TECHNOLOGIES

Citywide Wi-Fi Coverage Wireless Security Networks

Wialan Technologies

Wireless. Internet. Access. Local. Area. Network (WIALAN) Wireless technology designed for city & county size network capacity

- Developer
- Manufacturer
- Industrial Grade

Secure and Reliable Connectivity:

- Cities & Counties
- Municipalities
- Businesses
- Public Facilities
- Marinas
- Hotels
- Residential Complexes
- Underserved / Non-serviced



Wireless Technology

Wi-Gate Series Access Points (AP)

Long Range

Intelligent Network Resources

Wi-Fi Coverage, Wireless Video Surveillance, Access Control, Automatic Meter Reading, Wi Fi Off load, any IP base service and much more

Local Distribution:

2.4 GHz (Wi-Fi)

4.9 GHz Public Safety

Mesh Network Support:

4.9 GHz (Public Safety)

5.3 GHz (Backhaul)

5.8 GHz (Backhaul)

WiMax Ready

Wi-Fi Dilemma No More

- Standard Industry APs are known for:
 - Small radius range per device
 - Loss of quality and speed with increased distance
 - No more than 30 to 40 end-users simultaneously



- Wi-Gate 300-8-8 Two Radios Outdoor Access Point:
 - Quarter mile Wi-Fi device connectivity in each Radio
 - Half Mile connectivity with Customer Premise Equipment
 - No Loss of Quality or Speed
 - Up to 200 simultaneous end-users

Incredible Reach - Speed 54 Mbps 802.11g

500-800 Mts

250-400 Mts

B

В

Average competitor AP radius range

45 -100 Mts. Radius

Wialan Wi-Fi device direct connectivity

- 250 Mts. (.15 mile) / 54 Mbps
- 400 Mts. (.25 mile) / 11 Mbps B

With Customer Premise Equipment (CPE)

- 500 Mts. (.3 mile) /54 Mbps
- 800 Mts. (.5 mile) / 11 Mbps

Incredible Reach - Speed 300 Mbps 802.11n

B

500-800 mts

250-400 mts

B

B

Average competitor AP radius range

35 -75 Mts. Radius

Wialan Wi-Fi device direct connectivity

- 250 Mts. (.15 mile) / 300 Mbps
- 400 Mts. (.25 mile) / 150 Mbps

With Customer Premise Equipment (CPE)

- 500 Mts. (.3 mile) /300 Mbps
- 800 Mts. (.5 mile) / 100 Mbps

Current City Wide Wi-Fi Dilemma

Too many standard AP needed to cover one sq mile

Ex: Miami Beach Florida

In 2006, the commission approved a \$5 million contract with IBM to create the network. Under the deal, 95 percent of the city should have had free Wi-Fi by 2007.

That didn't happen. The problem: Ironically, creating a wireless network requires a hell of a lot of wires. To get a strong signal across one square mile, you need about 60 wireless signal nodes, says Fleishman.

http://www.miaminewtimes.com/2010-01-21/news/miamibeach-spending-5-million-for-spotty-wi-fi/

Current City Wide Wi-Fi Dilemma

Saturate easily Most act as a bridge only Low multitasking capabilities Most have Slow processing speeds (ARM Processor) Many fail to have NEMA Standard Enclosures AP dependent on centralized command center Users vulnerable to cyber threats (hackers, viruses) No VPN from AP to Device included Poor standalone network traffic & analysis capabilities

The Difference: Built In Resources and Features

Each Wi-Gate is its own Network handling distributed processing

802.11g 1R

802.11g 2R

802.11n 1R

500 MHz AMD GEODE CPU 256 MB Ram, 256 Solid state Storage VPN Server included (40, 56, 128 bit Encryption) **Encrypted Mesh** Network Access Translation (NAT) **Bandwidth Shaper** Quality of Service (three levels) **Traffic Analyzer Port Mapping Support Client Signal Analyzer** Wi-Max and other technology ready Patented Hermetically Sealed Enclosure More features not listed here

