



# Case Study

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**Cabling, Wireless,  
Security Cameras:**  
Design & Engineering  
For Medical Clinic  
Expansion



## Problem:

A California based medical clinic and doctor's office needed more space to help existing and new patients and was constructing a new 3,339 sq ft building. The customer also needed upgraded telecommunications, which included infrastructure to support telehealth and virtual appointments. Also needed, was a **wireless network** that could handle doctors, nurses and staff moving around the building connecting on tablets. Furthermore, they needed it fast.

**The biggest problem:** construction had not yet started on the new building. Nothing had been designed, other than room spaces and department locations.

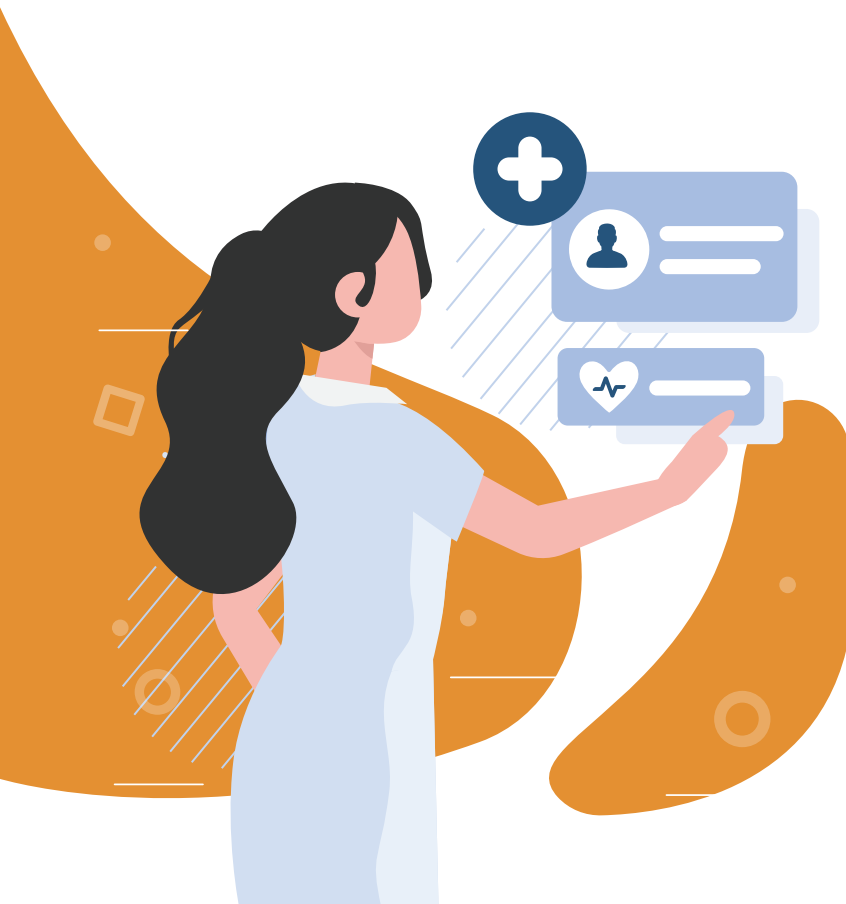
## Requirements:

The customer needed specifications to build their Request For Proposals (RFPs) along with Guidelines, List of Materials, Cable Run Maps, and Wireless Access Point locations. They also needed something they had no experience with before: an outdoor security camera system.

## Solution:

The customer approached Fastmetrics with the above requirements and we delivered. Our team designed cable runs and a wireless network design plan for the entire building, to meet client connectivity needs.

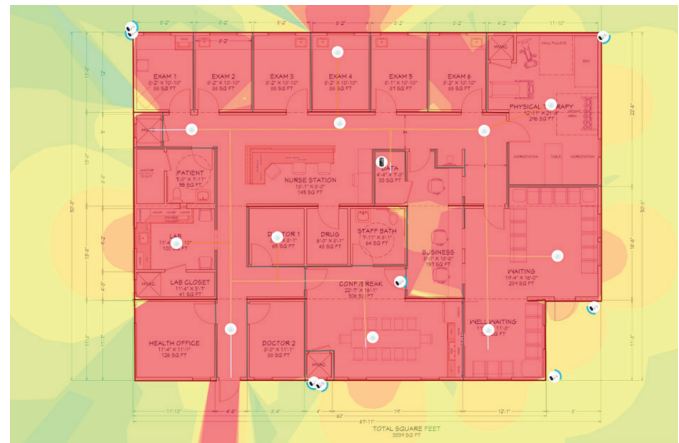
We were able to build out a complete solution, along with revisions and deliverables to the architects, designers, IT department, and executives in a readable and detailed way. This was completed before deadlines, for a fraction of the cost.



