



Trade Show Internet White Paper:

How to Discuss Your Event's WiFi Needs

- *A Primer for Event Planners*

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**Table of Contents**

**Executive Summary ..... 3**

**5 Steps to Assess Your Event’s WiFi Appetite ..... 4**

**Bandwidth Questions ..... 6**

**WiFi Coverage & Capacity ..... 7**

**Support ..... 8**

**Conclusion ..... 8**

## **How to Discuss Your Event's WiFi Needs**

### *A Primer for Event Planners*

#### **Executive Summary**

Today's events are more high-tech than ever before. With live video streaming, mobile apps, social media, ticket scanning, registration, virtual reality, credit card processing, demos, audience response, and email all competing for bandwidth, reliable Internet connectivity has become one of the top concerns at events. And with the popularity of Internet enabled phones, tablets, and other connected devices, it's not uncommon to see attendees using two or more WiFi-enabled devices at the same time.

Most modern hotels and convention centers have enterprise class bandwidth circuits and specialized indoor cellular and WiFi infrastructure purpose-built for large events. However, events which take place in unique venues and outdoor spaces can suffer from a lack of network infrastructure. If nearby cellular networks become congested, this can create frustration for attendees and business risk for the event promoter. For a high-tech event, poor connectivity can delay attendee registration, sink a keynote speech, and cripple an exhibitor demo, causing significant damage to the event's reputation.

Since cellular networks operate on licensed spectrum and often take years to deploy, many event planners turn to vendors who specialize in deploying temporary bandwidth and short-term WiFi infrastructure solutions.

Learning IT lingo can be a daunting proposition. However, with a little bit of education and planning, every event organizer can be prepared to have a productive conversation regarding their event's WiFi and Internet needs. To plan for this conversation, you must first consider your event's requirements.

## 5 Steps to Assess Your Event's WiFi Appetite

1. Start with your event's floor plan.
  - a. Where do you require Internet access? Registration? General session and breakouts? What about the exhibit hall, vendor areas, plus food and beverage stations? Back of house? Outdoor tents?
  - b. How will you provide Internet access in each area? Will you use a combination of wired ethernet drops and WiFi?

2. Determine the needs of all stakeholders.
  - a. Will the network be open to attendees and exhibitors? Will there be a separate network (i.e. Virtual Local Area Network or VLAN) for speakers and staff? Media? AV team?

*Having separate networks can ensure there is an appropriate amount of bandwidth for each stakeholder or group. The last thing you'd want is for your keynote presentation to be affected by a handful of exhibitors streaming HD movies.*

- b. What types of devices will your attendees bring to the event (phones, laptops, tablets)?
- c. What types of content will they consume on these devices (video, social media, email, mobile event apps)?

*Having this information will help determine the amount of bandwidth that is required to support your users.*

3. Determine usage needs according to your schedule.
  - a. How many setup days are there? Do you need staff connectivity during setup days?
  - b. Are there peak usage times when everyone will be accessing the network (during a keynote speech or tech training session)?

*A network designed for 1,000 casual users throughout the entire space looks very different than a network designed for 1,000 users in a concentrated room for a data intensive sales training seminar.*

- c. Does your room configuration change during the event? If so, how?

*Many meeting planners use a space allocation grid to track room scheduling, including dates/times of usage, and reconfigurations. Sharing this document with your IT vendor can be helpful.*

- 4. Define your on-site support expectations.
  - a. What level of support will you offer attendees (such as session speakers and exhibitors) if they have issues connecting to the network?

*Often times when a user is having issues connecting to the network, it is caused by a specific setting on their device. You need to determine if you want to dedicate resources to solving these general technical support inquiries.*

- b. Is there telephone technical support? Do you require a help desk staffed by a network engineer?
- 5. How will you pay for it?
  - a. Will you cover the cost of the network for all stakeholders?
  - b. Will you publish an order form and let exhibitors and vendors order based upon their individual needs?
  - c. Do you have a sponsor who will help offset the cost in exchange for sponsorship consideration and a branded WiFi splash page?

