

CALCULATING BANDWIDTH FOR MEETING AND EVENT PLANNERS

Every event or meeting you attend today will include some sort of digital event technology. Whether it be an event app, webcasting, live polling, social media integration or even just access to Wi-Fi for access to the internet and emails. As event planners look for new ways to collect invaluable data whilst providing attendees with a more dynamic, personalised experience, this inclusion of event technology is only going to increase. With this increase in event technology adoption comes the added pressure of venues to supply enough bandwidth to facilitate the mass usage.

The cost for Internet bandwidth varies between venues so remember to allocate some of your event budget and discuss the rates during your meetings with potential venue partners. The purpose of this paper is to equip you with enough knowledge to estimate how much bandwidth your event requires so you understand how much you'll need and how much of your budget that will consume. It could be the deciding factor for which venue you choose, depending on your event's priorities. The last thing you want is for your guests to have a bad experience because the internet wasn't working.

WHAT IS BANDWIDTH AND WI-FI?

Bandwidth: The amount of data that can be transmitted (upload) or received (download) per second measured in Megabits per second.

Wi-Fi: The technology that distributes the Bandwidth around a venue to wireless devices like laptops, computers, smartphones and tablets.

APEX Bandwidth and Connectivity Workgroup of the Convention Industry Council (CIC)

HOW BANDWIDTH CAN AFFECT YOUR MEETINGS AND EVENTS WHETHER LARGE OR SMALL

Bandwidth allocation determines how many people and devices can access the internet, what types of technology you can use (streaming vs basic surfing), and how frequently. It is based on the minimum amount of megabytes required to ensure all the known users, on an estimated amount of devices, can have an undisrupted internet viewing experience fit for purpose. Below are some event examples of how bandwidth can affect your meeting and events, regardless of size:

- Bandwidth determines how many devices - smartphones, tablets, laptops, live polling systems, etc. - can be used at the same time within the venue, without connection interference.

- The amount of bandwidth can determine connection quality, which is particularly important for streaming video presentations. Not enough bandwidth could mean your video image or audio gets played distorted or experiences a delay in playback.
- Bandwidth can limit the type, size and quality of documents and presentations you wish to use in your event. If a speaker's presentation file size is too large it might take too long to upload or download.
- If you are hosting an online or hybrid event with widely spread audiences, bandwidth can dictate whether they will have smooth viewing experience or not.
- It will control exhibitor presentations in their booths and the applications they use.
- Even all on site office and event organising teams require internet access to manage the event.

NB: It's important to remember the type of usage plays more emphasis on bandwidth exhaustion than the number of users or devices. This means event planners need to consider the type of usage by attendees even for small meetings especially if it's being webcast.

There is nothing more frustrating than a website crashing, or seeing the spinning wheel of death as the video buffers. Rather than sit patiently and wait, your viewers or attendees are likely to abandon this and move onto something else. Therefore it's vital you ensure there will be enough bandwidth on rehearsal and show day to accommodate your event. It can make or break your attendees' event experience. Naturally, if you don't intend on using any internet-reliant activities (live polling, event apps, web surfing etc) or your attendees aren't concerned with accessing the internet during your event, than you needn't be concerned with bandwidth availability.

HOW TO ESTIMATE HOW MUCH BANDWIDTH YOU'LL NEED FOR YOUR MEETING OR EVENT

Nowadays, it is an expectation to have internet access at all times and in all places including your event! However, this is not always as easy to arrange as it sounds. Below is a simple three step process to help you estimate how much internet bandwidth you'll need:

1. Determine how many attendees will be using the internet at your event and how many total devices they'll be using.

It is common for venues to charge per device instead of number of users.

2. Assess what your participants will be using the internet for.

Is it just so that delegates can check their e-mails? Or will you be webcasting the event to online audience's and will need to send through live video and audio? Event tweeting or posting on Instagram uses a small amount of bandwidth. This is usually categorised into Low, Medium or High usage.

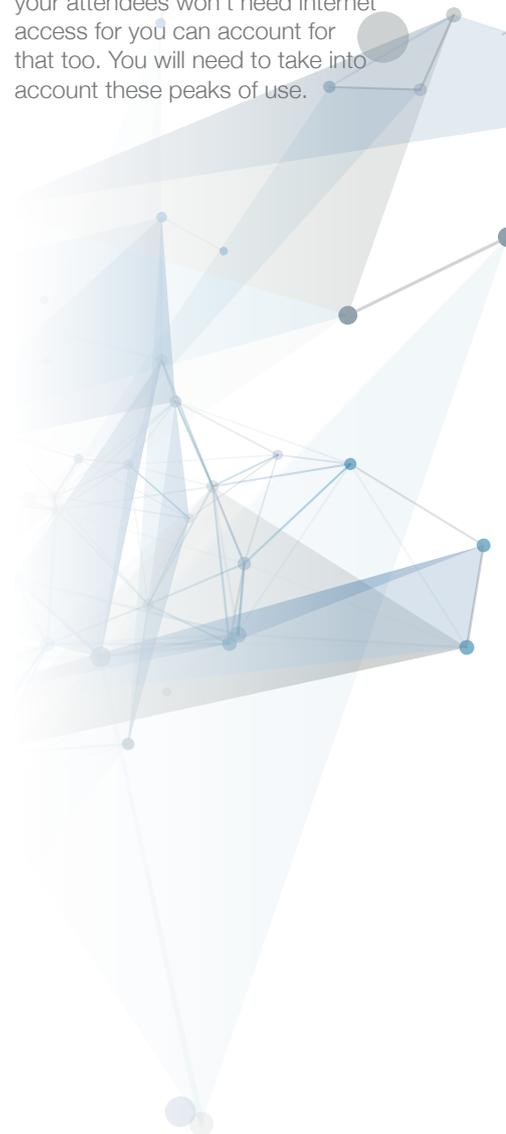
Low – Emailing, social media, basic web surfing

Medium - Skype, Audio streaming, web applications, Event apps and audience response systems.

