Wifi Buying Tips

WiFi Buying Tip #1 - Bandwidth Shaping

Be sure your WiFi Provider has written software code that allows the WiFi access points to automatically monitor and control the bandwidth use of each individual Park Guest. Much like the hot water supply on property, you don't want a few Guests taking all the hot water and leaving cold showers for everyone else. The same is true in WiFi. You DON'T want one Guest freely consuming excessive amounts of bandwidth that'll slow down the connection for other Guests. A good WiFi Provider will have "smart" access points that automatically control bandwidth consumption of each Park Guest to avoid this issue and create a pleasant online experience for all Guests. Your Park Interpreters and Staff will also appreciate a faster Internet connection, and, will be more productive as a resultâ˜º.

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WiFi Buying Tip #2 - Controlled Access
When choosing a WiFi Provider for your Parks, be sure your Provider can instantly control access of who can and cannot use the WiFi service on property at any given time. This controlled access feature becomes increasingly important in the event of a city, state, or national emergency when authorized personnel need to work together to make quick, rational, and often life-saving decisions. As soon as the general public is blocked from the WiFi service, Park Rangers, the Sheriff's Department, Fire Department, and other mission critical Resources will then have the full amount of broadband available in to the Park to more quickly exchange sensitive information (eMail, text messages, etc) without risk of intercept or slow downs in data transfer by the general public.

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WiFi Buying Tip #3 - Preferred Lists
In tip #2 we talked about controlled access that becomes especially important during an emergency when support personnel (Police, Fire, etc) need full access to the local WiFi at your park without risk of slow downs by Public use. Buying Tip #3 falls in to the same category as it relates to WiFi access. For this tip, be sure your WiFi Provider has what is called "preferred list" capabilities. A preferred list is a list of computers that your Provider has removed the need for authentication â€“ or log in â€“ each time they go online (Nomad offers up to 10 preferred list computers per park). Rather, those particular computers are "always on" just like at home or the office. When you turn the computer on or wake it from sleep mode wha-la, you've got Internet access. Preferred lists are primarily intended for staff computers as a convenience.

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WiFi Buying Tip #4 - Administrative Portal
In tip #3 we talked about what is called "preferred list" capabilities whereby your staff computers at the park need not go through the log in process to access the Internet; rather, they're "always on" just like at home or the office.

In WiFi Buying Tip #4, we're talking about making sure your WiFi Provider includes an administrative portal that allows you to see which Guests are using the WiFi... how much bandwidth they're consuming in a 24-48 hour period... how close the park is to hitting your Fair Access Policy (FAP) limits when using satellite broadband... the list of WiFi access points on property and their up/down status... quick/easy access to printing secure, access coupons for Guests... changing your prices as needed if charging Guests for WiFi... and other administrative features that give you much needed visibility and control over your commercial-grade WiFi network.

To see a demo of NomadISP's administrative portal affectionately titled "My WiFi Manager", click here or copy/past this web address in to your browser:

https://admin.nomadisp.com

(Username: demo / password: demo)

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WiFi Buying Tip #5 - VOTE for Low Radio Power Levels
In tip #4 we talked about making sure your WiFi Provider includes an administrative portal that allows you to see which Guests are using the WiFi... how much bandwidth they're consuming in a 24-48 hour period... and other key administrative features that give you much needed visibility and control over your commercial-grade WiFi network. If you

didn't get a chance to view NomadISP's administrative portal affectionately titled "My WiFi Manager", click here or copy/past this web address in to your browser: https://admin.nomadisp.com/admin/index2.php (Username: demo / password: demo)

