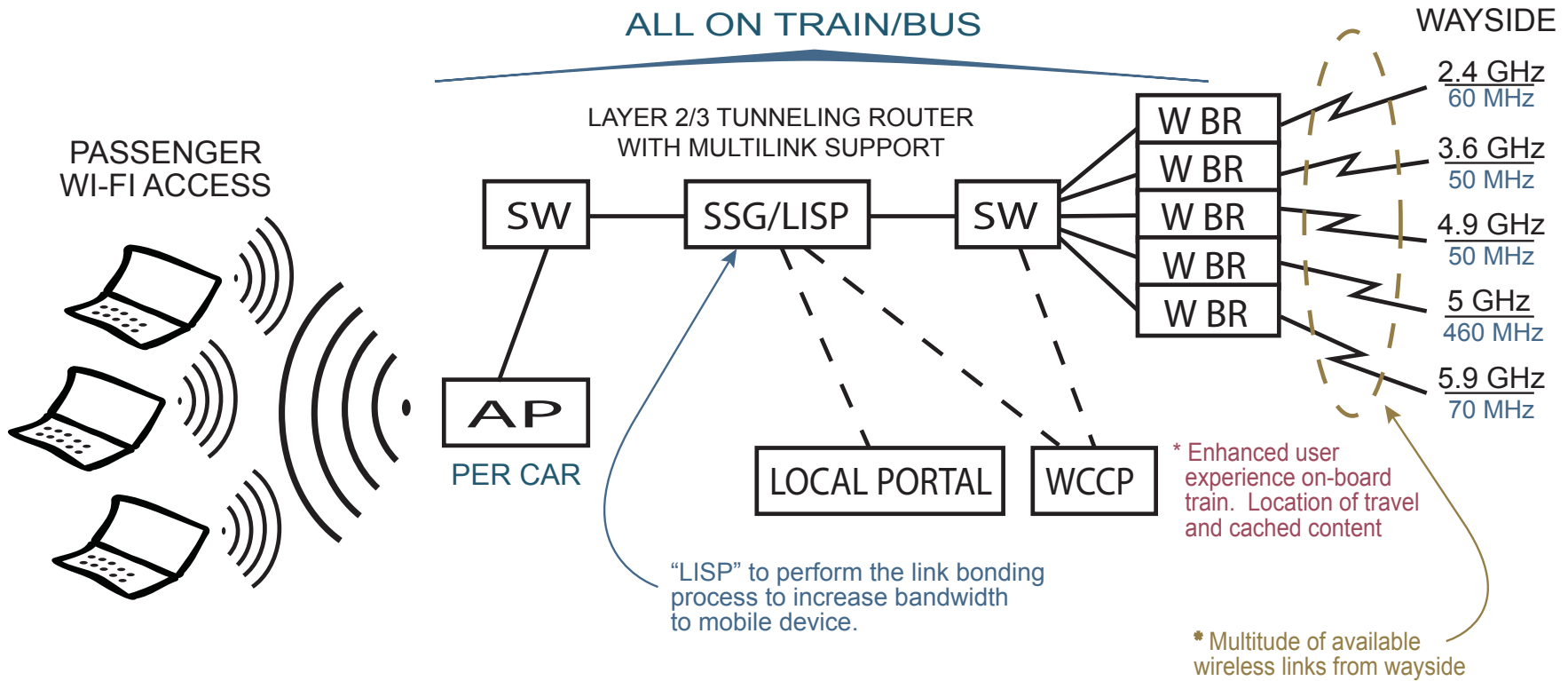


- * * Local network can be highspeed and support infotainment and other applications.
- * * Still limited by weakest device associated per train car.

- * Wireless backhaul is spotty and variable in speed and latency. During peak times network is congested which leads to diminished service to transit vehicle. Best case; maximum throughput achievable is unacceptable for either passenger or operational requirements.