High – Webcasting, Large file transfers

3. Use your programme to determine when the peak usage will be.

If your programme requires all people to sign in via digital registration before 9am and you have an event app with the event's agenda you can assume you will need to allow more bandwidth for the morning. If you have a workshop for 4 hours in the afternoon which your attendees won't need internet access for you can account for that too. You will need to take into account these peaks of use.





USERS +

Number of users



TYPE +

Low, medium or high usage



DEVICES =

Number of devices per user



BANDWIDTH

Total bandwidth recommended

NUMBER OF USERS	TYPE OF USAGE	BANDWIDTH ESTIMATION	
		MULTIPLE DEVICES PP	SINGLE DEVICE PP
10	Low	2 Mb/s	1 Mb/s
	Medium	2 Mb/s	2 Mb/s
	High	4 Mb/s	3 Mb/s
50	Low	4 Mb/s	3Mb/s
	Medium	6 Mb/s	5 Mb/s
	High	12 Mb/s	9 Mb/s
100	Low	6 Mb/s	5 Mb/s
	Medium	11 Mb/s	9 Mb/s
	High	22 Mb/s	17 Mb/s
300	Low	16 Mb/s	13 Mb/s
	Medium	31 Mb/s	25 Mb/s
	High	58 Mb/s	46 MB/s
500	Low	26 Mb/s	21 Mb/s
	Medium	51 Mb/s	41 Mb/s
	High	89 Mb/s	71 MB/s
1000	Low	51 Mb/s	41 Mb/s
	Medium	101 Mb/s	81 Mb/s
	High	145 Mb/s	116 Mb/s

NOTES

Low usage type: Email and basic web surfing
 Medium usage type: Using web applications, audio streaming, skype
 High usage type: Large file transfers, webcasting



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QUESTIONS TO ASK YOUR VENUE ABOUT DEDICATED BANDWIDTH

If you want to give all of your event attendees, including staff and presenters, the best internet experience we recommend opting for a dedicated bandwidth. As it sounds, dedicated bandwidth means the venue will reserve your bandwidth allocation so no matter what other users may be doing, your event will have access to unshared bandwidth. Whilst dedicated bandwidth provides a more reliable, faster experience, it is more expensive. We recommend speaking with your venue's IT or conferencing team to determine what type of bandwidth you'll need and whether dedicated bandwidth is necessary. If you do require dedicated bandwidth, below are some key questions should ask your venue:

- Does the venue have the necessary infrastructure to bring in dedicated bandwidth?
- Is there on-site IT or perhaps AV support to help configure and troubleshoot these services?
- Does the venue have large enough cabling to meet your total bandwidth needs so even all users at usage peaks will have a good internet experience?
- Does your venue have the ability to set-up sub-separate networks (VLANs-Virtual Local Area Network) if your event requires it? Venues without an on-site IT technician make answering these questions more time consuming task as you'll need to speak with an event IT company and possibly even arrange an on-site visit. This can be very costly so keep this in mind when choosing your venue.

HOW DO VENUES CHARGE FOR BANDWIDTH / INTERNET USAGE

Typically venues will have a schedule of pricing for number of attendees x level of bandwidth required. Ask the venue for their rate card.

HELPFUL TIPS FOR MANAGING YOUR BANDWIDTH USAGE

1. Save on bandwidth with a proxy server for popular pages. When the participants at your event are often likely to be looking at the same internet page – for example, the programme of the day on the event website you can save on broadband use by installing a proxy server in your network. This allows you to save the pages that are surfed by the participants for a limited period of time. If another person wants to look at the same page within, say, the next ten minutes, this person does not need to access your network; instead the page in question will be uploaded from the local cache on the proxy server.
2. Allow for bandwidth for your rehearsals. Often large events will have a full rehearsal the day before the event to run from start to end just like it's show day. If you intend on testing your webcasting, applications, live polling etc we recommend definitely allowing for this additional day of bandwidth.
3. If you plan on webcasting it is all about sufficient upload bandwidth with pre tested IP-addresses. Basically the equipment used must be registered with the internet supplier to create a dedicated internet connection separate to the bandwidth being used by the attendees.

MAKE USE OF THE LATEST EVENT TECHNOLOGIES AT YOUR EVENT

Find new ways to excite, inspire and connect your attendees to your brand new product.

Our range of digital services allows immediate engagement with your audience, providing an inclusive atmosphere for your guests and interactive ways to gather feedback from your conference or meeting. With the latest event technology at our fingertips we have the solutions to take your event where it needs to go.

- Webcast your event to reach a global audience,
- Amplify your content via social media for events,
- Record and stream your event for later use, or to widen your reach,
- Interact with your attendees via live audience polling, or
- House all of your event related material on a free event app.

By incorporating the latest event technology, your conference, incentive, gala dinner or exhibition attendees will benefit from the latest variety of interactive communications, bringing you and your guests closer.

MORE INFO

Speak to your local Encore representative or get in touch by emailing info@encore-anzpac.com or call **1800 209 099 (AU)** or **+64 9 259 0025 (NZ)**.