



# MANAGED WI-FI FOR BUSINESS

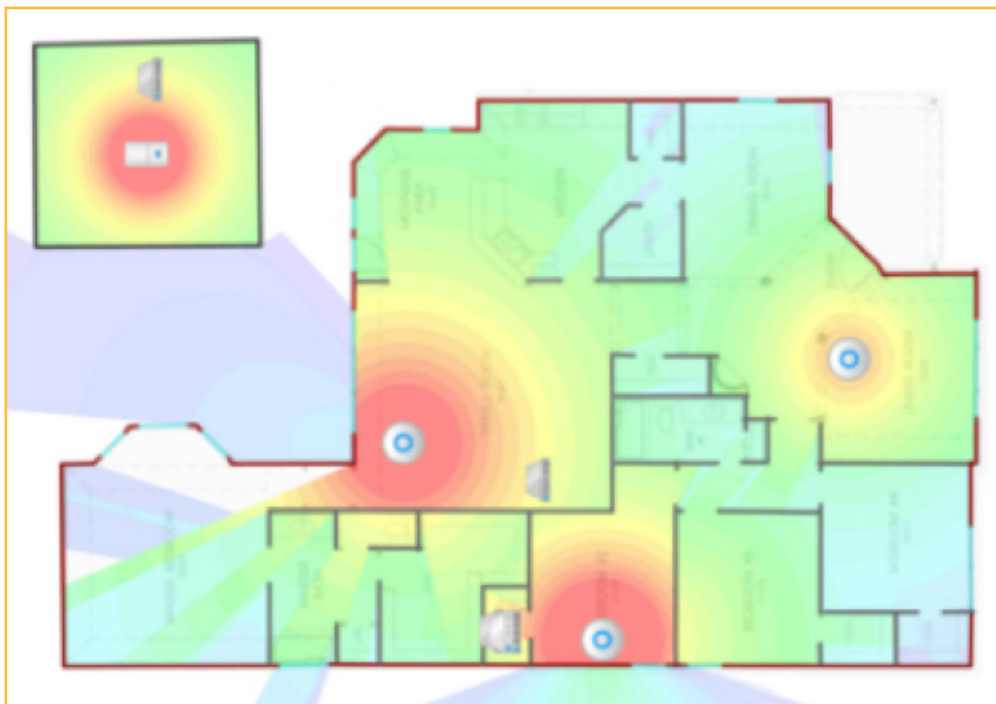
Empower your business with the freedom to roam with WiLine's enterprise-grade access points.

**Maximize performance and minimize costs with a managed WiLine Wi-Fi solution.**

WiLine Managed Wi-Fi is an affordable, fully managed solution that includes administration, monitoring, and reporting so your IT burden is lifted. Choose wireless mesh or ethernet cable deployment options depending on the needs of your business. And, count on a secure, worry-free network with password updates for your private and guest Wi-Fi.

## WI-FI NETWORK DESIGN

A network design is the first step in the process. The design is dependent upon the size and layout of your office plus the number of employees or anticipated users on the network. A WiLine technician will work closely with you to understand all requirements to create the design. The network design typically includes coverage maps that define the number of Wi-Fi access points required, their placement and whether they are backhauled using ethernet cabling or Wi-Fi mesh.



Sample Wi-Fi Coverage Map

## WI-FI HARDWARE

**Access Points** - WiLine employs Wi-Fi access points from Ubiquiti, a leader in high-performance Wi-Fi technology. There are two different units that are typically deployed and they can be used in either a wireless mesh or an ethernet cable deployment mode:

- The Unifi AC Mesh (UAP-AC-M) is a high-performance, indoor, 2x2 MIMO, 802.11ac dual-band access point, capable of speeds of up to 867 Mbps when using a wired uplink.<sup>1</sup>
- Unifi AC Mesh Pro (UAP-AC-M-PRO) a high-performance, outdoor, 3x3 MIMO, 802.11ac with enhanced data transfer rates of up to 1300 Mbps on the 5 GHz frequency and up to 450 Mbps in the 2.4 GHz radio band.



Indoor & Outdoor Point Hardware

**Cloud Managed Router** - WiLine employs the Ubiquiti Unified Security Gateway family of products (USG and USG-PRO), which are extremely flexible and feature-rich routers. The amount of bandwidth and specific features determine which device is most appropriate.

