

FUNKYGENE

INTERNET TESTING FOR RELIABLE STREAMS

A fast field guide for checking whether your connection is ready before your audience finds out it is not.

THE BIG IDEA

A fast speed test does not automatically mean a reliable stream. Streaming needs consistent upload performance over time. Test the connection you will actually use, in the place and conditions where you will actually broadcast.

1. TEST THE RIGHT CONNECTION

- **Prefer wired Ethernet when practical.** It removes many of the variables introduced by Wi-Fi.
- If you must use Wi-Fi, test from the exact streaming position - not beside the router.
- For cellular or satellite connections, test at the actual location and at a similar time of day when possible.
- Disconnect from unused networks so you know which connection your streaming computer is actually using.

2. LOOK BEYOND DOWNLOAD SPEED

Measurement	Why it matters
Upload	Your stream is sending video out. Upload capacity matters more than a huge download number.
Consistency	A connection that swings wildly can cause trouble even if its best result looks impressive.
Latency	High delay can affect interactive workflows, remote guests and control systems.
Packet loss / instability	Missing or delayed data can show up as dropped frames, buffering or degraded contribution feeds.

3. LEAVE HEADROOM

Do not design a stream that requires nearly everything the connection produced during one good speed test. Other devices, network congestion, signal changes and normal fluctuations can reduce available capacity.

- Choose stream settings that leave comfortable room for the connection to fluctuate.
- Remember that cloud backups, software updates, security cameras, guest Wi-Fi and other users may also consume bandwidth.
- If the stream is important, test while the network is being used normally rather than under unrealistically perfect conditions.

4. RUN A REAL STREAM TEST

- When possible, create a private or unlisted test broadcast.
- Run it long enough to reveal intermittent problems - not just for 30 seconds.
- Watch OBS statistics for dropped frames or connection warnings.
- Watch the outgoing stream on another device and listen for interruptions.
- For an event, repeat the test after cameras, crew, guests and other network users are present.

5. WI-FI: REDUCE THE VARIABLES

- Keep the streaming device close enough to the access point for a strong, stable connection.
- Avoid unnecessary walls, crowds and physical obstructions between the device and access point when possible.
- Do not assume venue or hotel Wi-Fi will behave the same once hundreds of people arrive.
- If Wi-Fi is mission-critical, treat network design as part of production planning rather than an afterthought.

6. OUTDOOR & REMOTE STREAMS

Remote productions add variables that do not exist in a bedroom or studio. Cellular congestion, terrain, weather, satellite visibility, power and distance between production positions can all affect the plan.

- Test each production position separately.
- Check power and connectivity together - a perfect connection is useless when the router or modem loses power.
- Protect network equipment from weather and heat.
- Know which feeds are essential and which can be sacrificed if bandwidth becomes limited.
- For important productions, plan a secondary path instead of assuming the primary connection cannot fail.

7. QUICK TROUBLESHOOTING ORDER

Dropped frames: Confirm whether OBS identifies a network problem, then check the physical connection, network load and service stability.

Speed suddenly falls: Check whether another device or process is consuming bandwidth before changing stream settings.

Wi-Fi looks strong but stream is unstable: Signal bars do not tell the whole story. Test sustained performance and try Ethernet when available.

Remote location becomes unreliable: Check power, modem/router status, signal/visibility, congestion and backup connectivity in a consistent order.

THE 5-MINUTE CONNECTION CHECK

- Confirm the computer is using the intended network.
- Run more than one connection test and compare results.
- Close or pause unnecessary bandwidth-heavy apps and devices.
- Start a private/unlisted test stream when possible.
- Watch OBS statistics and the viewer-side stream.
- Confirm your backup connection and power plan if the broadcast matters.

WHERE NETWORK ENGINEERING STARTS

Multi-camera remote production, SRT contribution, Starlink, cellular backup, failover routers and multiple simultaneous feeds require more than a speed test. Bandwidth allocation, routing, redundancy and recovery should be designed around the specific production.

DON'T LET YOUR INTERNET BE THE WEAKEST LINK.

FUNKYGENE can evaluate your location, streaming computer, network and production needs, then design a connection strategy with practical backup options before you go live.