# Results:

## Estimated 2.4 Ghz WiFi Coverage

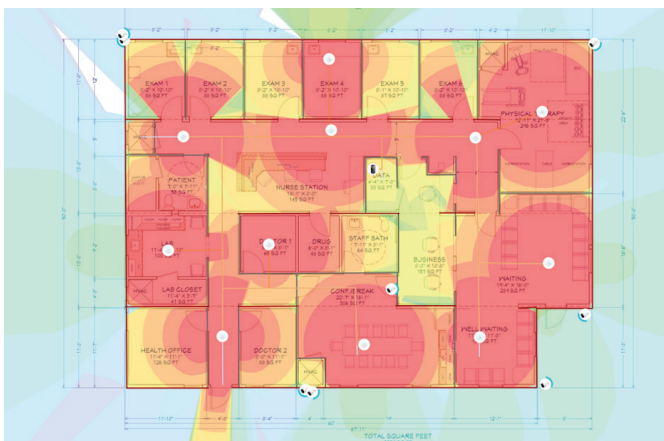
Expected 2.4 Ghz WiFi coverage for our client can be seen below, based on UniFi access point placements.



WEAK  STRONG  
-76 dBm -68 dBm -60 dBm -54 dBm -46 dBm

## Estimated 5 Ghz WiFi Coverage

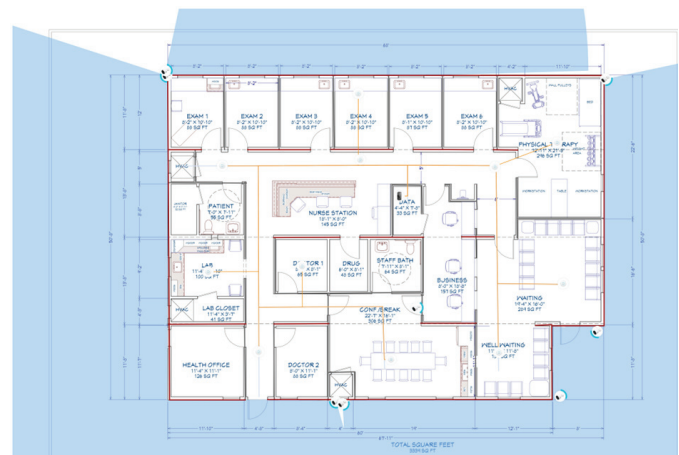
Expected 5 Ghz WiFi coverage is also below, based on UniFi access point placements across the medical clinic.



WEAK  STRONG  
-76 dBm -68 dBm -60 dBm -54 dBm -46 dBm

## Estimated Security Camera Coverage

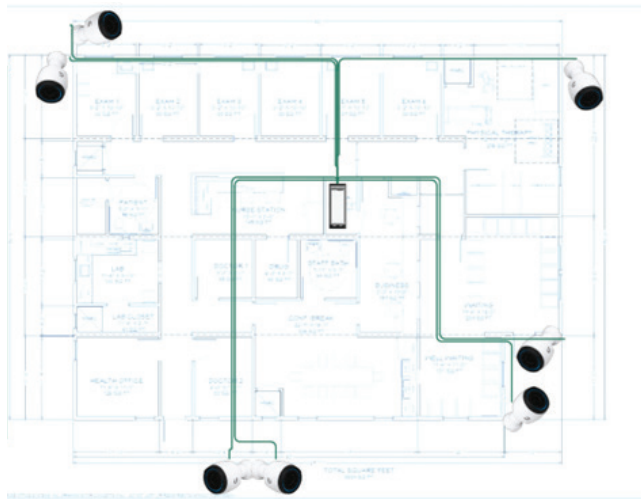
A detailed map of security camera ranges and coverage was also provided to the client.



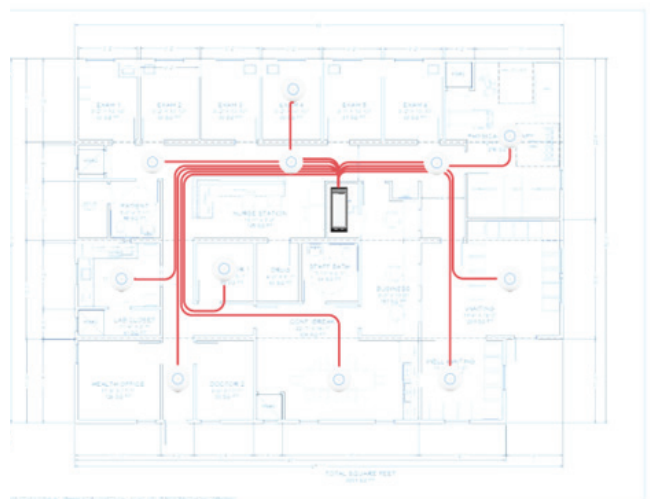
OK  GREAT  
50m 8m



**Logical Camera Cable Run**



**Logical AP Cable Run**





## How We Can Help You



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Fastmetrics has an experienced team of wireless engineers and techs, who are accredited Ubiquiti Wireless Enterprise Admins. We are the trusted business ISP of Wi-Fi Alliance, the global authority on Wi-Fi.

Fastmetrics WiFi customers and projects range from universities, medical facilities, military bases, high density residential buildings and more. We can **improve WiFi coverage**, speeds and range. We can plan and install the wireless network you need, at your commercial or residential building.



### For more information:

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