HULA networks

HULA WIRELESS PROFESSIONAL SERVICES

- ☑ Hula Engineers have decades of dedicated WiFi experience
- ☑ Industry leading design methodology
- ☑ Leading edge wireless design, analysis, troubleshooting tools
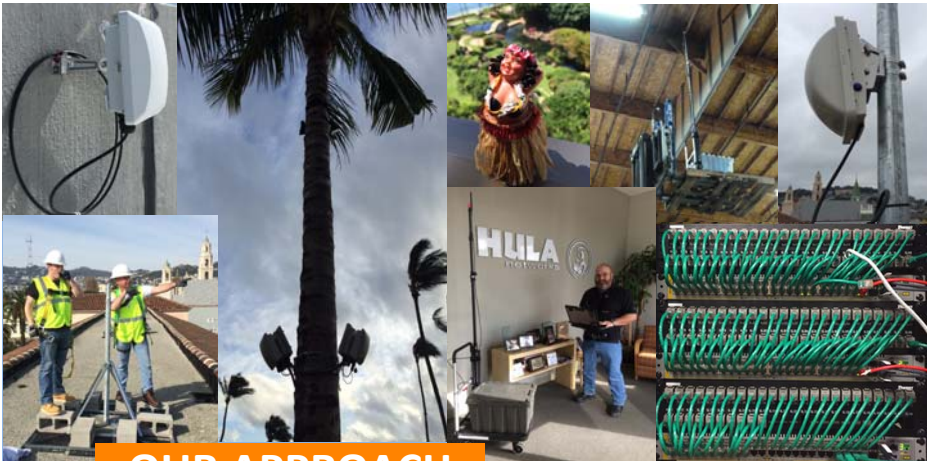
OUR APPROACH

DISCOVERY
Hula Networks, Inc. will work with you to design and install the right wireless network for your company. Our team has been trained and certified by many wireless manufacturers and has the experience to create a network tailored to suit your needs.

PROJECT PLANNING
From start to finish, Hula Networks will manage the implementation of your project. Once we finish the job, we'll provide you with full project documentation for your records.

DESIGN
Using industry leading design tools and practices, Hula Networks engineers will design and install a wireless network that meets or exceeds your company's specifications

INSTALLATION
Hula Networks' licensed installation team will install your wireless network in accordance with all applicable electrical and building codes.

SUPPORT
Hula Networks will support your new wireless network for the first 90 days after installation. All hardware is sold with a full manufacturer's warranty covering any issues that may occur after the project is complete

What We Do

- → Indoor Outdoor Wireless Design
- → Pre/Post Installation Site Survey
- → Point to Point Link Engineering
- → RF Spectrum Analysis
- → Hardware Configuration
- → Cabling / Hardware Installation
- → Network Architecture Design
- → Training

Verticals

- → Corporate
- → Education
- → Warehouse
- → Government
- → Retail
- → Health Care
- → Manufacturing

About Hula Networks

Hula Networks has been helping service providers, carriers, data centers, and large enterprise clients increase company profits, decrease expenses, and mitigate risk since 2000. We work hard to increase our client's productivity and revenues by addressing the gaps in their current communication infrastructure and providing unique solutions to complex IT challenges.

Hula is headquartered in Sunnyvale CA, with remote offices in Sacramento CA, Truckee CA, Nicholasville KY, Boston MA, Edwards CO, Arlington TX, and San Juan PR. We take pride in our strong reputation for integrity, quality, and and dedication to customer satisfaction.

The Indoor / Outdoor Wireless Design document will be a detailed report identifying access point / point to point bridge radio installation locations as determined by a wireless design engineer. This document will include predictive heatmaps as well as installation locations and requirements for the specified equipment.

- **Indoor Wireless Design**

  Based on the customer specifications, Pre-Installation Site Survey, and building floor plans, a design will be created by experienced wireless engineers that will meet the project design specifications. The delivered report will be a heatmap based document that will display the coverage provided by the placed access point radios.

