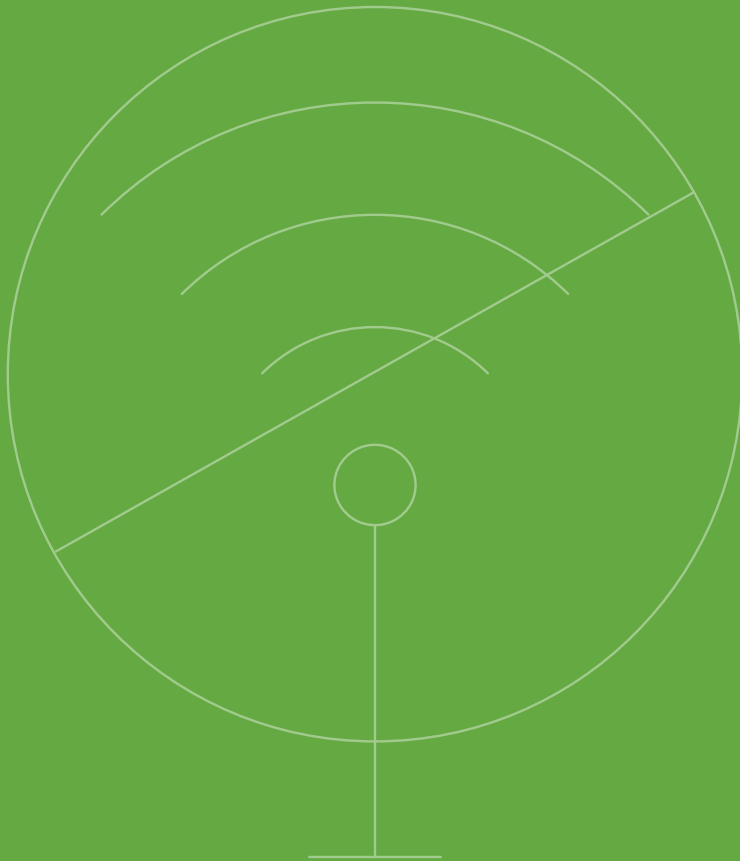# from bandwidth to security

Things to Consider When Providing Internet Access at Events

Imagine an event where smartphones, tablets, laptops, and every other internet device is banned. Crazy, right?

Yet that's essentially the unintended result when event organizers don't make sure the venue has Wi-Fi service that's fast, reliable, and everywhere.

Poor Internet service can be a surprisingly common problem if it's not managed by experts who understand the challenges involved. This can, in turn, affect numerous other aspects of the event experience, like cybersecurity, mobile app usage, and attendee satisfaction.

The good news? There are plenty of options to ensure that attendees, exhibitors, presenters, sponsors, and staff can seamlessly access fast, reliable, and secure broadband.

planning ahead to ensure a great experience

Start by thinking ahead: attendees, exhibitors, presenters, and others typically show up at events carrying two, sometimes even three, devices — smartphones, tablets, laptops, and more. In fact, the average person owns 3.64 connected devices.[1] Not only that, but they arrive expecting broadband to be stable, speedy, and available throughout the venue.

That's why it's so important that the facility's network is able to deliver. It is critical to get up to speed on the technological nuances surrounding network options and risks, know what questions to ask, what to require in contracts, and what pitfalls to avoid.

[1] Buckle, Chase. "Digital consumers own 3.64 connected devices," GlobalWebIndex.net.

setting yourself up for success

It all starts with the fine print. The contract between the event organizer and the venue is critical for setting the expectations of attendees, exhibitors, and presenters. Before you sign, it's most important to confirm that the venue's service provider has the capacity to provide reliable coverage for all devices. It also helps to have Wi-Fi access points blanketing every breakout room, hallway, and ballroom, but capacity matters more than coverage.

To ensure the venue's services meet your needs, it's important to get input from across the organization to help identify every need and opportunity up front.

