

***Interested in Tampa Bay's newest hot spots?
Planning is essential to successfully tapping into the wireless trend.***

While personalizing your ring tones and using your cellular phone as a camera are the current rage, much bigger and potentially life changing activities are making the scene in New York, California, London, Tokyo, and even right here in Tampa Bay. What I'm talking about is broadband wireless access on the go. Touted as one of the fastest-growing electronics technologies in history, Wireless Fidelity (better known as Wi-Fi) will allow us to tap into virtually any type of communication medium from virtually any type of venue. Imagine enjoying a movie, engaging in a live conversation complete with picture, or downloading complex data, all while sipping on a cup of coffee, flying in an airplane, or filling up your gas tank. This somewhat silent revolution will forever change the way we work, learn, and play.

Everyone is talking about it. But all talk and no action won't put profits in your pocket. Now's the perfect time to get involved with Wi-Fi, but it takes more than a casual approach to take it to its full advantage. A solid plan can make the difference between a disastrous encounter and a match made in heaven when it comes to implementing wireless.

America's newest love affair

All across the globe, homeowners and businesses alike are getting turned onto wireless. So what's the attraction? Just as when television was introduced in the radio days or, more recently, when audiotapes were replaced by audio CDs, Wi-Fi will change the way we communicate and interact with one another.

The wireless phenomenon is also the next logical step in our nation's love-hate relationship with computing. The first milestone was centralization. From there it got personal, putting unthinkable power at our fingertips. Then we realized the wonders of networking. Which brings us to the present where everyone is mobile and everything is to go, including access to technological resources regardless of where they reside. In other words, home is where the hot spot is. The number of hot spots, locations where you can access Wi-Fi today, is growing significantly every day. Soon you'll not only be stopping to refill your gas tank, you'll also be filling up your laptop or PDA with the latest data, information, and videos.

From awkward beginnings

The interest in Wi-Fi hasn't necessarily been love at first sight and mixed feelings exist to-date. Early attempts yielded disappointing results, in large part due to lack of a viable business model. Take MobileStar's efforts to turn every Starbucks into an access point for wireless. They were the industry leader in hot spot placements until they filed for bankruptcy and were purchased by T-Mobile. But today things are really steaming up on the Wi-Fi front with growing demand, many of the largest corporations getting involved, significant cost reductions in equipment and devices and increasing numbers of hot spots. It's time to give it a shot.

Getting acquainted

So what exactly is Wi-Fi? It stands for 'Wireless Fidelity', and is the generic marketing term for any type of 802.11 network. Much like the uninhibited Internet, Wi-Fi is open and unregulated. In addition to this common ground, Wi-Fi goes above and beyond by linking people on the go to the Internet, networks, and data without being tied down, free of the physical limitations imposed by wires.

In the short term, Wi-Fi shares the unlicensed 2.4 GHz radio band frequency with portable phones and microwaves. Given that, in this range, the dance card is already plenty full, we can soon expect the 5 GHz spectrum to be allocated to WLANs, offering higher speeds, greater

reliability and better throughput. Current coverage spans several hundred feet, but efforts are underway to expand this to more than ten miles.

Base stations, or "access points", provide the connection between the wireless network and the Internet, plus direct traffic between connected devices. Existing laptop users can simply insert a \$50 card into their "Ethernet Port" to get "plugged" in. Most new PCs come equipped with Wi-Fi capabilities already built-in, freeing up that extra slot for other uses.

Corporate America is no stranger when it comes to wireless. Private Wireless Local Area Networks (WLANs) have been used for years to link users within an enterprise. Currently, 57% of U.S. Corporations have gone wireless at least on a small scale. Wi-Fi is good for business since it alleviates having to constantly re-wire desks and cubicles every time there's an office change. Plus, laptop users can stay connected whether they're working in a conference room, boardroom, or even the cafeteria.

What is new is using this same technology to provide wireless Internet access from a variety of popular public venues – hotels, airports, conference centers, bookstores, coffee shops, even parks. What beats a power lunch? You guessed it – a power picnic.

What's so appealing about Wi-Fi?