- **Outdoor Wireless Design**

  Installation requirements can be unique for outdoor wireless access point radios and additional survey time may be required. Measuring coverage in an outdoor environment can be tricky and each location will be tested to ensure that the wireless network will be installed and perform properly. The deliverable reports will be similar to the Indoor Wireless Design documentation.
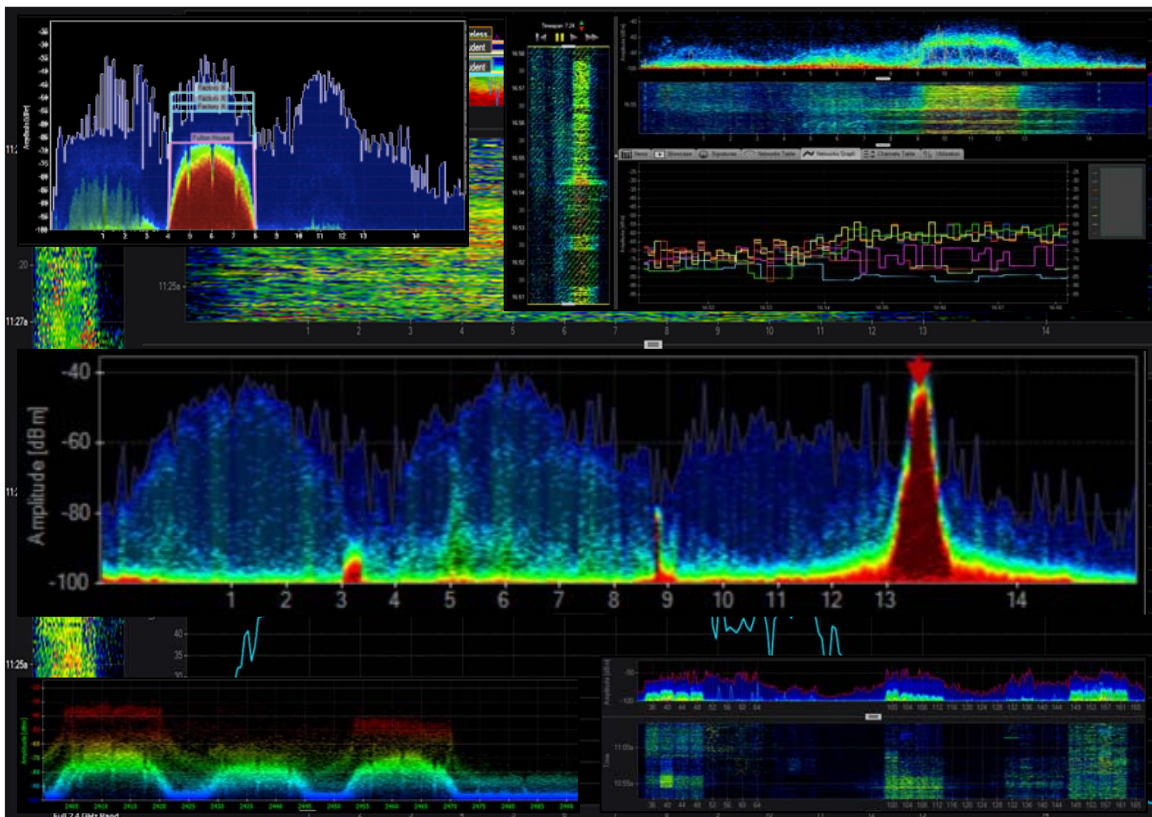
A survey will be performed to record the existing RF environment and a report will be generated to document normal and (or) potentially detrimental levels of RF interference. Two levels of granularity are available.

- **General RF Spectrum Analysis:**

  In the General RF Spectrum Analysis report, results will be generalized and reported as a whole. Only significant RF noise and interference sources will be called out and information given as to the type and severity of interference in the environment.

