iBwave

#2
CASE STUDY

MOBILEACCESS
DOUBLES PRODUCTIVITY FOR SOPHISTICATED INDOOR WIRELESS SYSTEMS DESIGNS WITH IBWAVE DESIGN

FACTS-AT-A-GLANCE

CLIENT	HEADQUARTERS	FOUNDED	SERVICES OFFERED	END-CLIENTS
mobileaccess.	Vienna, VA, USA	1998	Provider of in-building wireless coverage solutions	Clarian Health • the Comcast Center • Ford Field • GAN Tower(Paris) • the Dutch Parliament building • Hearst Corporation • Melbourne Australia Airport • Northwestern Memorial Hospital • Royal Dutch Shell • The University of Phoenix Stadium.

BENEFITS

iBwave Design helped MobileAccess to:

- Dramatically reduce labor costs for signal strength testing
- Reduce capital costs of end-clients when migrating to a new technology through design optimization
- Increase design productivity by 200%
- Save VARs' time spent on design reviews by 600%.

"iBwave Design easily paid for itself within a year, by doubling productivity for our design staff and virtually eliminating the cost of physical signal testing. It's one of the important tools we use to ensure robustness of infrastructure with a minimum of equipment that we're known for."

Connie LaGuardia
Director of Solutions Engineering MobileAccess

DESIGNING FOR THE FUTURE FOR EVERY INDOOR ENVIRONMENT

When you provide wireless communication coverage for clients like Hearst Corporation, Northwestern Memorial Hospital, Royal Dutch Shell, as well as all of the major North American wireless operators, you've got to have a special edge.

Indoor wireless firm MobileAccess gets that special edge by designing systems that ensure complete coverage while providing a long-lasting infrastructure for adding future services.

That means customers and VARs only have to set up the equipment once, and can easily add services like Wi-Fi or medical telemetry to their cellular service, without having to touch the existing infrastructure.

The key to making their installations "future-ready" is a DAS (Distributed Antenna System) design that provides high-quality coverage over various frequency bands and technologies.

"Wireless technology is evolving at an ever increasing pace with new technologies constantly appearing in the market," says Connie LaGuardia, Director of Solutions Engineering at MobileAccess. "We have to be able to create designs that can accommodate those changes as much as possible, while also being able to quickly assess a current design to see how we can best incorporate that new technology."

Outdated design methods slowing them down

To build and manage these designs, MobileAccess used to rely on a mishmash of software, including AutoCAD, PowerPoint, Visio, and Wireless Valley.

And every time a change was made, engineers would have to update each relevant document, be it the bill of materials, the conceptual drawing, or the design itself.

"Our engineers are extremely conscientious of design accuracy," says Connie. "It was incredibly time-consuming having to update each document and ensure errors weren't creeping into the final documents," says Connie.

That means customers and VARs only have to set up the equipment once, and can easily add services like Wi-Fi or medical telemetry to their cellular service, without having to touch the existing infrastructure.

To put an end to labor-intensive physical signal testing and document management, MobileAccess implemented iBwave Design, an indoor wireless design software tool that fully automates the design, planning, and management of indoor wireless networks, and predicts their performance.

With iBwave Design, every relevant file, be it bill of materials or conceptual drawing, is automatically updated, virtually eliminating the potential for error.

Design team increases productivity by 200%

"Now that there is only one file to update, instead of several, errors have dropped by more than 90 percent," Connie says. "Our engineers no longer have to spend time updating and correcting these errors, and put all their focus on creating optimal designs."

"With iBwave Design, our engineers are now producing designs in half the amount of time they used to," she enthuses.

The MobileAccess team also uses iBwave Design to test various scenarios, to create designs that will best accommodate future potential requirements.

"We use iBwave Design's propagation tool to model future services in a virtual environment," says Connie. "We can test and retest various scenarios, all without having to physically send out engineers to test various equipment set-ups."

"Users can test various scenarios by selecting from a database of MobileAccess in-building wireless components. "We use the built-in library of MobileAccess components available, which makes it easy to accurately test out various set-ups while assessing the costs of each option."

That means significant cost savings for the wireless service provider, which ultimately reduces costs for their end-client.

"For a typical large campus environment, we used to have to send ten staff out with spectrum analyzers to spend hundreds of hours testing and retesting various models of coverage," says Connie. "It was time- and labor-intensive, and that labor is not cheap. iBwave Design virtually does away with that cost."

"We can simulate the effects of new technology on an existing design in as little as 20 to 25 minutes, allowing us to easily upgrade for a new technology without having to redesign it from scratch"

Assessing the impact of new technology easily

The iBwave Design propagation tool also makes it easy for users to evaluate the impact of new technology on an already existing design. "We can simulate the effects of new technology on an existing design in as little as 20 to 25 minutes, allowing us to easily upgrade for a new technology without having to redesign it from scratch," says Connie. "We also get an automatically updated layout plan and link budget. It's much more cost-effective."

Similarly, the software tool makes reviewing designs from VARs much easier. "Without iBwave Design, I have to look at an image of a design, scale it off, count things up, compare the bill of materials, and usually ask additional questions," she says. "Using iBwave Design cuts down the time to review a design from three or four hours to 30 minutes." VARs are also benefiting from iBwave Design by using it as a training tool in MobileAccess's design courses.

"We use iBwave Design in our RF design class, because it's a simple, intuitive program that's very easy to learn," says Connie. "No matter what program people normally use, they can grasp iBwave Design quickly enough to complete the design exercise at the end of the class."

With increased productivity, reduced labor costs, and a more nimble reaction time to technology changes, it looks like iBwave Design will be helping MobileAccess be even more "mobile" for providing exceptional quality, long-lasting indoor wireless solutions.