



iBwave

# Mobile Planner



## FAST-TRACK YOUR NETWORK DESIGNS BY GETTING A HEAD START ON-SITE.

For accurate network designs that are constructible the first time, start with accurate site survey information.

**iBwave Mobile Planner** is a powerful and intuitive mobile app that significantly expedites the design of networks. Take it on-site with you to collect RF measurements, capture site aesthetics, and start a preliminary design using the automatic access point placement functionality. Save all of the information to a single file and save it to the cloud for your design team back at the office to open and finish the design in iBwave Design.



### KEY BENEFITS



Simplify your site  
survey toolkit



Design for Capacity to  
avoid surprises later



Design networks and  
test coverage on-site



Easily collaborate on  
network designs via  
the cloud



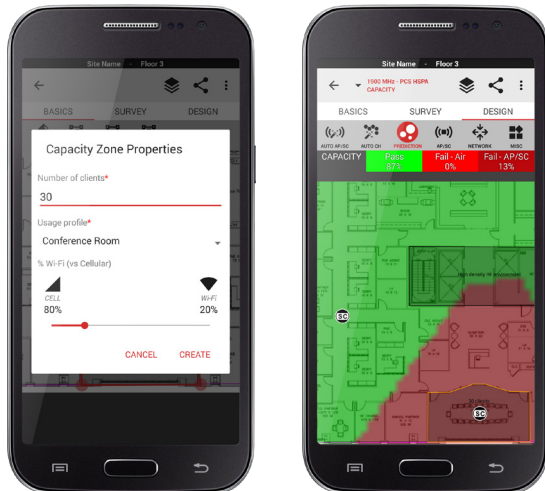
Optimize your  
resources and costs

# M. iBwave Mobile Planner

## Simplify your site survey toolkit

Install the iBwave Mobile Planner app on the existing phone or tablet you bring on-site to transform it into the ultimate iBwave site survey tool. Use it to capture and centralize customer requirements, floor plans, photos, notes, construction markup and RF measurements. You can also use the Epiq Solutions' PRISM™ scanner to survey single carrier and private LTE and 5G networks.

- ✓ Collect survey data for both Wi-Fi and Cellular networks using just your android device, or use the Epiq PRISM™ Scanner to survey multiple channels for single carrier LTE and 5G networks
- ✓ Seamlessly integrate with third-party testing tools
- ✓ Draw floor plans or create them from a picture
- ✓ Seamless data exchange with compatible network test tools
- ✓ Create geo-located pushpins with photo, video, audio and text notes
- ✓ Add construction markup & cable routes
- ✓ One-click PDF reports with annotations, output maps and BOM
- ✓ Signoff page or e-signature options to speed up the approval process



## Design for Capacity to avoid surprises later on

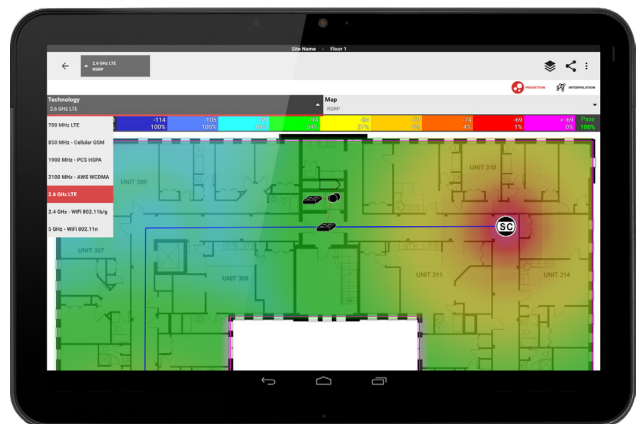
Reduce the chance of errors and create workable designs the first time around. Define peak capacity zones and number of clients per floor. With the help of capacity maps you can view pass/fail results on each floor based on set thresholds per capacity requirements.

- ✓ Set split between Wi-Fi and Cellular technologies, including VoLTE and VoWiFi
- ✓ Define peak capacity zones and set number of clients per floor
- ✓ Select simple pre-configured usage profiles (can be customized in iBwave Design)
- ✓ Instant capacity maps render pass or fail results on each floor.

