



Users carrying a mobile device that gets cut off from wireless access become increasingly frustrated. With small cells, distributed antenna systems (DAS), Wi-Fi off-load and more, competing carriers are using different solutions to offer the quickest and highest quality coverage imaginable. To keep true to their promise, networks have to adapt to the ever-evolving technologies, including the latest LTE rollouts.

As the planning for indoor environments becomes more critical, so too does the overall management of the many design plans, deployments and technology evolutions. Reducing dropped calls in indoor mobile voice connections was once the primary focus of service providers. But today's users question how they are supposed to get the full mobile experience, when they cannot even connect online. The in-building challenges facing the industry are widespread. But anticipating this growth in indoor demand, the Canadian firm iBwave proactively developed solutions that are meeting the needs of the rising hurdles.

Mario Bouchard serves as President and CEO of iBwave. His visionary approach has led the company to win numerous industry awards. He co-founded iBwave in 2003, a company globally serving over 300 leading telecommunication firms, in over 80 countries worldwide, with innovative in-building solutions. He took his 15 years of experience working for TELUS Mobility and Bell Canada, two leading Canadian wireless operators, to create a unique suite of products that would address the needs of the in-building wireless market, soon becoming the standard for the entire in-building ecosystem.

Telecom Review's Toni Eid recently met with Mario to give our readers more insight into the wireless industry and how carriers are becoming even more focused on proper design and planning. The following are some highlights of Mario's perspective on the industry:

**TR NA: Wireless is an explosive industry today so we can imagine that your business is growing. Can you please tell us more about your growth in the last year?**

iBwave has seen immense growth in the past few years, relative to the explosion of the in-building industry that took place around 2010 in the U.S. and Canada. The company growth has been higher than the market growth though because there was some catching up to do, so to speak. Given the design challenges associated with today's demand for data, what used to be done ad hoc now needs to be done professionally and with specific tools. iBwave's CAGR (Compound Annual Growth Rate) has actually been 50% within the past five years, as opposed to 18% for the in-building industry. We've seen a boom in 2011 in the Middle East and now the same is happening in Europe, Asia and Latin America due to compelling events such as the Olympics and the FIFA World Cup.



**TR NA: With the growth in mobile data do you see mobile carriers needing to redesign their in-building networks in order to handle more data than voice?**

Yes, I see this in two ways. First, any system that was designed before the data age needs to be fully redesigned in order to obtain the full benefit of HSPA, LTE and capacity. The technology has completely changed and the designs are therefore very different and require a higher antenna density. Second, in-building professionals need to change their design mentality in order to handle the new technologies. For example, when designing for voice, you could put one sector in a stadium whereas today you could have twenty sectors. The design challenges are humongous, as you can imagine.

**TR NA: As a CEO who has built a successful firm can you please give other telecom CEOs some good advice on handling growth?**

I have three pieces of advice for other CEO's. Being close to customers and listening to them has been important for the growth of iBwave. Business is not a product – it is people dealing with people so it's important to stay close. Despite being a small company with an international presence, we try our best to use all of the tools available to us in order to get valuable customer feedback.

This includes traveling, going to events, hosting seminars, webinars, customer surveys and having iBwave representatives available to cover all of the time zones. A company is also about people and having the right people in the right seats. We're constantly building our team of "A" players, which means having the courage to replace the people who aren't in the right seat. Lastly, it's focus. We're often being approached with new opportunities and it's easy to get side tracked. But once you have a strategic plan, you have to stick to it and you can't let other business opportunities take you off your path.

### **TR NA: As the CEO of iBwave, what has been your biggest challenge and how have you handled that challenge?**

I've had many challenges since the creation of iBwave, from the challenges of starting a new company, to reinventing myself from an RF professional to a business person. But the biggest challenge of all has been participating in the creation and education of the in-building market in order to standardize the entire in-building wireless industry. In 2003, when I started iBwave, the term "in-building" didn't even exist in a telecommunications context. As an in-building designer myself, I knew how time consuming it was to design an in-building network and how much manual work it required.

That's why we developed iBwave Design, which still remains our flagship software after nine years. The years following were spent educating the industry on the need for in-building wireless network coverage and capacity, an effort that has only recently come to full fruition after many years of persistence and patience. 95% of networks are deployed outdoors, and 80% of traffic occurs indoors. There's a mismatch between the user and usability and this has been our primary point when educating the industry. We have become the in-building standard in North America through rampant use of our software and industry recognition of our certification programs. But as I mentioned before, the in-building industry has only recently begun to mature in Europe, Asia, Latin America and the Middle East so we still have a lot of work to do in these regions if we want to attain the same success.