Next, it's time to ask your venue some detailed questions to determine if they can provide the **bandwidth, WiFi coverage and capacity**, and **support** required for your event. "We have WiFi" may suffice for your neighborhood coffee shop, but it's no longer a sufficient answer for most large events.

## Bandwidth Questions

1. How much dedicated bandwidth can be allocated for the event's network?

*Dedicated bandwidth isn't shared with any other users or groups during your event, so the speeds are consistent. This is in contrast to shared bandwidth in which your speeds vary depending on the usage of other parties on the network, over whom you have no control.*

*Bandwidth is measured in Mbps (megabits per second or "Megs") or Gbps (gigabits per second or "Gigs"). For more information regarding bandwidth and ways to determine the appropriate amount of bandwidth for your needs, please visit the [Bandwidth Calculator page](#) on our website.*

2. Is the bandwidth symmetrical (same upload and download speed)?

*Typically, people are consuming content (downloading) more than they are pushing content (uploading), so asymmetry in speeds isn't always an issue. That said, if you are providing a network for attendees to live stream the event in an attempt to create buzz, knowing what your upload speeds are (and confirming that they will be sufficient) is paramount.*

3. Which telecom carriers are providing the bandwidth?

Not all ISPs are created equal. Cellular carriers and many brand name, consumer-oriented ISPs focus on residential subscribers, selling shared (or contended) bandwidth circuits with asymmetrical download and upload speeds. Other ISPs focus on commercial or enterprise clients, offering dedicated bandwidth circuits with guaranteed and usually symmetrical download and upload speeds. If having a reliable network is mission critical to the success of your event, make sure you order a dedicated bandwidth circuit from an ISP who serves commercial/enterprise customers.

4. Is there any redundancy in place if the primary bandwidth circuit goes down? What is the fail-over plan?
5. Can bandwidth be allocated using separate VLANs (networks) for attendees, exhibitors, speakers, and staff?

### **WiFi Coverage & Capacity**

1. How many WiFi access points (APs) are currently installed in the event space?
2. Which rooms/areas are covered and how many devices can be connected in each room/area?
3. What is the minimum WiFi signal strength available in each room?

*Signal strength can be determined during a wireless site survey and is measured at the user device. Signal level is measured in decibels per milliwatt, or dBm. Your venue should be able to provide a signal level of -65 dBm for a good signal quality in each room (higher is better, i.e. -55 is better than -65). When talking about WiFi signal quality, avoid using the “4 bars” scale as there is no standard definition for what each bar represents.*



4. Do the APs broadcast on both the 2.4 and 5 GHz WiFi spectrums?

*As background, 2.4 GHz has 3 non-overlapping channels, whereas 5 GHz has 24 non-overlapping channels and much greater capacity. All WiFi devices support 2.4 GHz, but most newer devices support both 2.4 GHz and 5 GHz. A properly planned WiFi network will utilize a thoughtful channel plan, taking advantage of available channels on both 2.4 and 5 GHz.*

## Support

1. Who installed the network infrastructure and who maintains it?

*All other things equal, it is preferable for the people maintaining the network to be the ones who initially installed the network.*

2. Will there be a network engineer on-site during event hours to provide support?
  - a. If so, is this person capable of making real-time changes to the network if needed? How will the network be actively managed? What rules will be applied to throttle users and mitigate security threats?
  - b. If not, how is remote support provided? By phone? Email? What is an acceptable response time if on-site support is required?
3. Is there a service level guarantee in the contract? If so, what are the terms?
4. Is there spare equipment on hand for real-time replacement if something goes down?

## Conclusion

Your IT vendor should be able to articulate answers to the above questions in a way that instills confidence. With the reputation of your event at stake, asking the right questions early on in the planning process and having a knowledgeable team on your side will help ensure you receive the best possible network to achieve your event's goals.