The Distributed Network

Wi-Gate creates a Distributed Network Structure (DNS)

Reliable: If one AP fails the network can reroute itself using a variation of the spanning tree protocol concept, if pay portal goes under, system will still provide service to customer

Secure: VPN server (250 simultaneous VPN end users), encrypted mesh and firewall protection assures that users and network are safe from cyber threats

Intelligent: QoS (3 levels), bandwidth shaper, client signal analyzer, port mapping, and traffic analyzer help to manage network usage Efficient and Fast: 500 MHz AMD Multitask processor, 256 MB of ram and hardware supported encryption enable quick packets transfer in the most demanding conditions

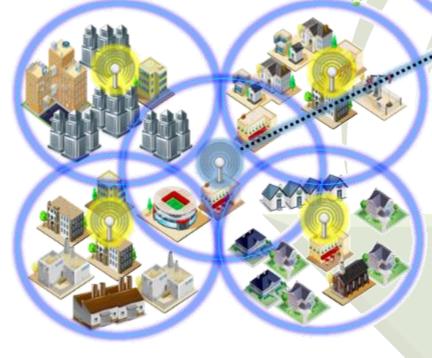
Profitable: Pay portal ready

Manageable: Remote support and advance management functionality.

Cover More With Less



- **City Spot Wi-Fi Repeaters**
- Wi-Fi Radius Range
- Point to Point Directional Feed



Underserved areas

Five AP covers one square mile in open areas (more required in city setting)

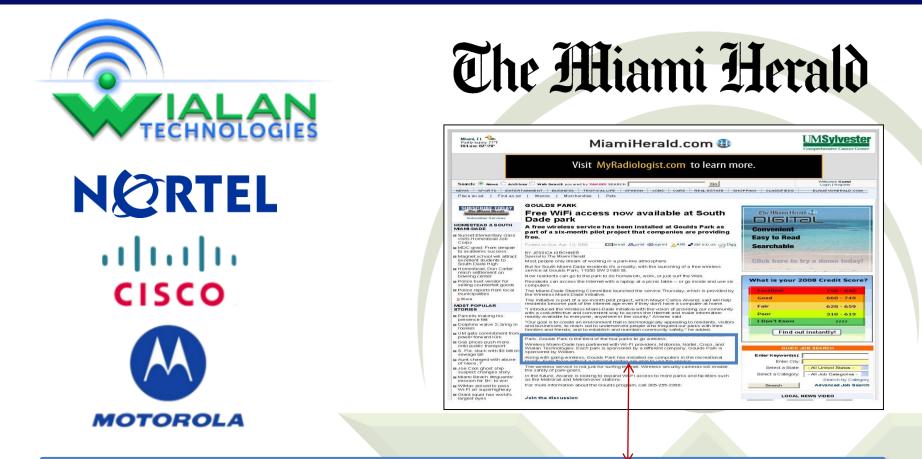
Signal redundancy for reliable Wi-Fi coverage

1/4 mile reach per device

Accomplish More with Less

- Less access points and repeaters due to superior radius range
- Less time installing and launching network (plug and play)
- Less money on fewer devices therefore less installs
 - Full Wi-Fi coverage everywhere
 - Internet to underserved and non-served areas
 - Public safety wireless video surveillance
 - Wi Fi Off Load
 - Entire System Available with Solar power
 - Solar powered Cameras, switch, transmitter, and more

Wialan Technologies is amongst the Industry's Top Providers



"Wireless Miami-Dade has partnered with WI-FI providers, Motorola, Nortel, Cisco, and **Wialan Technologies**. Each park is sponsored by a different company. Goulds Park is sponsored by Wialan."

Mayor Carlos Alvarez Partners with Wialan

The Miami Herald

"Our partnership with Wialan Technologies will enable County residents to surf the Internet, work and learn in a pleasant outdoor setting. It will help close the digital divide and keep our parks safe through the use of wireless security cameras," Mayor Alvarez said.