- **Detailed RF Spectrum Analysis:**

  In the Detailed RF Spectrum Analysis report, any RF noise and interference sources will be located and specifically identified with enough detail that the customer can locate and remove the interferer if desired. Additional information will be provided on the type and severity of interference found in the environment, if any.
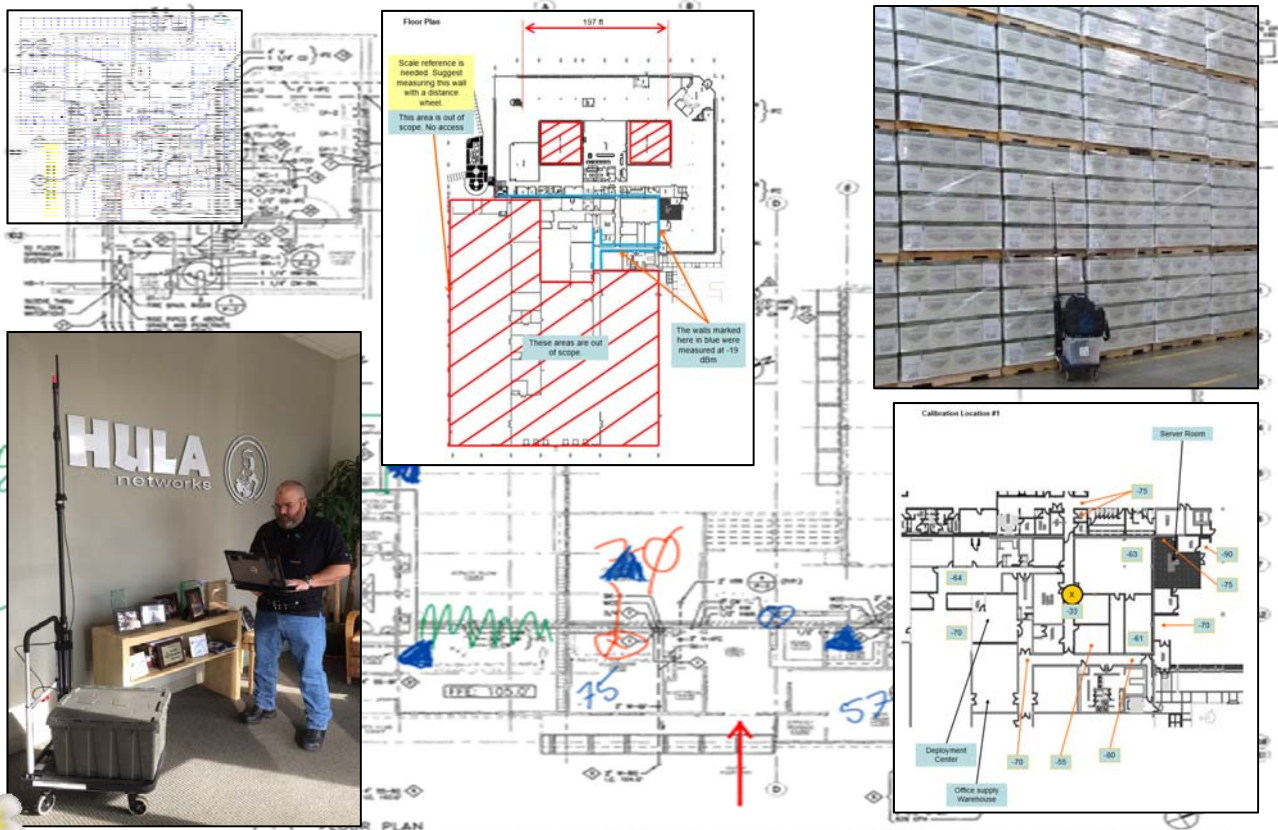
Pre-Installation Site Survey

A Pre-Installation Site Survey is required on some installation projects in order to determine the unique RF properties of the site prior to design. It may be required to create an Installation Plans report.

▪ **Design Validation**

Some projects will require a Design Validation Site Survey. During this survey an engineer will be onsite with wireless radios and measuring equipment to verify the actual RF characteristics of the in-scope areas of the project.

• **Installation Plans**

The Installation Plans report is a detailed document that will provide enough information to allow a qualified low voltage contractor to bid or install the specified wireless network. All access point installation locations will be individually documented. Cabling requirements will be specified from the access point to the wiring closet. Consideration will be taken for aesthetics and local building code. Access Point locations will be labeled in accordance with the Indoor / Outdoor Wireless Design report.

