Strike up the Bandwidth - How Much Do You Know about Bandwidth at Your Events?

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At some point in every hotel or convention center contract negotiation, there is a conversation regarding Internet access. Primarily, the dialogue involves providing access in sleeping and/or meeting rooms. More often than not, these negotiations work out to the satisfaction of both planner and supplier. Given the pace of technological change and consumer usage patterns, the concern is whether either side is properly equipped to ask the right questions to achieve desred outcomes.

What is Bandwidth?

Simply put, **bandwidth** describes the maximum data transfer rate of a network or Internet connection. It measures how much data can be sent over a specific connection in a given amount of time. Lots of data flowing through a narrow channel takes longer than the same amount of data flowing through a broader channel. In the meetings and events industry, more bandwidth means more people doing more things online at faster speeds. On the other hand, lack of adequate bandwidth can lead to slow loading web pages, video buffering and even disconnections. **Wireless (Wi-Fi)** is the technology that distributes the bandwidth around a venue to wireless devices like laptops, smartphones and tablets.

What does it mean to meeting professionals?

Planners know about the importance of event history and understanding projected needs such as food & beverage consumption, attendance numbers, etc., but many don't know how much bandwidth they use, how it is being used, and what level of service is required to satisfy these requirements.

Technology moves at an incredible pace. It is hard to believe that the first iPhone was released barely five years ago, that the Android platform debuted in 2008, and that the iPad has only been around since 2010. With these techie milestones, device adoption rates have skyrocketed along with increased consumer demand for better connectivity and faster access.

So, how does this affect the meetings industry? Awareness of issues like Wi-Fi and bandwidth requirements reflect not only advances in technology and usage, but also ongoing changes and maturation in the meetings profession and what we as meeting professionals need to know in order to meet the diverse and growing needs of our events and participants. The ways in which meeting content is delivered have advanced at equally rapid rates. Now, the hybrid meeting movement incorporates web-casting, streaming video, remote presentations, conference apps, social media, gamification, and much more to traditional meetings. Adding increased attendee demand to this content-provider need results in the necessity for a more detailed understanding of the ramifications of these usage shifts. Industry-wide clarity on the issue can only be achieved through an ongoing dialogue among all stakeholders. Bandwidth requirement is not just a "techie issue". It affects the entire global events industry and supply chain as a whole -- hotel/venue ownership, management, planner and attendee—everyone has a stake in this issue.

What you need to know

Know the attendee demand

• How many people, how tech savvy are they, and how do they access/use the Internet?

Are they basic web surfing users? Are they heavy social media users, live blogging and tweeting your event as it unfolds? Are they using Skype or FaceTime during your meeting? Are they streaming video content or downloading large handout files? Are they staying connected back at the office through corporate networks or VPNs? These all take different levels of bandwidth and understanding the usage patterns and habits of attendees will help the planner make informed buying decisions.

• How many and what types of devices will be used?

One attendee used to equal one or fewer devices, but in the age of smartphones, laptops, tablets, readers and other electronics one attendee can mean multiple devices. In addition to bandwidth consumption, attendee Wi-Fi usage can also create another bottleneck. If not anticipated, those multiple devices can overload the Wi-Fi network, leaving some attendees unable to connect.

Know the presenter requirements
Content is king, so planners should make sure they are aware of the Internet needs of content providers and facilitators. Will they be demonstrating basic web sites? Streaming video clips from YouTube or Vimeo? Will they be conducting live, online demonstrations, performing hands-on application training, or engaging in remote collaboration? Much like attendee needs, different uses require different levels of bandwidth.

Know about shared and dedicated bandwidth
Shared bandwidth is exactly that – a finite amount of bandwidth shared among any number of users. Depending on the venue, those users can be attendees, other guests, or completely different events. The more users on that shared bandwidth, the less available per individual user. Shared bandwidth is good for casual web access for attendees and for systems that are not critical to the operation of your event, but might not meet more stringent needs.

Dedicated bandwidth is set aside and guaranteed for your use. Planners and their technology partner can determine and control who has access. This insures that critical or bandwidth intensive systems have what they need. Dedicated bandwidth is recommended for very large events, presenter networks, hybrid meeting activities, and other systems that are critical to the operation of the event.

Know when not to share
As a **recommended best practice**, planners should always keep attendee bandwidth and access separate from the network used for event operations and systems like registration, presentation management systems, hybrid meeting efforts, backend file servers and staff networks. This helps ensure that these systems operate smoothly...and securely.

Know and verify what you get
Check the speed that is available against what has been promised. Verification sites like www.speedtest.net and www.speakeasy.net/speedtest provide a good starting point (although they are not perfect) to test your bandwidth.

Planners should ask their internet provider to deliver post-event reporting of how much bandwidth was used at peak times and throughout your event. This information is invaluable when planning for future events.

Know what's going on in your exhibit hall
If exhibitors are setting up their own private wireless networks in their booths you should be prepared for possible problems. Wireless networks are all based on radio signals that operate on a limited number of "channels". Too many wireless networks too close together can cause interference that can make those networks -- and the ones you provide to your attendees – unable to function. For many shows this might not be a problem, but if it is, the solution is not easy. Planners should talk with their service provider to find the solution that works best for their event.

Know the venue's capabilities before you book
Begin asking about the venue's network and capabilities during the site evaluation and selection process. The **APEX Event Bandwidth Workgroup** plans to develop additional site inspection tools, but here are some of the questions planners should be asking.

- How much bandwidth is available for events?
    - How is it managed?
- Who manages the venue's network?
- What's the age of the Wi-Fi system, and which of the Wi-Fi technologies does it support?
    - Can the venue partition and separate Wi-Fi?
- What are the options for dedicated bandwidth and networks?

Know what event apps are doing
What are the bandwidth requirements of the conference app? Does the app store schedules and other information in the app, or pull them from the Internet each time they're accessed? Does it use photo or video uploading? Is there gamification that requires check-ins, social media interaction, photo scavenger hunts, etc? The app provider should be able to estimate how much bandwidth can be required.

Wait, Don't Pull the Plug!
This might seem like a lot of information and an almost overwhelming list of new things to think about and manage. Don't "power down"! The good news is that no one is suggesting that we all try to become experts in bandwidth, networking and data transmission. The key objective is to raise awareness and impart some basic information and best practices planners and suppliers both need to consider when thinking about the events they plan, produce or host.

Like everything else in our industry, when buyers and sellers are well-informed and have all of the information needed for negotiation and decision making, the end results are better whether you're looking at attendee experience, customer satisfaction, return on investment or other measures.

More good news is that the **APEX Event Bandwidth Workgroup** is developing additional tools and resources to help you understand, plan for and manage bandwidth at events. Some, like the easy-to-use **Bandwidth Estimator** are already available. Others like a site evaluation checklist and glossary of important terms are in development. You can find all of these resources and much more that APEX has to offer at
http://www.conventionindustry.org/StandardsPractices/APEX/bandwidthconnectivity.aspx

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