In this week's WiFi Buying Tip #5 â€“ and in the spirit of election day â€“ we're encouraging you to VOTE for Low Radio Power Levels. Here's why. After 6 years installing over 800 access points across North America, we've learned a very important distinction: fewer access points positioned farther apart with the radio power-levels turned up is BAD in most situations. On the other hand, more WiFi access points positioned closer together (approx. every 500 feet depending elevation changes, trees, etc) with the radio power-levels turned down is GOOD. With the power-levels turned down, the access points won't be "yelling" at each other (which raises the WiFi spectrum's "noise floor" causing connection problems for you and your Guests) when exchanging the data packets that make up your e-mails, text messages, web pages, etc. Just like we as humans prefer talking to one another at normal volumes, WiFi access points prefer the same. Make sure your WiFi Provider understands this ever-important detail on positioning access points and adjusting the radio power-levels come time to engineer a solution for your park(s)!

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WiFi Buying Tip #6 - Diagnosing from the Ground

In Tip #5 we talked about the importance of contracting a Provider who understands radio power levels when working with wireless fidelity technology (WiFi) and how â€“ more often than not â€“ a good, solid mesh-network of wireless Internet is achieved by installing WiFi access points closer together with the radio's power-level turned down.

In this week's WiFi Buying Tip #6, we're talking about a simple feature that allows you and/or your staff to help troubleshoot WiFi access points on your property. Typically, WiFi access points are mounted on a pole or rooftop 20+ feet from the ground. At these heights, the access points can achieve line-of-sight with one another (more on that best practice in Tip #8). However, come time to help troubleshoot these access points if/when needed, 20 feet is a long way up.

When shopping WiFi Providers, ask if they've built in some sort of physical indicators to help diagnose your access points from the ground. For example, NomadISP's Series V access points that went to market earlier this year, now include two, bright LED lights on the bottom side of the radio case (easily seen from the ground). One light is green to confirm the access point has power. The other light is blue to confirm the access point has a active Internet connection.

When an access point goes down or has an issue, often times step one is confirming power and Internet connection before diving in to other troubleshooting steps to get the access point back up and running for your Guests and Staff. The LED lights help accomplish this troubleshooting step without requiring you or your staff to climb a ladder or gas up the bucket truck â˜º.

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WiFi Buying Tip #7 - Line of Sight

In Tip #6 we talked about finding a WiFi contractor who understands the importance of simplifying the troubleshooting process as much as possible should one of your access points go down for any reason. The example we used were the little, bright LED lights that come stock on all NomadISP Series V access points. With the lights, you can easily check from the ground whether the access point has power (green light), and, a stable Internet connection (blue light).

In this week's WiFi Buying Tip #7, we're talking about the importance of line of sight. If there's one constant, one rule, one make-sure-your-WiFi-contractor-gets-this concept, it's line of sight. No different than when you're trying to talk to a coworker in the office, or your hilarious in-law at this year's Christmas dinner, or that park Guest who's chasing you down to personally compliment you on running the best park he's ever seen in all his travels (wink), if you can physically SEE

the person you're talking to, the communication is almost always more effective. More clear.

The same is true with WiFi access points. Because they work by passing invisible radio waves back and forth, the less distance â€“ and less obstructions between the antennas â€“ the better. We call this "line of sight". Make sure your WiFi contractor understands the critical importance of line of sight when installing your access points across the property. Generally speaking, WiFi access points need to be at least 15-20' off the ground. Then, when up on the ladder at eye level with the unit, the Contractor should be able to physically see the other access point(s) near by... with few exceptions.

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WiFi Buying Tip #8 - Ways to Budget for a New WiFi System
In Tip #7 we talked about line of sight between access points and how it dramatically improves the overall Internet service to your Park Guests and Staff.

