

## WIRELESS WAN / LAN SOLUTIONS

For wireless data connectivity there are two main options: wired LAN (Local Area Network) or Wireless LAN. This section focuses on wireless options only.



**WLAN** - A wireless LAN allows the user to access data on their laptop or PDA without connecting directly to a cable. The LAN links two or more devices to an access point that is connected by cable, thus allowing multiple users to access the internet from one internet connection. A Wireless LAN typically allows the user to move within approximately 300 feet of the access point. This technology is often used on college campuses or within office buildings.

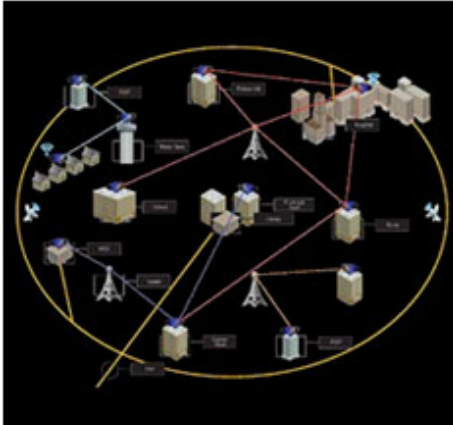
**WWAN** – A wireless WAN, as the name implies, has more extensive coverage, typically on a national level. The network is provided by a wireless service (for a monthly fee) and uses cellular networks for data transmission. The data is carried from the radio tower to a mobile switching center where it is passed to the appropriate network using the wireless service provider's connection to the internet. Because WAN's use cell phone networks there is the option of having both cell phone and internet capability. The WAN allows mobile users, such as business travelers or field technicians to access the internet, e-mail and their corporate applications.

Alternatives to traditional Internet and Point to Point Data circuits are Wireless and Satellite Broadband. They can be used as primary or back-up solutions. Some of the benefits are that wireless broadband solutions do not utilize or rely on the local PSTN for last mile loop delivery; hence they provide a redundant or different path for disaster recovery. Also because they do not rely on the local exchange provider, the service typically installs fast (within 7-13 days) in most areas.

**WIRELESS BROADBAND** - available in 3G/4G (10m download), Spectrum WiFi (up to 1g), and Optical Fiber (up to 1g) Pt to Pt or Mesh Networks between locations within 1.6 km of each other. Optical Fiber is 1/10th the cost of traditional fiber.

**SATELLITE BROADBAND** - up to 8m down and 2m up. Satellite solutions may be the right fit for non-urban scenarios where the cost of traditional T1s are very costly.

Wireless Solutions can also be used as Temporary Solutions for: Events/Conference Sites, Construction Sites, TV and Movie Productions.



**KEY BENEFITS of A MESHED  
OWB (OPTICAL WIRELESS  
BROADBAND) NETWORK**

- High Bandwidth
- Low Cost
- Rapid Deployment
- Reliability and Security
- Patented Architecture
- Green Technology

**KEY APPLICATIONS FOR OWB**

- Wireless Backhaul and Overlay Networks
- Fiber Extension and Last Mile Access
- Healthcare and Campus Solutions
- Municipalities and Local Government
- Security and Surveillance Networks
- Emergency Response Networks
- Homeland Security and Federal Government



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