The opportunities don't end at ensuring bandwidth access, however. By contracting shared Wi-Fi network analytics with the venue, teams can use that data to analyze attendance and booth traffic, and use that information to optimize future events.

determining your bandwidth needs

The contract should also specify how much bandwidth will be available — not just from the Wi-Fi network, but also from the telecom service provider that connects that network to the Internet. Otherwise, one of those networks may become a bottleneck. Make sure that there is an entire circuit dedicated to the event network and that you're not just seeing the total circuit capability shared for the entire property, including guest rooms, restaurants, and other public areas.

How much is enough? There are several ways to determine how much bandwidth an event will require:
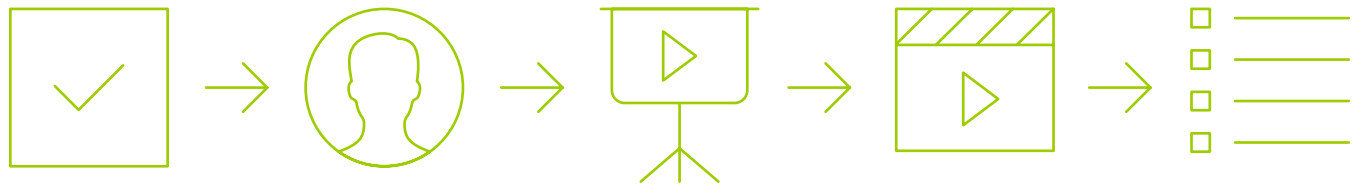
Identify the applications and services you'll provide. Think about an event where you're using a mobile app for wayfinding, social media contests, and post-session online surveys. You'll need to make sure you have bandwidth to cover all that and more. If the app and other services use video, such as livestreaming, factor that into the bandwidth budget.

Consider the demographics. Keep in mind that if many attendees and exhibitors using mobile devices are from foreign countries, they'll use Wi-Fi more heavily than locals because they want to avoid excessive cellular roaming charges.
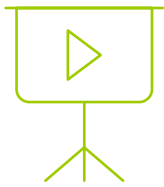
Survey exhibitors and presenters about their plans. Make sure you factor in exhibitors and presenters. Will they be pulling content from the cloud for demos and speeches? What kind of content — just presentations, or HD video too? Are they planning to livestream? Knowing this information up front, or implementing guidelines of what they can and cannot do, can help you plan accordingly.
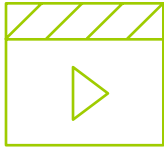
Don't forget media and analysts. Mainstream and trade publications, as well as analysts, are increasingly using video to cover events with content like on-the-floor interviews and livestreaming sessions. The easier it is for them to upload those videos or stream them live, the more coverage your event will get, which is the kind of press that helps future registration and even current engagement. On the event's media/analyst registration web page, consider asking about their plans to use video and any other bandwidth-intensive applications.

Start analyzing ASAP. Track bandwidth use at this year's event so you can start building a database to more accurately model future shows and show trending data from event to event.

Determining how much bandwidth your event will need is key to ensuring there's enough budget to pay for it. Event organizers often are surprised by the cost of providing ample bandwidth, but that doesn't have to be the case. Talk to all departments to help identify sponsorship opportunities, such as charging a fee for an exhibitor getting their logo on the Wi-Fi registration splash page.

focusing on quality

An event's Internet Quality of Service (QoS) goes well beyond speed. Digital investments, including apps with event-specific tools, such as wayfinding, rely on solid connectivity to deliver great user experiences. Without it, user engagement — and the app's ROI — can plummet. And if you have hotspot sponsors, you'll hear about it from them too.

Many factors can undermine QoS. Wireless microphones, Bluetooth devices, remote speakers, video game controllers, and even other hotspots can interfere with the venue's Wi-Fi network. By surveying exhibitors about the technology they plan to leverage and display in their booths, as well as any other devices used throughout the event, you can proactively manage any potential Wi-Fi conflicts. It also may be worth considering exhibitor contracts that ban the use of hotspots and other devices that interfere with Wi-Fi.

Channel balancing is another important consideration — and one that highlights the importance of making sure that Internet capabilities are clearly spelled out in the venue contract. Due to FCC limitations, wired connections should be considered for 2.4Ghz wireless devices that are not capable of 5Ghz, or where 5Ghz Wi-Fi is unavailable.