In Tip #8, we're talking about ways to budget for a new WiFi system in these lean economic times. Below are a few traditional ways â€“ and non-traditional ways â€“ to consider as means of funding a new, commercial-grade, professionally monitored and managed WiFi system running across your property:

1. Cash from reserves. (traditional)

2. Finance through your personal bank or the WiFi Provider's finance program if at a better interest rate. (traditional)

3. Cash via site rentals; bump your site rentals slightly and take the extra revenue and tuck it away in a bank CD or other savings vehicle that guarantees a rate of return. When you have enough money for the system, "pull the trigger". Note: many banks now offer CDs that allow you to withdraw your money early before the CD matures â€“ without penalty. (non-traditional)

4. Sell liquid assets that are of less importance or use than a new WiFi system on property. (non-traditional)

5. Hold a fund raiser with Park Guests (who are often the ones demanding better WiFi). For example, a park-wide yard sale or auction that draws members of the local community or near by town(s). Use proceeds from the sale to pay for the new system! (non-traditional).

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WiFi Buying Tip #9 - Broadband Sources
In Tip #8 we talked about both traditional and non-traditional ways to budget for a new, commercial-grade WiFi system to better service your Guests and Staff with reliable Internet connectivity.

In Tip #9, we're talking about broadband sources. In today's market, there's basically four main broadband sources to choose from. Once a broadband source is installed, your WiFi Provider will then distribute the signal wirelessly across your property(ies) for Guests and Staff to enjoy.

For your convenience, below are those broadband sources described in a short, plain-English style:

Cable or DSL (Terrestrial broadband): cable Internet is a form of broadband Internet access that uses the cable television infrastructure. Similarly, DSL uses existing telephone network infrastructure as its backbone. Both options offer some of the fastest, most reliable, and cost effective commercial broadband available. .

T1 Line: T1 lines are a higher-grade broadband source that works over existing telephone infrastructure (similar to DSL). T1's are regulated broadband services managed through Public Service Commissions (PSCs) in each state. While in most cases T1's are more reliable than Cable or DSL; they're typically the most expensive option as well (e.g. $400-600/month). To help offset the monthly cost of a T1 line, many Park Owners/Operators charge their Guests a nominal fee for Internet service.

WISP (Wireless Internet Service Provider): Depending on the provider, WISPs can be a reliable, cost-effective option in rural areas where cable or DSL won't reach. They work by sending a wireless Internet signal from one antenna several miles to another antenna on your property. It's a nice way to "stretch" a Cable, DSL, or T1 signal that physically stops short of your property.

Satellite: Satellite broadband is recommended as a last resort when all other options are not available. It typically costs a couple hundred dollars a month, is slower than the other broadband options, and include FAP (Fair Access Policies) that limit the amount of Internet your Staff and Guests can use in a given billing cycle.

When getting ready to install a new commercial WiFi system on your property(ies), or, replace an existing system, be sure your WiFi Provider understands the pros and cons of each broadband option, and, works with you to select the one that best meets your needs and budget.

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WiFi Buying Tip #10 - Choosing the Right Broadband Circuit
In Tip #9 we talked about four popular sources of broadband Internet available in today's market (Cable/DSL, T1 Lines, WISP, Satellite).

In Tip #10, we're talking about selecting "the right" broadband circuit for your property. The rule of thumb is to budget for a minimum 1.5 megabytes of broadband for every 100 sites needing service. There's some exceptions to this rule; but we've found that ratio pretty consistent over the years. So for example, if during the open/peak season your property services 300 sites, you'll need a minimum four-and-a-half megabyte broadband circuit (3 x 1.5 = 4.5) coming in to the property. If you can budget for more, do so. In the world of commercial Internet service, the more broadband the better.

A good way to think of this topic is like the hot water pipes that service the bath house. The larger the pipes, the more hot water that can travel through them to each Guest's shower stall (and the happier they'll be). The same is true with broadband Internet. The larger the circuit coming in to the property, the more data that can travel back and forth between your Guests'/Staffs' computers and the Internet (and the happier they'll be).

Note: a good WiFi Provider will help advise you on how much broadband you need, and, which type is best for your property and your budget.

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WiFi Buying Tip #11 - Read Your Tips

In Tip #10 we talked about selecting "the right" broadband circuit for your property. The rule of thumb is to budget for a minimum 1.5 megabytes of broadband for every 100 sites needing service.