Post-Installation Site Survey

A Post-Installation Site Survey is required when documentation of a completed wireless network is required.
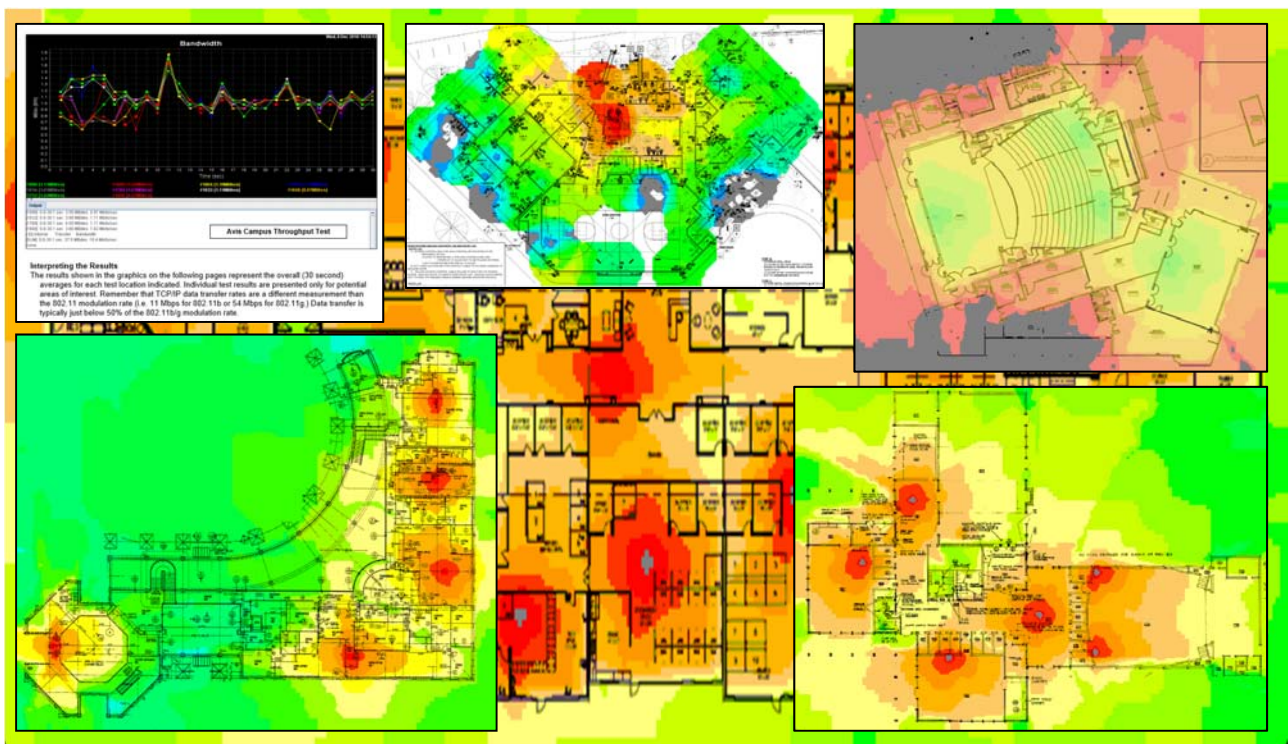
- **Installation Validation Report**

    The Installation Validation Report is a comprehensive heatmap based document that records the existing 802.11 wireless environment. This document will validate that the installation is performing up to the specifications set forth by both the customer and 802.11 standards.

- **Troubleshooting / Gap Analysis / Remediation**

    A Troubleshooting / Gap Analysis / Remediation repot documents any gaps in RF coverage within the in scope area. Heatmaps will be analyzed for complete coverage of RF signal and any area below the project design specifications will be called out.

    If gaps exist remediation of the wireless network will be performed and an Installation Plan document will be created to allow the network to be brought into compliance.