Wireless technology is charming its way into homes and enterprises alike. There are plenty of reasons why home users and big business are passionate about Wi-Fi. It's fast. How fast? Try 50 to 200 times faster than dial up connections or cellular data access, and ten times faster than DSL. It's affordable. Wi-Fi cards run as low as \$50, access points as inexpensive as \$100. Talk about a cheap date. You can bet there's no place like home when a single access point feeds a family of three computers via a high speed DSL or Cable Modem from anywhere in the house. Simply add a router and they can all connect at the same time. Of course, implementing wireless across an organization is a bit more pricey. And without the need for wires, Wi-Fi affords the ultimate freedom to stay connected anytime, anywhere.

Wi-Fi has other attractive qualities. For proud homeowners seeking to keep up appearances, there are no holes to drill in the walls or cables to cover up. For business, going unplugged can reap improvements in productivity, decision-making, employee and customer satisfaction, and overall margin. Wi-Fi easily accommodates frequent employee changes, office or entire business relocations, and rapid growth. FedEx estimates Wi-Fi enabled workers are 30% more productive. Pretty impressive when you consider that some estimate that with as little as a 1% gain in productivity per employee, an organization can yield an ROI of 50%+ and realize payback in less than a year.

But Wi-Fi is not without its shortcomings. The lack of partner agreements makes it close to impossible to deliver seamless service to wireless users when roaming. The goal is a more user-friendly structure that delivers smooth transitions between carriers and single source billing. Companies within the Wi-Fi arena will need to mingle in order to meet customer demands and level of service expectations. Technical incompatibility and hot site availability are also issues, though they will likely be resolved in the short term. The other major hurdle, and it's a biggie, is overcoming feelings of insecurity. The good news is there are safeguards already available, and more on the horizon.

There's no need to be afraid of commitment when it comes to Wi-Fi

With companies like Microsoft, Intel, IBM, Cisco, Verizon, AT&T, Toshiba and T-Mobile getting involved, it's clear that the trend towards Wi-Fi is more than mere infatuation. Clearly, the benefits outweigh the risks. While you're not about to fall head over heels for the standard Wi-Fi marketing hype, these statistics should turn at least a few heads:

- Boeing plans to add Wi-Fi to its airplanes, a sure sign that wireless is really taking off.

- AT&T, IBM and Intel have joined forces to create Cometa Networks. This powerhouse venture is aiming \$30 million at installing 20,000 access points throughout hotels, retail stores, restaurants and gas stations within 50 U.S. metropolitan areas by 2005.
- UPS absolutely, positively will be there overnight with plans to have 1,700 facilities worldwide ready to tap into Wi-Fi by mid-2003.
- T-Mobile is turning 1,000 Kinkos locations into hot spots, significantly expanding the range of services it can offer to customers.
- It just might be the next best thing to being there when Verizon Communications transforms seldom used pay phones into Wi-Fi access points.
- From fast food to instant Internet access, the golden arches are hungry for their share of the wireless space. Diners at McDonald's in Manhattan can digest data and a Big Mac at the same time. Plans are to super size efforts to include 300 restaurants by year-end. Would you like fries with your high-speed frequency?

And, it doesn't stop there. Campuses, whole cities, even entire countries are engaging in Wi-Fi.

Wi-Fi offers a cost-effective way for schools to kindle a student's natural affinity to using computers and can significantly enhance the learning experience. The result is the, often discussed though seldom achieved, creative learning environment which capitalizes on the information intensive Internet. Wi-Fi can shift the learning curve into warp speed, allowing students to quickly become experts in whatever subject they elect to pursue. If knowledge is power, think of the leverage both students and teachers would gain by having instant access to information not only during class, but when traveling to and between classes or while grabbing a bite in the cafeteria.

At speeds up to 200 times faster than dial-up, and round-the-clock availability, students and teachers will be constantly challenged as the pace of change becomes ever faster and greater. No more waiting for access to the computer lab. With Wi-Fi, students will be able to thrive and excel in a dynamic learning atmosphere that offers both text and video, plus the opportunity for greater communication and collaboration.

Wireless capability has been used in some areas of the country as an incentive to attract the best and brightest faculty members by providing a competitive advantage over other schools. Wi-Fi could also be an equalizing force in what has been called the digital divide, especially in disadvantaged areas, where students could have access to information and files that were previously beyond their reach before the wonders of broadband technology.

