



Event WiFi Guide

IMPORTANT UPDATE ON OLDER APPLE iPad Devices: 08-November-2023

If the venue's network has been upgraded to use **WPA3 security protocols**, this is not compatible with older Apple devices using a legacy version of the iOS operating system. This will prevent the device from connecting to the network. Older devices should work fine with WPA2 or older security.

Three Recommendations:

1. **Contact the venue as far in advance as possible** to determine what may be required to enable your tablets to connect to the Internet
2. **Confirm the venue's WiFi network is using WPA2** security protocols or has been upgraded to WPA3 or newer *
3. If they use WPA3 or newer, **ask the venue if they can "downgrade the network to WPA2"** to allow your older devices to connect

*** Note:** Your venue contact may not be able to answer these questions and may not give you a correct answer. Make sure that confirmation comes from the venue's IT manager or service provider to ensure you get the most accurate information and avoid unwanted surprises when you arrive onsite.

**SHARE this document with your venue contact
when reviewing WiFi Network requirements for your event.**

Reliable WiFi is ESSENTIAL for the success of any DartConnect-powered tournament. The scoring app and Digital Steel do not require the fastest network, but they must not compete for bandwidth with non-tournament devices. A crowded network will bottleneck both match assignments and result reporting.

Follow this guide to understand the basic requirements for making sure your event venue has an adequate WiFi network and that you are prepared with an internet backup plan.

If you are using a large venue such as a hotel or meeting center, see the section below: **"How to Talk to Venue Network Administrators."**

Top Three Best Practices

1. **Private Network Access for Scoring Tablets** - DartConnect's #1 recommendation is to secure a dedicated, password-protected network reserved exclusively for tournament devices. It should not be accessible for public use or shared with any video/media streaming.
2. **Control Desk Hard-Wire Connection** - While not required, the control desk PC is the "hub" of the event that requires 2-way communication with every tablet. An ethernet cable avoids consuming bandwidth on the WiFi network while ensuring maximum reliability
3. **Control Desk Hotspot Backup** - Regardless of your setup, always have a cell phone or hotspot device for control desk devices. Should the network become overwhelmed or simply fail, this will be your lifeline until the situation is resolved. Be prepared.

Protect Your Network!

DO NOT SHARE the network password with anyone, including staff. This may appear harsh, however, if everyone shares the password "just once", a network will eventually become overwhelmed with YouTube, sports streaming and social media. *"Loose lips, sink ships."*

'Are you Live Streaming or Having a Media Channel?

If you are live streaming your tournament or uploading large media files, that traffic should be on a separate channel. By comparison, DartConnect traffic contains very small files. But a traffic jam is a traffic jam. Don't mix these two requirements on the same channel.

Network Speeds

DartConnect does not require the fastest network speeds for acceptable performance. In general, we recommend minimum speeds of at least 10+ Mbps for upload and download, however, smaller events can succeed with slower speeds. **A much higher priority** is securing a dedicated network that is not shared with the public or live streaming service.

Can I Run My Tournament with Hotspots Only?

Depending on the size of your tournament, this may be feasible using cell phones and/or separate devices as long as you are aware of the tradeoffs and limitations. Hot Spots typically have a maximum number of devices they can support, requiring multiple hotspots to cover all of your boards and control desk. Hot Spots also have a shorter range than WiFi routers and therefore must be located close to the devices they support. Make sure these devices are plugged in - they often have short battery life.

Hot Spots are a great solution for augmenting an existing WiFi network, such as remote areas with weak signal strength or for isolating control desk devices. Note that cost can be a factor and you should consult with your cellular provider regarding applicable data charges.

What Happens if WiFi Goes Out?

Don't panic! While uncommon, WiFi can fail, just like electricity or air conditioning. DartConnect has been designed so that you may continue your event in the absence of network communication.

