

## CASE STUDY

# WZC NETWORKING REDESIGNS THE Wi-Fi NETWORK OF A LARGE CONVENTION CENTER 50% FASTER

USING iBWAIVE Wi-Fi®

“

What I absolutely love about iBwave is the ability to not only do passive and active surveys and produce high-end heat maps, but the ability to annotate cable/devices on the map. And the ability to snap pictures for each annotation. In addition, the reporting is absolutely the best I've seen in any survey tool. Hands down the leading tool in my bag!

”

*Matt Wierzgac,  
Engineering Manager, WZC Networking*



**WZC NETWORKING LLC**

*- RF Engineering -*

## QUICK FACTS



With over 20 years of in-the-field experience, WZC Networking are industry leaders in designing and implementing wireless network solutions for commercial enterprises. <http://wzcnetworking.net>

### Location

Chicago, Illinois

### About the Venue

Type: Convention Center

### Project Goal

Improve the existing Wi-Fi network at the convention center.

### Products Used

iBwave Wi-Fi Mobile (app)

iBwave Wi-Fi (PC/Laptop)

iBwave Cloud

## WHAT'S THE STORY?

WZC Networking was hired to improve the Wi-Fi network at a large North American convention center. In order to be successful, WZC wanted to provide their customers with the most optimal design that would meet their performance KPIs.

To do this, WZC used the powerful combination of **iBwave Wi-Fi Mobile** app on-site, the **iBwave cloud** to share information, and **iBwave Wi-Fi** for the PC to finalize the project.

## THE CHALLENGES

1

### DESIGN OPTIMIZATION

Reduce the risk of over-designing by ensuring the number of antennas and the amount of equipment are optimal to meet the performance KPIs.

2

### ORGANIZING, SHARING & REPORTING SITE DATA

Reduce the number of hours, and amount of effort it takes to gather, organize, and share site survey data, and deliver a Bill-of-Materials

3

### DESIGN ACCURACY & PERFORMANCE COMPLIANCE

WZC was given a set of performance KPIs from the customer to ensure the goal of improving the Wi-Fi performance at the convention center was met.

“

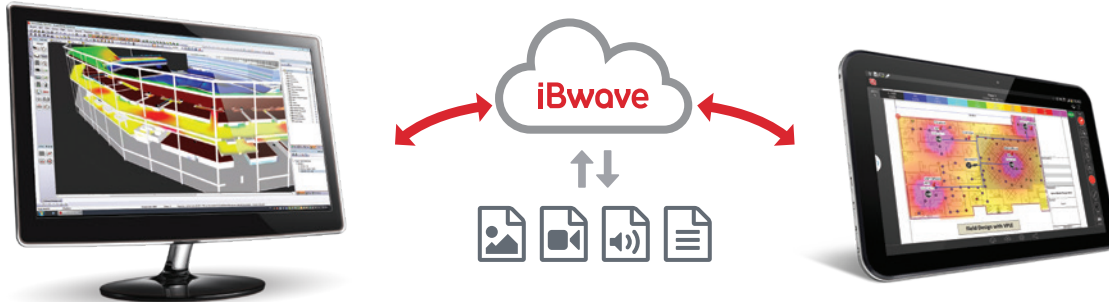
*The iBwave Platform gives me the all-in-one robust tool that I can literally do everything on the site and deliver the key documents very quickly as opposed to gather it all up on paper and then come back and try to dress it up with Excel. iBwave Wi-Fi Mobile gives me that on-site generation tool.*

”

**Matt Wierzgac,**  
Engineering Manager, WZC Networking

# THE SOLUTION

WZC Networking used the powerful combo of the iBwave Wi-Fi Mobile app, iBwave Cloud, and iBwave Wi-Fi for PC/Laptop to drastically reduce the time it took to do the site survey, design the network, ensure performance KPI compliance, and deliver an accurate and complete Bill of Materials. Here is how they did it.



## iBwave Wi-Fi® (PC)

### BEFORE SITE SURVEY

- > Import AutoCAD floorplan
- > Model venue walls

### AFTER SITE SURVEY

- > Route cabling, get automatic cable lengths measurements, place routers, connectors and switches
- > Calibrate prediction with survey data
- > Generate a complete Bill-of-Materials

## iBwave Wi-Fi® Mobile (app)


### ON-SITE AT THE VENUE

- > Run Active Survey
- > Capture site images and annotations in geo-located pushpins on the floorplan
- > Place Access Points
- > Run performance prediction on-the-spot
- > Generate Bill-of-Materials

# THE RESULTS

 **6 ACCESS POINTS**




By starting the design of the network on-site with iBwave Wi-Fi Mobile, and then using iBwave Wi-Fi for the PC to calibrate prediction using active survey data, WZC was able to optimize the design and reduce the APs required from 21 to 15.

 **50% TOTAL PROJECT TIME**

With iBwave Wi-Fi Suite, WZC was able to reduce a project that would usually take one week to just 2 ½ days. With everything done on-site with the mobile app and then saved to the cloud, WZC's field and office teams could work seamlessly together on the project to finalize the design, route cabling, add pricing, and quickly generate an accurate Bill-of-Materials.

**100%**

## PERFORMANCE KPIs MET

Achievable Data Throughput @ 5Mbps	 <b>5%</b>
RSSI @ -65 dBm	 <b>2.5%</b>
SNIR @ 14 dBm	 <b>2.3%</b>

 **DESIGN OPTIMIZATION**

 **DATA ORGANIZATION**

 **DESIGN PERFORMANCE**

## About iBwave

iBwave, the global in-building standard, offers a comprehensive software suite and hands-on certification programs that help deliver optimum wireless network coverage and capacity inside various building environments. The company, which now serves over 800 leading operators, system integrators and equipment vendors worldwide, has developed award-winning technologies to tackle network planning and deployment challenges for both enterprises and public venues. Its portfolio includes mobile applications that enable customers to streamline pre and post installation processes, perform Wi-Fi and Small Cell designs directly on-site, and facilitate information sharing in the iBwave format. For more information, please visit [www.ibwave.com](http://www.ibwave.com)



iBwave Solutions Inc. **T** +1 514 397 0606 **F** +1 514 409 2499 **E** [info@ibwave.com](mailto:info@ibwave.com)  
400, Sainte-Croix Ave., 2<sup>nd</sup> Floor, West Wing, Montreal, QC H4N 3L4 CANADA  
[www.ibwave.com](http://www.ibwave.com)