Many schools are beginning to put wireless to the test. New York City is taking the hot spots by the horns, launching a program nearly two years ago to outfit their school system with Wi-Fi. They're playing it smart by tapping into the federal E-Rate's Universal Service Fund, created in 1997 to provide subsidized technology to schools and libraries. Most of New York's poorest schools will qualify for 90 percent discounts on all commercially available telecommunications services, including wireless.

While the United Nations is stepping up its efforts to promote Wi-Fi as an important emerging technology for developing nations, many cities and communities across the world are becoming Wi-Fi friendly. While few have been as aggressive as Paris, implementing service throughout the city (both above and below ground), areas such as Long Beach, California, Athens, Georgia and Portland, Oregon are providing coverage in areas where the technologically savvy and cultural elite mingle and communicate.

- Long Beach has deployed free wireless Internet access in the downtown area.
- Athens provides a totally free cloud that covers all of downtown and the University of Georgia is creating a 24-block wireless zone.

- Portland's "Personal Telco" provides free public access wireless services around the metro area.

Why free Wi-Fi access? Simple. Offer it, and they will come. These communities are reaping the rewards of greater foot traffic and increased revenue from traditional sources.

Based on the list of most unwired cities, Tampa-St. Petersburg-Clearwater ranks a lowly 55th, coming in just ahead of Harrisburg, Pennsylvania and just behind Albany, New York. The bright side is there is plenty of opportunity to grow since substantial investments in Wi-Fi have yet to be made.

Is your technological clock ticking?

It's time to stop flirting with the idea of going wireless, and get serious. The opportunity is increasing by the numbers.

Pricing for wireless equipment is dropping significantly. While only 20% of business laptops are Wi-Fi enabled, this number is forecasted to reach 95% by 2005. Hot spots are on the rise. Nokia and IBM are predicting 100,000 globally by 2006. Pyramid Research forecasts there will be 60 million potential wireless LAN users in the United States by 2007.

Then there's user demand. From sales reps and real estate agents, to delivery managers and insurance adjusters, over 11 million in the U.S. alone dial into corporate networks on a regular basis. The increasing demands of business professionals to access data on the road are forecasted to drive significant growth in the WLAN market.

Finally, Cometa states that, including laptops, handhelds, wearable devices and vehicles such as cars, planes, and buses, over 100 million devices will be Wi-Fi enabled by 2008.

How do you break the ice and plunge into Wi-Fi?

Finding a profit-oriented wireless business model isn't a simple proposition. Like any new relationship, it promises to be both exciting and challenging. Knowing when to make your move and, more specifically, which moves to make, requires real finesse. And with so many wireless choices, such as GPRS, 1xRTT, 3G, Wi-Fi, and many others all vying for your affections, it can be difficult to determine which is the best match for you.

Without a plan, you may very well kiss your wireless days goodbye. While Wi-Fi can help you make decisions faster, increase productivity, and boost employee satisfaction, it's critical to evaluate how it will impact your business plan and financials. Before you get too involved, and given that the most significant challenges with wireless are more business related than technical, it makes perfect sense to enlist the help of a management consultant who is experienced in high tech. This one, simple decision during the early stages can prove to be invaluable when it comes time to make even tougher ones such as whether or not Wi-Fi is compatible with your long term goals, when it's best to partner, and precisely which types of companies to mingle with.

XXX, a Tampa based management consultant, is one such resource. Whether your goal is to reduce costs, expand your network's reach, or build a profitable business based on Wi-Fi, we can help. Relying on over 20 years of experience and success, including a significant amount of time spent within the wireless industry, XXX provides: Business Planning, Strategy Development, Product Planning, Marketing Conception and Implementation, Alliance Management and Partner Reviews and Market and New Opportunity Analysis. Our outside-the-box approach delivers true innovation, and is ideally suited for how to make the most of wireless technology.

It's time to start meeting like this

No doubt about it. Wireless is where the action is. Are you ready to engage in the Wi-Fi revolution? Be sure to stay tuned for coming attractions.