- Published by the office of Mayor Alvarez



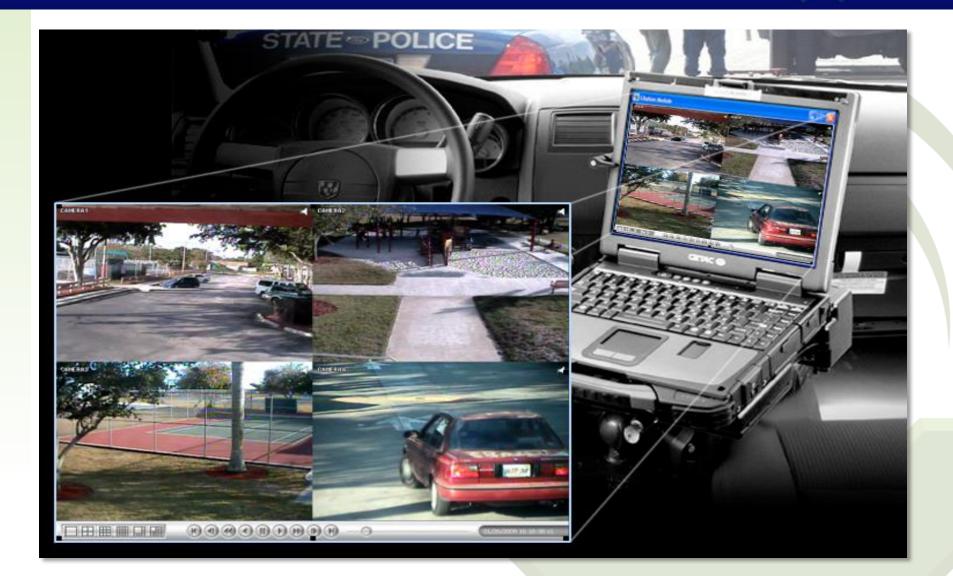


Parque Goulds de Miami

Video Surveillance Directly by Patrol Cars, Recording of event Directly on laptop hard drive for evidence.



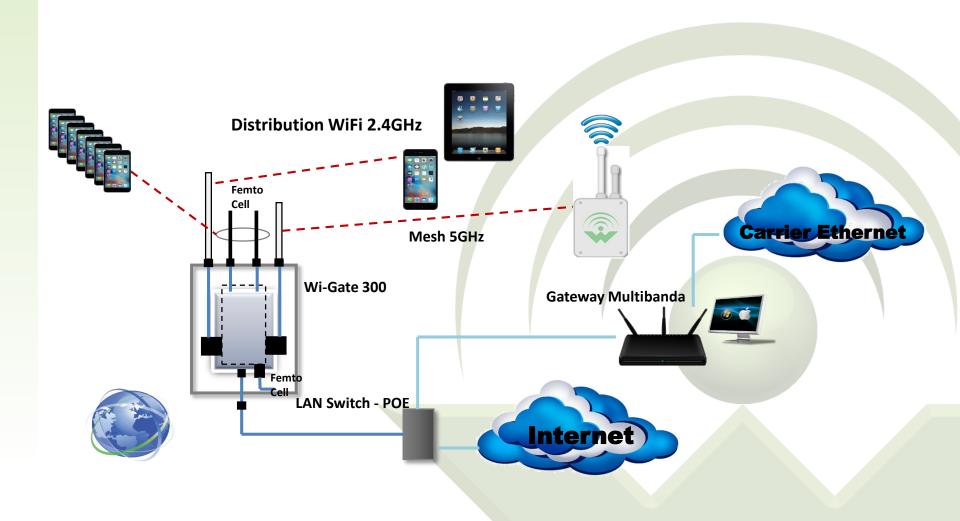
View of Surveillance with 4 Wireless Cameras.