### The USG managed router features include:

- 3 Gigabit Ethernet ports, CLI management for advanced users
- 1 million packets per second for 64-byte packets
- 3 Gbps total line rate for packets 512 bytes or larger<sup>2</sup>
- Integrated and managed with UniFi Controller v4.x
- Secure off-site management and monitoring, silent, fanless operation



USG Cloud Managed Router

### The USG-PRO managed router features include:

- 4 Gigabit Ethernet ports, CLI management for advanced users
- 2.4 million packets per second for 64-byte packets
- 4 Gbps total line rate for packets 512 bytes or larger<sup>3</sup>
- Integrated and managed with UniFi Controller v4.x
- Secure off-site management and monitoring, silent, fanless operation



USG-PRO Cloud Managed Router

<sup>1</sup> When using a wireless uplink (wireless mesh), Unifi AC Mesh access point and Unifi AC Mesh PRO throughput drops by approximately 60%. Although Unifi AC Mesh APs using wireless uplinks can connect to existing Unifi AC Mesh APs that employ wireless uplinks, this results in a 60% loss in throughput per 'tier'. WiLine recommends employing only one 'tier' of wireless uplink.

<sup>2</sup> The USG can handle routing Gigabit connections with hardware offloading enabled. Hardware offloading supports IPv4 forwarding, NAT, GRE, PPPOE and limited IPSec offloading. With offloading turned off, the performance drops to approximately 300 Mbps and with packet inspection/intrusion detection enabled the performance drops to approximately 85 Mbps.

<sup>3</sup> The USG-PRO can handle routing multi-gigabit connections with hardware offloading enabled. Hardware offloading supports IPv4 forwarding, NAT, GRE, PPPOE and limited IPSec offloading. With offloading turned off, the performance drops to approximately 1 Gbps and with packet inspection/intrusion detection enabled the performance drops to approximately 250 Mbps.

## WI-FI MANAGEMENT

WiLine operates the Ubiquiti Unifi Controller in a redundant cloud environment. The controller handles the configuration and automated provisioning of the on-site equipment in addition to providing statistical and debugging information.

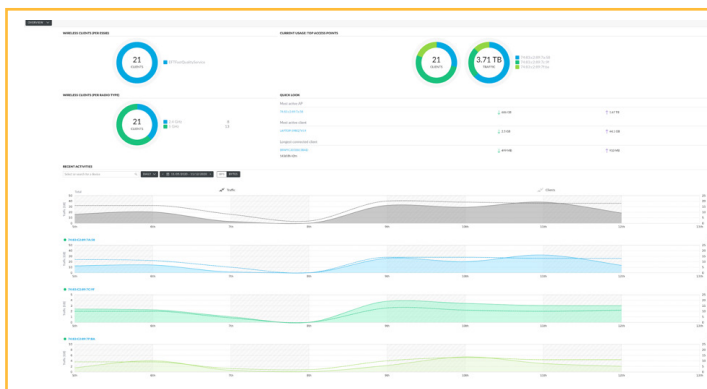
WiLine will monitor and manage the Wi-Fi network, but customers can manage both their network and the on-premises equipment via the controller portal as well. The features offered by the controller include:

### Reporting/Statistics

- Summary Dashboard of the Network
- Statistics covering Traffic, Performance, Switch, Speed Test, and Debugging Metrics
- Devices (Firewall/Wi-Fi Access Points) and LAN/Wi-Fi Clients with Connection Status, IP Address, HW/SW Model/Version and Uptime
- Events include a range of event categories with calendar or list display flexibility
- Alarms include a range of alert categories with calendar or list display flexibility

### Configuration

- Devices (Firewall/Wi-Fi Access Points)
- Settings (Site, Firewall, Network, Wi-Fi Access Points)



Cloud Controller Overview Report Example

**WiLine has been helping businesses thrive since 2002, offering tailored solutions at unbeatable savings.**

Call **1-888-494-5463** to connect today.

## WILINE MANAGED WI-FI SERVICE COMPONENTS

- Custom Wi-Fi network design and layout services based on office layout, building construction, and environment.
- Wi-Fi access point, wired and wireless mesh, deployment including wiring.
- WiLine cloud controller to manage the configuration and automated provisioning of all onsite equipment including Wi-Fi access points, firewalls and switches. Detailed statistical information on the Wi-Fi service is also available through the controller.
- Wi-Fi features such as multiple SSIDs (Wi-Fi networks), captive portals, guest networks, are included.
- Optional WiLine cloud managed router.

[www.wiline.com](http://www.wiline.com)