Hardware Configuration

Hardware Configuration can be done either onsite or offsite. Either in conjunction with a Hula Networks installation or separately.
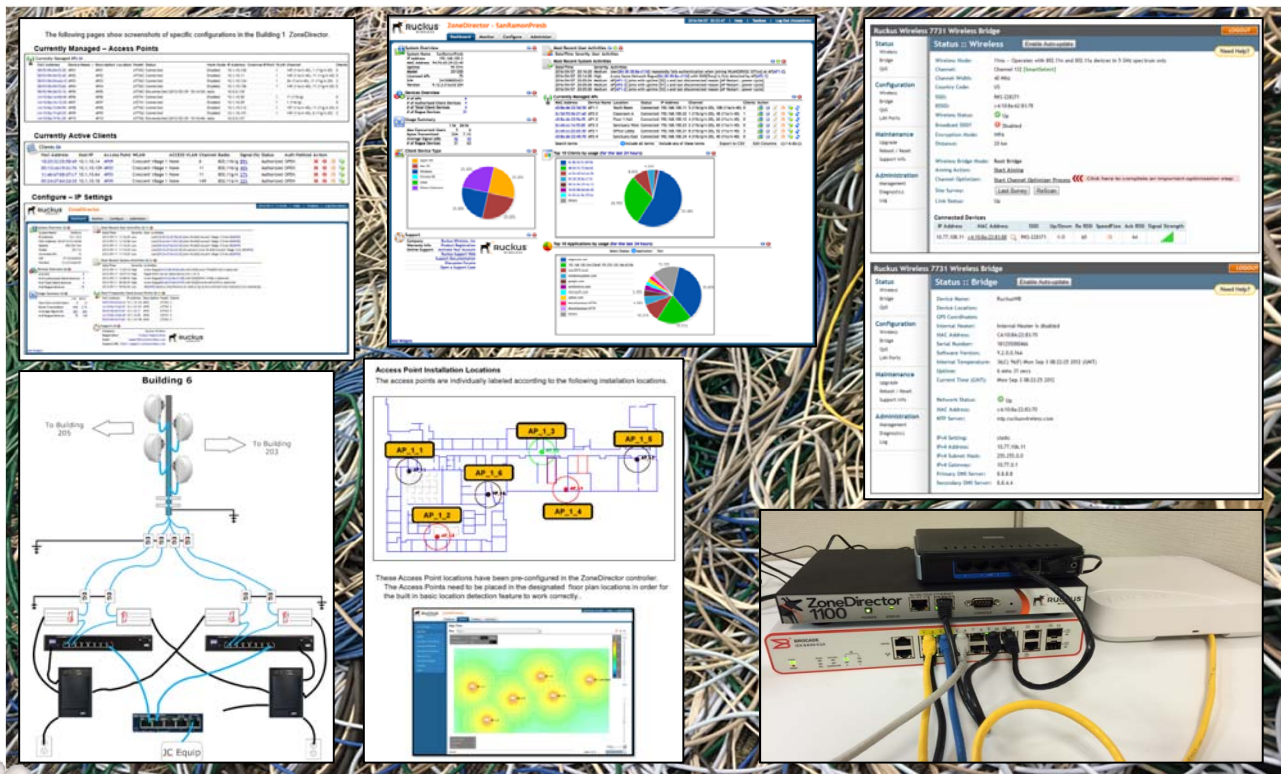
- **With Hula Networks Installation:**
  Hardware Configuration may be done in conjunction with a Hula Networks Installation. In this case the configuration may be performed onsite while our crew is installing hardware.

- **Configure and Ship:**
  The Configure and Ship option can be used when Hula Networks is not installing the wireless network. All related hardware will be updated, configured, labeled, and all documentation will be created in the Hula Networks Engineering Lab prior to shipping to the customer site.
  The Configure and Ship documentation will include all serial numbers, usernames, passwords, and any additional information required for the customers IT engineers to access and understand the hardware configuration performed.

Point-to-Point Link Engineering

A survey will be taken of the in scope area to document normal and / or potentially detrimental levels of RF interference. A report will be provided that details the results of this survey. Two levels of granularity are offered.

- **Point-to-Point Link - Site Survey**

    An onsite engagement will be required prior to designing a Point-to-Point link. Installation locations, line of sight, obstacles, RF environment must be assessed in order to provide a quality design.

- **Point-to-Point Link - Hardware Configuration:**

    If a customer wants to purchase the hardware without design services the Hardware Configuration can be done by Hula Networks wireless engineers at the Hula Networks Labs. The pre configured hardware can be shipped directly to the customer.