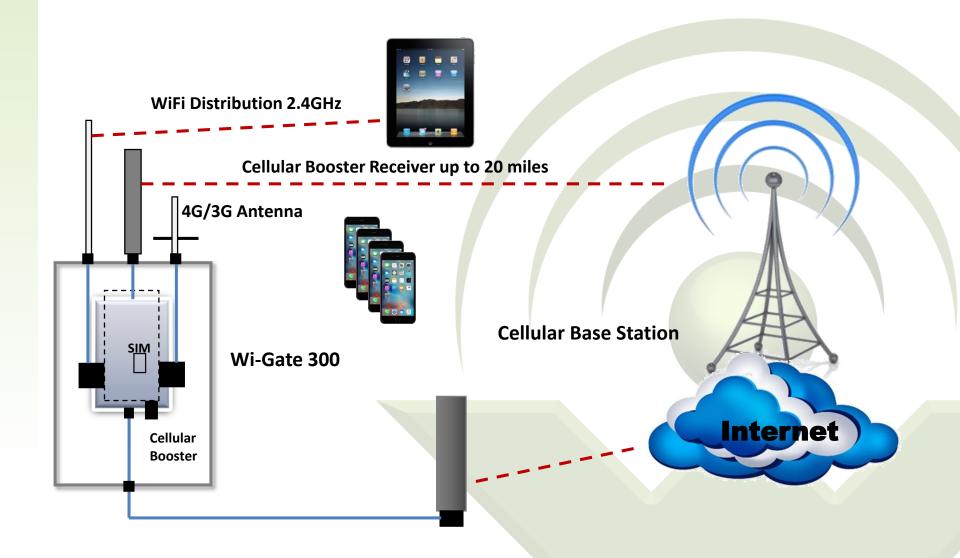
Clarity and Color, Wireless Full HD 1080P (1920 X 1080)