## Design networks and test coverage on-site

Eliminate the risk of missing construction obstacles that cause issues during installation by starting the design of your network directly on-site with either automatic or manual access auto-placement. Then as you walk you can physically validate access point planned locations and run prediction on-the-spot to assess how the network will perform once deployed.

- ✓ Active and Passive surveys (Wi-Fi)
- ✓ Continuous Walk survey mode (Wi-Fi and Cellular)
- ✓ System design for small cells and Wi-Fi
- ✓ Access to the iBwave database of components
- ✓ Automatic Placement of access points
- ✓ Prediction maps for Wi-Fi (RSSI, SNIR, Handoff & Throughput, CCI, Overlap)
- ✓ Prediction Maps for LTE/5G (MADR, RSSI, RSRP, CDMA/WCDMA RSCP, SNIR, SS RSRP, SS SINR, SS RSSI, Capacity, Handoff & Throughput)
- ✓ Route CAT5 & CAT6 cable

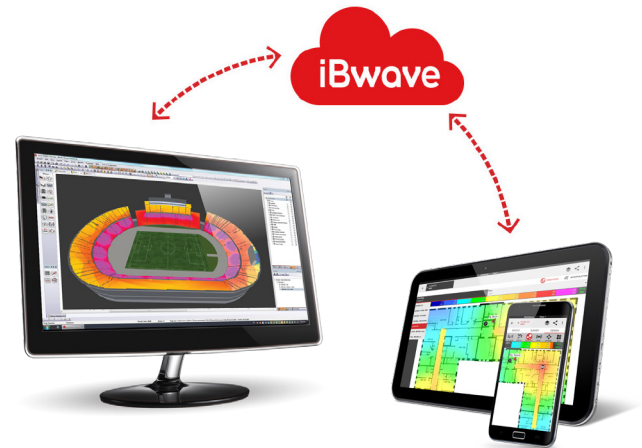


# iBwave Mobile Planner

## Easily collaborate on designs via the cloud

With iBwave Mobile Planner you can save your measurements, photos, notes and any design work you have started on-site to a single file in the cloud where it can be opened in iBwave Design and worked on by the office design team. The result? Easy file sharing and a happy design team who has all the site data they need to deliver accurate network designs.

- ✓ 10 GB of free iBwave Cloud storage included
- ✓ Ability to open and modify .ibw files in iBwave Mobile Planner or iBwave Design



## Optimize your resources and costs

With iBwave Mobile Planner, you can have a team of field technicians conducting site surveys, capturing the site documentation and starting the design of a network with the auto-placement feature, while another team is back at the office completing the detailed designs in iBwave Design. As a result, your resources, and the cost of those resources, are optimized.



# iBwave Mobile Planner

## FEATURE SET

### IBWAVE INTEGRATION

- ▶ Create a new project from scratch or from a template
- ▶ Download and upload projects from iBwave Cloud or iBwave Unity and work offline
- ▶ Transfer projects directly to/from iBwave Design through USB
- ▶ Store up to 10 GB of projects on iBwave Cloud
- ▶ Share projects from iBwave Cloud by email to external partners

### SITE SURVEY

- ▶ Display surrounding network signals (Network Scan)
- ▶ Internal data collection engine
- ▶ Capture site details, contact information and initial requirements
- ▶ Create, scale and geolocalize floor plans
- ▶ Add geolocated photo, text, video and audio annotations to floor plans
- ▶ Create geolocated pushpins with photo, text, video and audio annotations
- ▶ Draw and type text on photos
- ▶ Draw construction markup & cable routes on floor plans
- ▶ Integrate the Epiq PRISM scanner or third party network test tools
- ▶ Share iBwave floor plans, transmitters & zones to apps on the same device
- ▶ Display back all received measurements on iBwave floor plans
- ▶ Save survey measurements in the project for access in iBwave Design

### EPIQ SOLUTIONS' PRISM SCANNER SPECS

- ▶ TECHNOLOGY
  - ▶ P25, LTE, 5G
- ▶ KPIs
  - ▶ P25 KPIs: BER, RSSI, SINR, Channel
  - ▶ LTE KPIs: RSSI, RSRP, RSRQ, SINR, PCI and more
- ▶ FREQUENCY
  - ▶ Range: 70 MHz - 6 GHz
  - ▶ Accuracy: 1 ppm
- ▶ PHYSICAL
  - ▶ Size: 87 mm x 61 mm x 12 mm
  - ▶ Weight: Under 6 ounces (170 grams)
- ▶ POWER
  - ▶ Power Input: USB-C
  - ▶ Power Consumption: 3W (Active)