ON-BOARD TRANSIT WI-FI WITH PRIVATE BACKHAUL

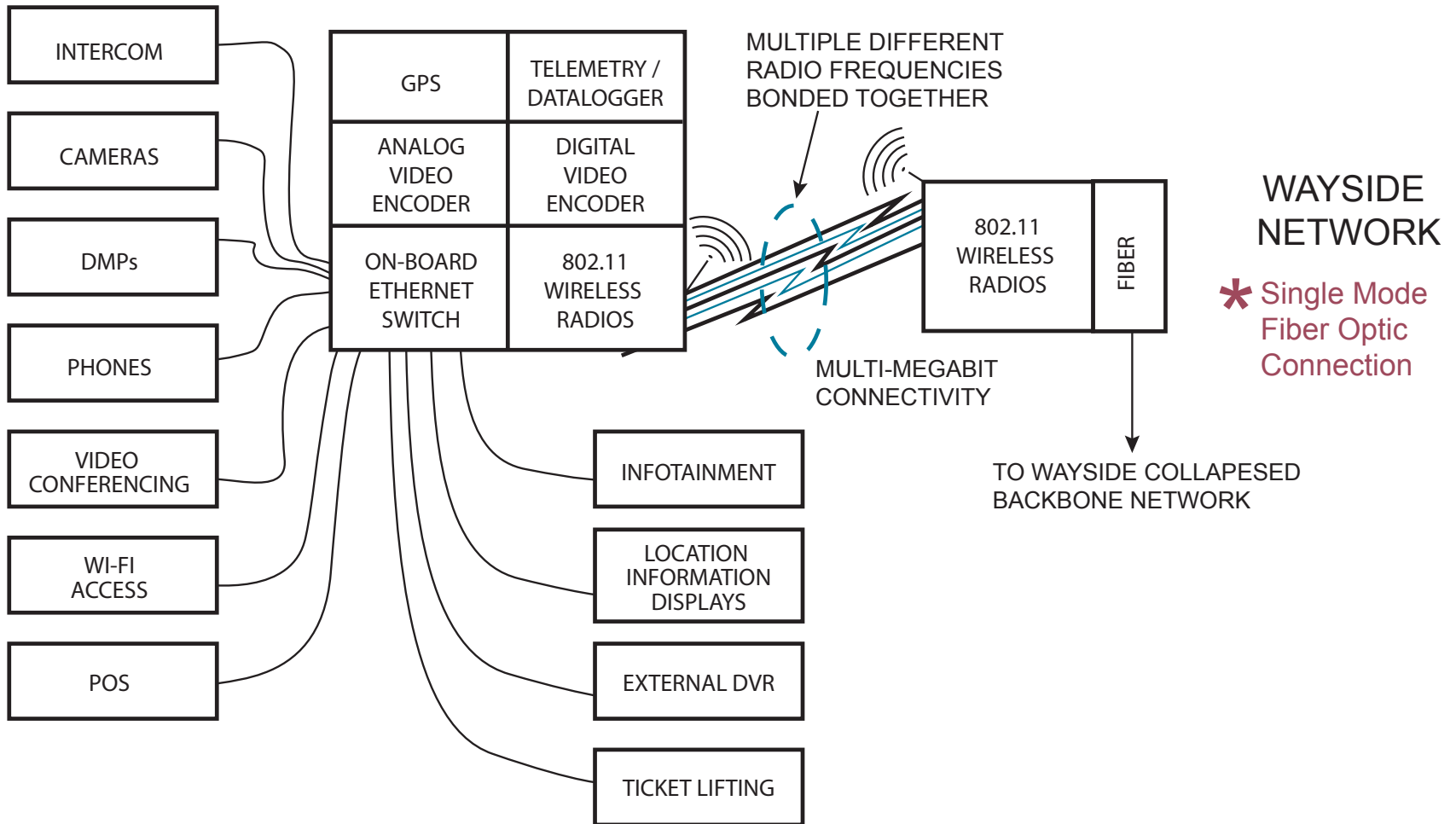
* WiFi Rail Deployments



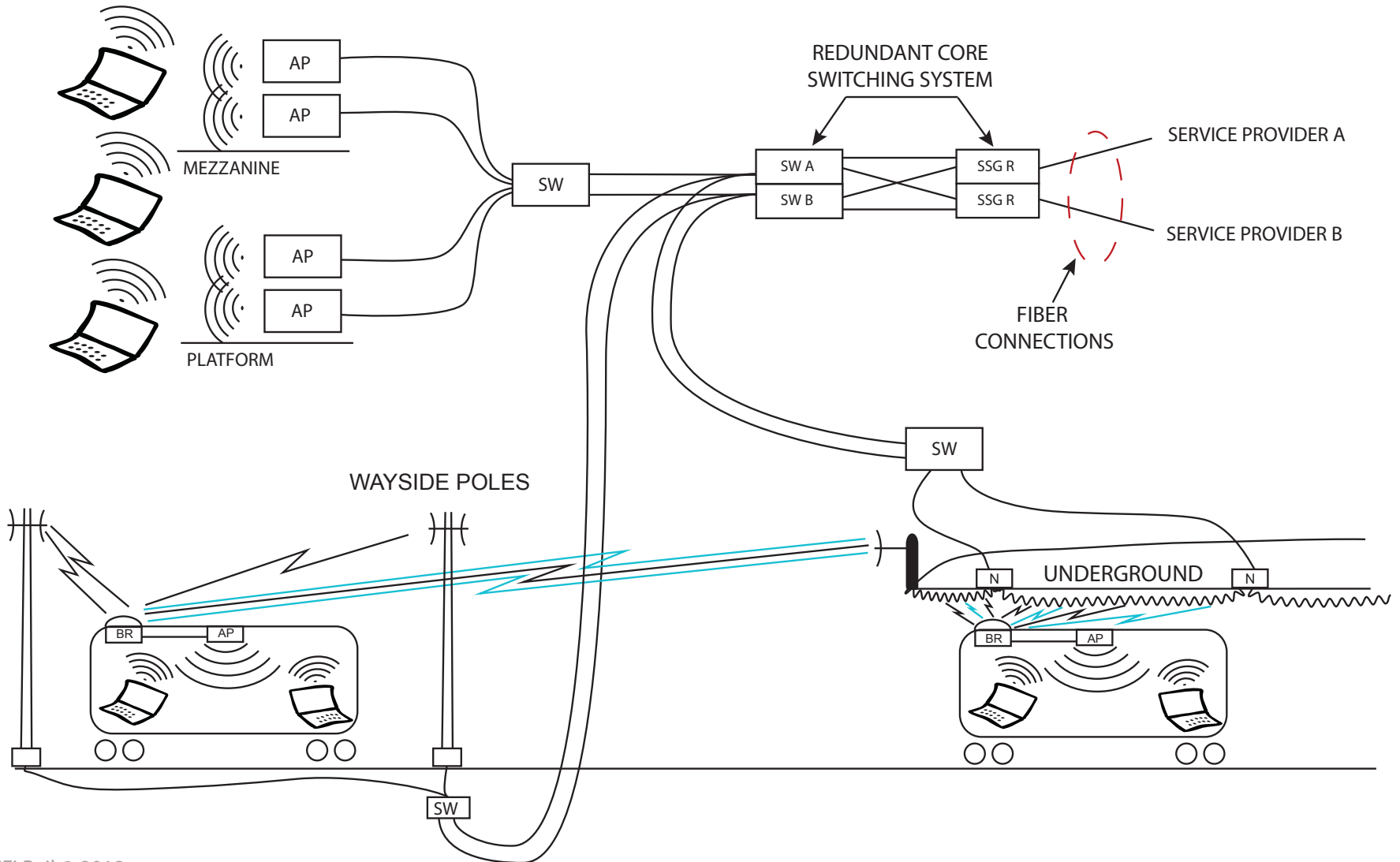
* All devices will maintain IP address whether acquired on train, in station or in the lounge.

* Multiple wayside frequencies can be used to bond a much larger pipe than can be achieved with any single frequency.