- **Point-to-Point Link - Hardware Installation:**

    Hula Networks can install the Point-to-Point link using licensed electrical contractors experienced in the wireless environment.
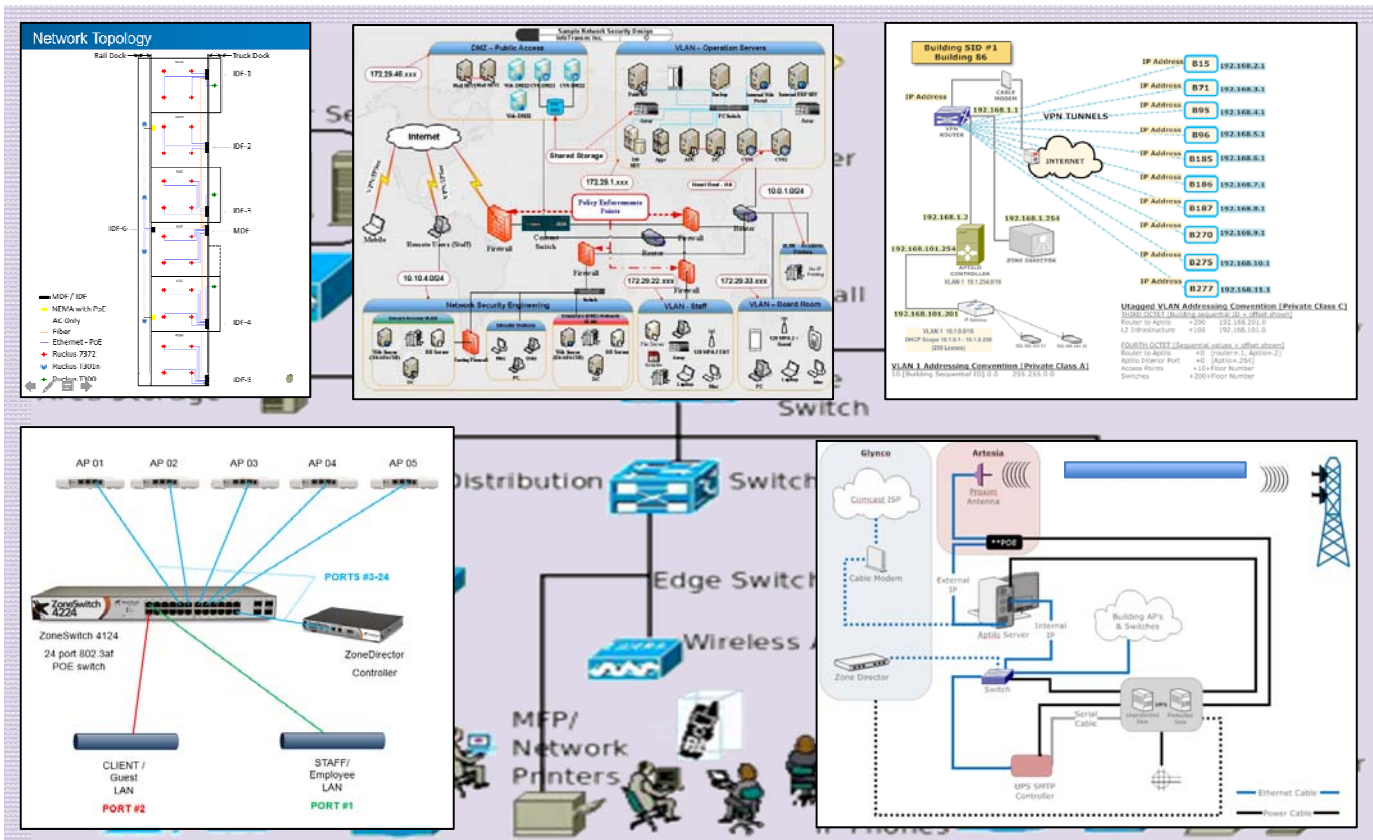
If required Hula Networks can design the required network infrastructure for a wireless installation. Most installations will be folded into an existing wired network infrastructure however, occasionally a wireless project will be installed at a location where no network exists.

Hula Networks will create the required network infrastructure documentation. The design will include detailed configuration information on routers, switches, VLAN's, etc. as required. Additionally a visual representation of the architecture will be created. The results of this work are used in configuring the wireless network equipment for the project.

Cabling and Hardware Installation

Hula Networks has licensed cabling contractors on staff to perform anything from indoor access point and controller installations to outdoor point to point links. Licenses include both low voltage and electrical. The crew has experience with all types of installations from rooftops to crawlspaces. Building aesthetics and codes are always taken into account so that the wireless network is installed properly but without creating an eyesore.