- ▶ POWER MEASUREMENTS
  - ▶ Accuracy:  $\pm 2$  dB @ 25°C

### AS-BUILT DESIGN

- ▶ Submit design changes to iBwave Design for approval:
- ▶ Update all components location and height
- ▶ Update antenna azimuth, downtilt and mount orientation
- ▶ Update cable routes and add measured length

### REPORTING

- ▶ Generate reports from free iBwave Viewer (PDF, PPT, DOC, XLS and more)
  - ▶ Annotations & floor plans
  - ▶ Survey measurements (plots)
  - ▶ Equipment list
  - ▶ Prediction maps
- ▶ Generate a report on the mobile device (PDF)
  - ▶ Project summary
  - ▶ Annotations
  - ▶ Output maps
  - ▶ Equipment list (including sub-components, inventory # and cost)
- ▶ Signoff page or e-signature approval option from the mobile app

### PREDICTION

- ▶ Define the prediction area on floor plans
- ▶ Define multiple attenuation zones with different density levels
- ▶ Define peak capacity zones and set number of clients per floor
- ▶ Run interpolation of survey measurements
- ▶ Run multi-floor prediction for Access Points and Small Cells using VPLE propagation model
- ▶ Consider interfering survey measurements (ex: neighboring & outdoor signal) in prediction maps
- ▶ Prediction Pass/Fail indicator on network compliance KPIs

### WI-FI DESIGN

- ▶ Collect passive and active Wi-Fi survey measurements
- ▶ Continuous Walk survey mode
- ▶ Add Access Points and Network equipment from your Central Database of Components (Over 300 components available from leading OEMs)
- ▶ Automatic Access Points placement with band optimization

- ▶ Automatic multi-floor Wi-Fi channels assignment
- ▶ Technologies: Wi-Fi (802.11 a/b/g/n/ac/ax)
- ▶ Frequency bands: 2.4GHz & 5GHz
- ▶ CAT5 & CAT6 Cable Support
- ▶ Prediction maps: RSSI, SNR, CCI, Capacity, Overlap Zone & Throughput

### SMALL CELLS DESIGN

- ▶ Add Small Cells and Network equipment from your Central Database of Components (Over 1,300 components available from leading OEMs)
- ▶ Automatic Small Cells placement with band optimization
- ▶ CAT5 Cable Support
- ▶ Technologies:
  - 5G: NR / mmWave
  - 4G: LTE, WiMAX (802.16)
  - 3G: HSPA+ / HSPA / WCDMA
  - 2G: GSM / CDMA / EDGE
  - IoT: Zigbee / LoRa / UWB
- ▶ Frequency bands: WMTS600 / 700 / SMR800 / Cellular850 / 1400 / 1500 / PCS1900 / AWS2100
  - GSM900 / DCS1800 / UMTS2100 / WSC 2.3GHz / 2.5 Ghz / 2.6GHz
  - LTE TDD 2.5GHz
  - WiMAX 2.5GHz
  - 3.5GHz / 3.7GHz / 4.5GHz
  - GPS / UWB / Public Safety 4.9GHz
  - 26GHz / 28GHz / 31GHz / 39GHz / 47GHz / 60GHz
- ▶ Prediction maps: MADR, RSSI, LTE RSRP, CDMA / WCDMA RSCP, SS-RSRP, SS-SINR, SS-RSSI, SS-RSRQ, Capacity, Handoff & Throughput

### COMPATIBLE DEVICES

- ▶ Smartphones:
  - ▶ Samsung Galaxy S20 5G, S21, S22, S23
  - ▶ Samsung Galaxy Note10, Note20 5G
  - ▶ Samsung Galaxy XCover Pro
  - ▶ Samsung Galaxy A51
  - ▶ Google Pixel 6
- ▶ Tablets:
  - ▶ Samsung Galaxy Tab S8 5G
  - ▶ Samsung Galaxy Tab S7 5G
  - ▶ Galaxy Tab A 8.4 LTE