Additional options to consider include:

- **Partitioning the network into virtual local area networks (VLANs).** These ensure that certain users/user types get priority, such as keynote speakers or exhibitor credit card terminals.

- **Implementing tools for verifying venue contract service-level agreements (SLAs) and addressing exhibitor concerns.** Tools like Wi-Fi access point heat maps can verify Wi-Fi coverage and capacity prior to the event. You can also test to determine whether slow connections are due to the Wi-Fi network or an exhibitor's overloaded server.

- **Getting a backup circuit provider.** Is Internet service mission critical to the event? Then make sure there's service provider redundancy — and not just one that resells the service from the venue's primary provider. All that gets you is two apologies in the event of an outage.
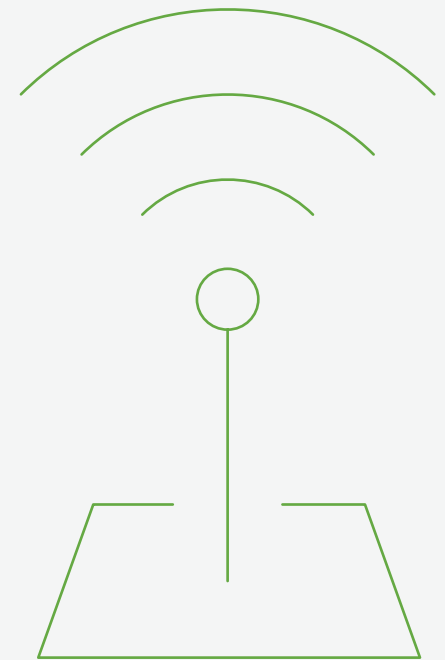
getting serious with security
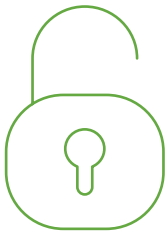
Poor QoS also creates security risks, such as registration staff getting frustrated to the point that they set up an unsecured, open smartphone hotspot. A hacker could eavesdrop on those links to harvest registrant information. Last year, ConsumerAffairs reported that one vulnerability allowed hackers to breach Wi-Fi networks at 277 venues, including hotels and convention centers.[2]

Events collect a lot of data, so safeguarding that data must be of the highest priority. For starters, policies that apply to office data and devices should extend to events, too. But also be aware that many policies that are enforceable in the office might not be practical at the event venue, such as blocking certain ports.

2 Abel, Jennifer. "Hackers breach public Wi-Fi at multiple hotels and convention centers," ConsumerAffairs.com.
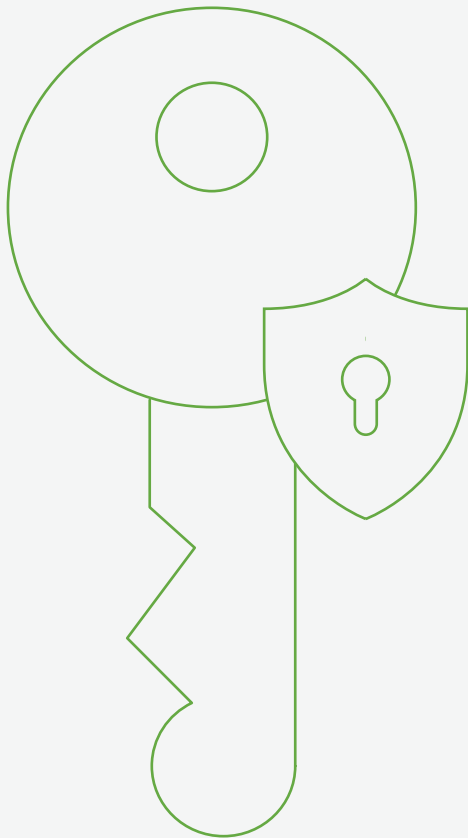
Some additional tips:

- The VLANs used to improve QoS can be an effective way to wall off confidential traffic.