- **The scoring app works offline** - As long as the app is logged in, tablets used for scorekeeping do not need a live Internet connection. Matches played "offline" will update their results when the service returns. In the most extreme situation, matches can be created manually on the device or even played as Home and Away.
- **Control-Desk Only** - With a Hot Spot backup connection, the control desk can continue to update the bracket, but players must manually report match results.
- **Backup Printing** - When creating competitions, make sure you use the backup printing option (or save as a .pdf file) for manual results recording if the control desk cannot be connected to the Internet.
- **DCTV Match Center** - If you cannot access the bracket program, but can still access DCTV, you will be able to reconstruct the bracket based on completed match results.

How to Talk to Venue Network Administrators

This section is primarily for larger events utilizing hotels and halls that employ a commercial WiFi system.

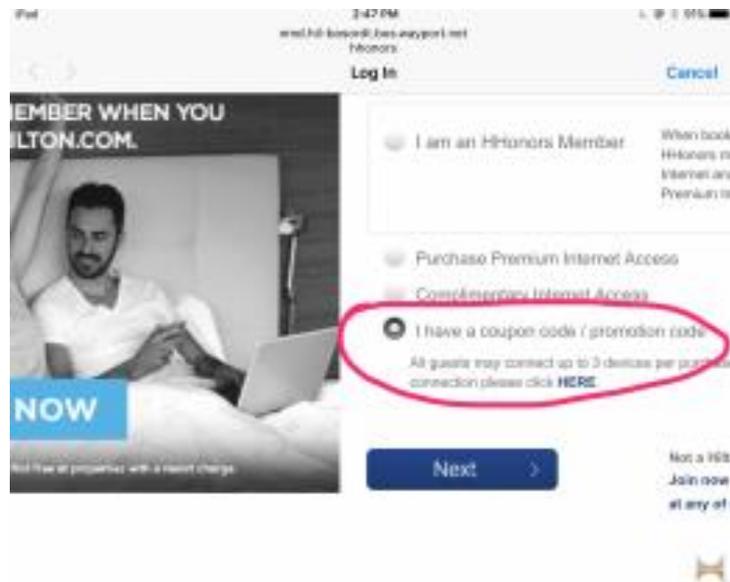
General Questions To Ask:

1. Can the venue set up a separate, private, password-protected network?
2. Can the event access the internet with an ethernet cable?
3. How much do each of these options cost?

Often these options are included in the overall agreement - if they are negotiated BEFORE the contract is signed.

Network-Specific Questions:

1. What is the limit on the number of connected devices?
2. Is there a time limit for how long a device can remain on the network before the device requires a new login?
3. **If there is a time limit** (often 24 hours):
 1. What is the optimal time to log into tablets to ensure they do not go offline during the competition?
 2. When they do go offline, is there a waiting period before the device can access the network again?
 3. After a competition is complete, can tablets be logged out of the network, resetting the time limit clock, so it starts over the next day?



Lessons From the Real World

Be aware: Venue staff will often claim knowledge of how their network operates, with statements like “*we have large events all the time and never have issues.*” Make sure you ask specifics to gauge their technical understanding. Better yet, insist that you talk to technical support, often a third-party vendor. Best to get your answers in writing (email) and, if possible, agree to performance standards in advance.

Common Issues with Commercial WiFi

Service Interruptions - Large public WiFi networks often have redundant safety features built in to ensure the network is not overwhelmed, or “committed” to devices that are “idle”. If the venue cannot provide a network free of these “controls”, be prepared to have to reset the tablets every morning.

Log-in “Time Outs” - Some commercial networks may automatically disconnect your device after a period of time (often 24 hours), requiring you to re-login all devices. Many venues with this “feature” often fail to inform customers that this could occur, and their staff may not even be aware of it when asked.

This can confuse both players and staff and cause multiple issues, including:

- New matches do not appear on the tablet and match results are not reported back to the control desk
- The tablet will “appear” as if it has a live Internet connection. This is because it IS connected to the venue’s WiFi, however access to the internet is blocked.
 - Only by completely disconnecting from the network and re-starting from the hotel’s custom log-in gateway will you be able to fully reconnect

- Depending on what time you first logged into each device, the logout will begin to cascade across all devices, potentially occurring during peak playing time.

To learn more about troubleshooting Hotel/Venue WiFi, refer to the tablet/player support guide.
(Coming Soon)