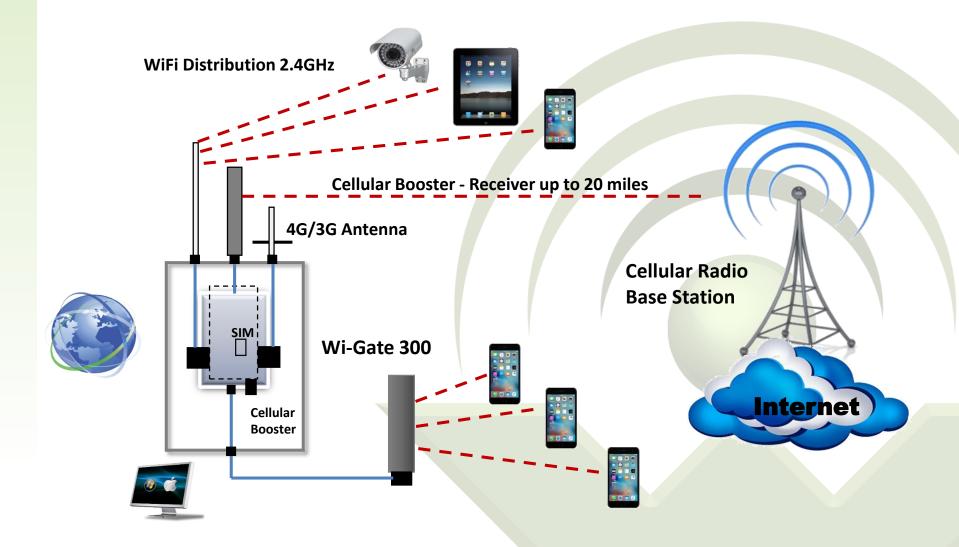
Cellular Solution



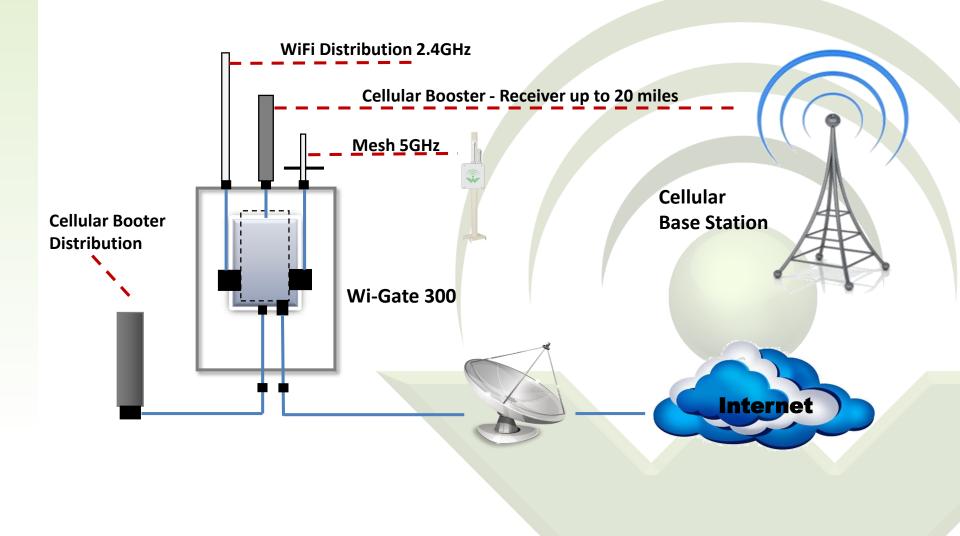
Cellular Distribution & WiFi – 4G SIM and Booster



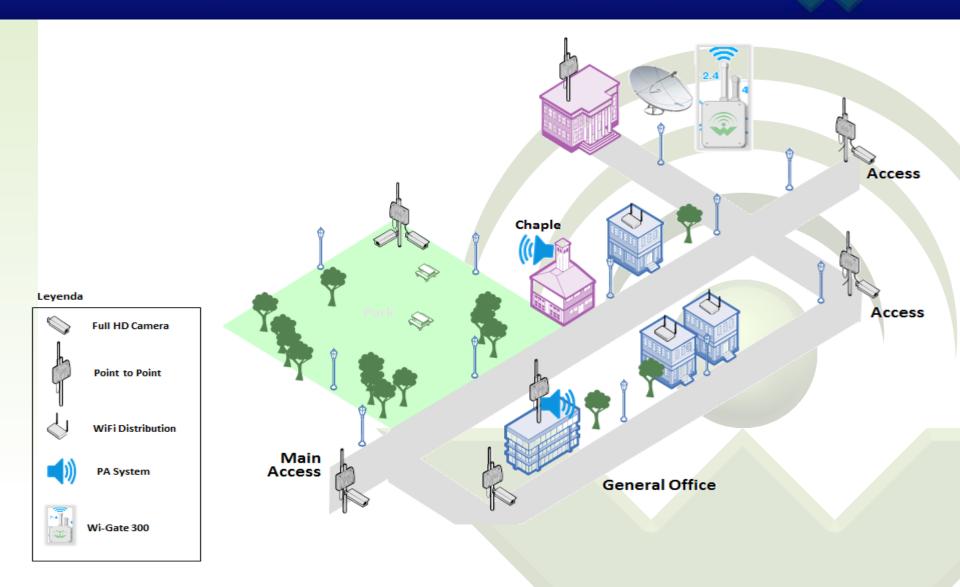
Internet Distribution & WiFi via 4G SIM



Cellular Distribution, Internet & WiFi w/ Satellite Link



School Distribution in Dominican Republic



Installed Wialan Systems

Locations in U.S.

- Miami Dade Count, FL
- Coral Gables, FL
- Tampa, FL
- Cutler Bay, FL
- West Palm Beach, FL
- Ashland, OR
- Suffolk, MI

Internationally:

- Mexico Dominican Republic
- Bolivia Spain
- Ecuador Venezuela
- Colombia Uganda
- Chile Congo
- Guatemala Nicaragua
- Honduras



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