Tip #11 is a reminder to read your tips (wink). We've made it easy for you by archiving all the WiFi Buying Tips in one convenient spot. Just visit nomadisp.com and click on the WiFi Buying Tips (second link from the top in the main menu).

As you might imagine, we've replaced dozens and dozens of "bad" systems over the years. While the Property Owners, Managers, and Directors have all had the greatest intentions to provide good WiFi to their park Guests, they simply made an uneducated investment that resulted in countless hours of troubleshooting a fragile system that should have never been installed in the first place. Meanwhile, Guests â€“ who literally depend on a good Internet connection for both personal and work-related needs â€“ grow increasingly upset. Some Guests never reserve at the park again just because of the bad WiFi.

Grandpa was right, what you don't know CAN hurt you. READ YOUR TIPS!

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WiFi Buying Tip #12 - 3G Broadband as a Replacement to Satellite
In Tip #11 we talked about the importance of reading all your buying tips. What you don't know can still hurt you â€“ especially in the ever-changing high-tech industry.

Tip #12 is a classic example of the above. Earlier this year (2009), NomadISP has successfully installed wireless Internet systems running off the third generation of tele standard for broadband wireless data. It's called "3G"; and you or someone you know likely has a cell phone that uses this wide-area cellular telephone network. With the right wireless-access-point technology, 3G can now be distributed to your staff and Guests instead of the more expensive â€“ and often less reliable â€“ satellite broadband.

Be sure your WiFi Provider has the technology â€“ and the know-how â€“ to distribute 3G broadband if/when available to your property's geographic location. It's a solid alternative to going tens of thousands of miles in to space (and back) for your property's Internet service.

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WiFi Buying Tip #13 - Choose a Provider Who Eats Their Own Dog Food
In Tip #12 we talked about the new 3G broadband spectrum as a bona fide replacement to satellite broadband. If you're wanting/needing to stop going thousands of miles in to space to get broadband for your property(ies), click here to review that tip.

Tip #13 is about making sure to select a Wireless Provider who â€“ as the expression goes â€“ "eats their own dog food". In other words, if your Provider doesn't use their own technology, how can they logically expect you to buy and use it. It's like the Ford car salesman who drives to work in a Chevy. That's not good practice.

At NomadISP, we supply our Idaho-based Sales and Support Center with Internet service by beaming wireless data over 900MHz, one half-mile across the lake. So, everyday when us Nomaders boot up our computers, we're "eating our own dog food".

No technology is perfect, and even our own wireless network can break on occasion. When that happens, we troubleshoot, debug, and fix our wireless network in the very same way that we troubleshoot, debug, and fix our Customers' networks.

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WiFi Buying Tip #14 - Choose a Provider Who Pays Attention to "The Trends"
In Tip #13 we talked about choosing a WiFi Provider who "eats their own dog food" (i.e. actually use the same technology they sell/support). If you missed that tip, click here to review.

Tip #14 is about choosing a Provider who pays attention to the trends in their field of expertise. For example, USA Today recently published an article titled From business to fun: What different generations do online. In the article, the journalist provides a detailed table showing how generations of Americans â€“ from ages 12 to 73+ â€“ use the Internet. As a WiFi Provider, this kind of research is highly important to us (and you). Here's why.

Did you know that 3 out of 10 "Older Boomers" (55-63), and, 2 out of 10 "Silent Generation" (64-72) now use the Internet to watch videos online. If you weren't aware already, streaming video online requires a lot more bandwidth than sending an eMail or booking a reservation at a campground/resort.

If your Provider is not aware of these trends, they'll likely install wireless access points without sufficient throughput capabilities (i.e. the amount of data that can pass back and forth between the Guest's computer and the Internet). Or worse, their access points won't be able to dynamically manage the throughput of each Guest (for more on this topic, see