- Require that staff use a virtual private network (VPN) for uploading and downloading confidential data, and recommend that exhibitors do the same to keep key information secure.

- Make sure all laptops and other employee devices have the most up-to-date software, security, and other patches installed before they go. Remind exhibitors and presenters to do the same.

- Block BitTorrent and similar applications. Besides saving bandwidth, this strategy also thwarts bots that duplicate your IP to get a back door into the network.

- Safeguard the Wi-Fi network's service set identifiers (SSIDs). For example, password-protect them, and provide the SSIDs only at the venue rather than on the event's website. Consider going a step further by providing SSIDs only in badged areas rather than public spaces, such as the venue's lobbies.

- Consider having one or more IT staff members on-site, or at least readily available, to assist employees and presenters who encounter IT issues.

- Don't have the budget for on-site IT experts? Consider creating a help desk sponsorship opportunity.
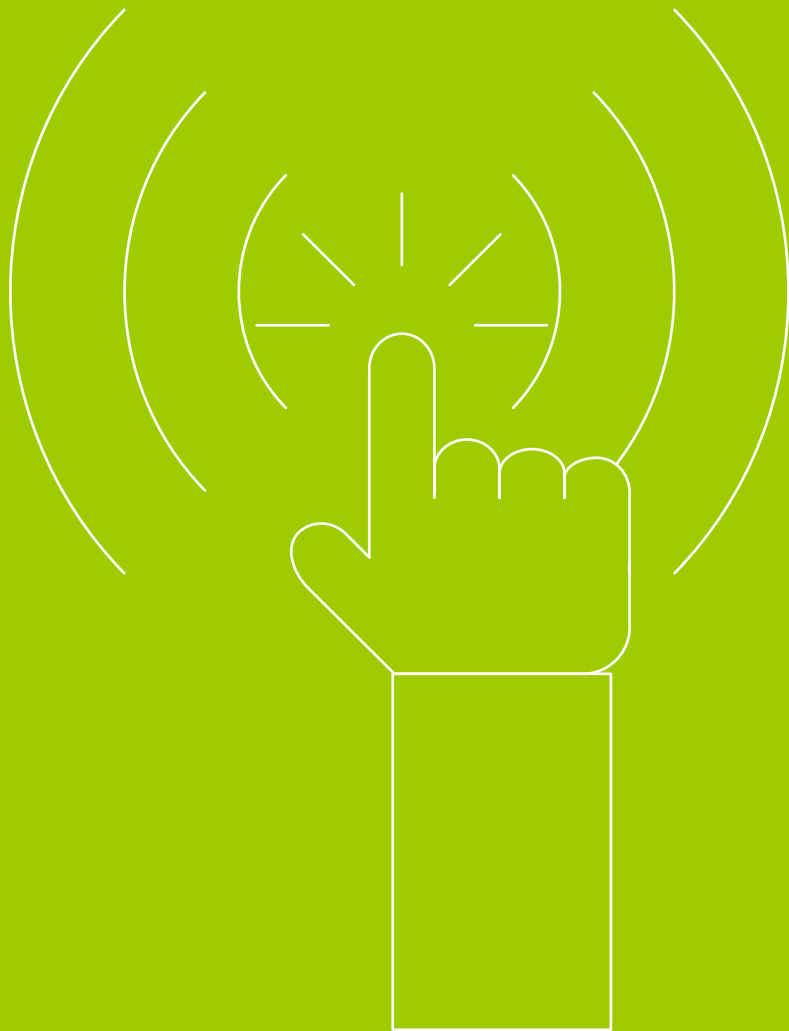
meeting attendee needs with solid connectivity

In the modern event experience, attendees expect the same level of connectivity they're used to in everyday life — and they expect that experience to be secure. So it's imperative that you balance QoS along with data security to keep people's confidence in the event's safeguards to ensure the continued presence and involvement of exhibitors, sponsors, attendees, and others.

With the right plans, contracts, and safeguards in place, it's easy to deliver connectivity that's fast, secure, and seamless — all while keeping up with the expectations of today's digitally driven event attendees.

stay secure

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