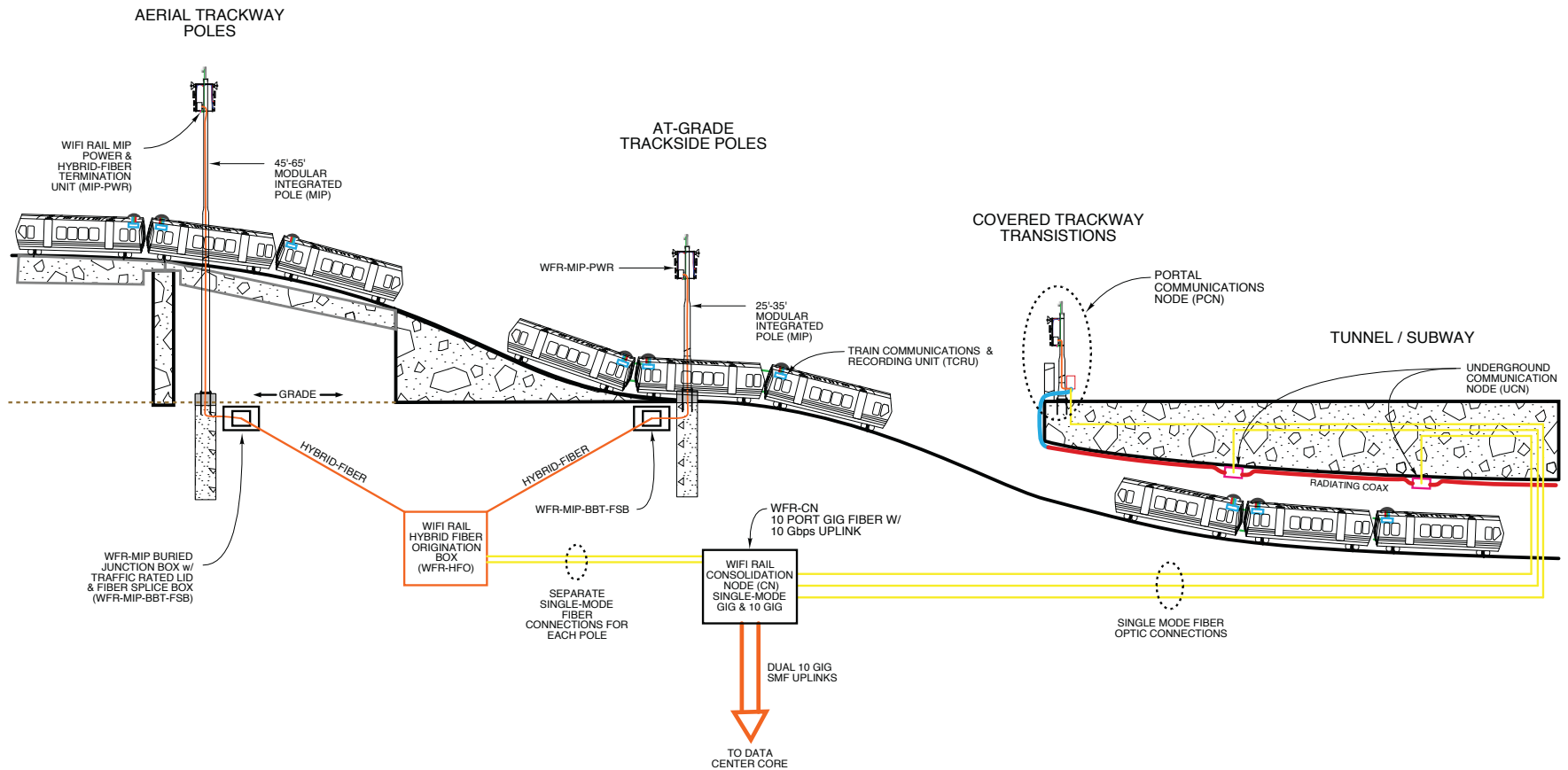
TRANSIT WIFI OPERATION & MAINTENANCE BENEFITS FROM PRIVATE NETWORK



WIFI RAIL NETWORKS IN A TRANSIT ENVIRONMENT



WiFi Rail Patented Network Architecture



Patent #7,768,952 #7,916,080 #7,787,402 : System and method of wirelessly communication with mobile devices.