



YOU HAVE FAST FIBRE. WHY IS THE OFFICE STILL SLOW?

How to find the real connectivity bottleneck before buying more bandwidth

Executive Summary

A faster fibre package does not automatically create a faster office. The user experience sits across a chain: the internet service, fibre termination, router or firewall, switches and cabling, Wi-Fi access points, the employee's device and the cloud application at the far end. A bottleneck at any one of those points can make a 200 Mbps or 500 Mbps line feel slow.

The practical response is to diagnose the path before approving an upgrade. Start with a controlled wired baseline, compare it with Wi-Fi in the places where people actually work, repeat tests during the problem period, and record latency, jitter and packet loss as well as download and upload speed. Then separate a line-capacity problem from a local network, Wi-Fi, endpoint or application problem.

This report gives SME owners, office managers and IT managers a manager-level diagnostic process, a worked example and an Office Connectivity Bottleneck Test that can be used before asking an ISP or technology supplier to quote. The objective is simple: spend money on the part of the network that is actually limiting the business.

Index

Use the symptom first. Then follow the test path before deciding what to replace or upgrade.

1	The line speed is not the office experience	3
2	Bandwidth is only one number	3
3	Where performance disappears	3
4	Diagnose before you upgrade	5
5	Worked SME example: 200 Mbps, but a slow office	5
6	When more bandwidth really is the answer	6
7	Questions to ask before approving a connectivity quote	6
8	Office Connectivity Bottleneck Test	7
	Closing perspective	7
	Sources and notes	7
	Plain-English connectivity glossary	8

Quick route through the report

Whole office slow? Start at Section 4. Only one area slow? Read the Wi-Fi and cabling checks in Section 3. Calls are poor while downloads look fast? Read Section 2 first. One person or one application is affected? Do not upgrade the line until the endpoint or application has been isolated.

Considering more bandwidth?	Sections 4 and 6 — prove whether capacity is actually the constraint.
Suspect Wi-Fi or cabling?	Sections 3 and 5 — compare locations and isolate the internal path.
Preparing a quote or sign-off?	Sections 7 and 8 — use the questions, checklist and acceptance test.

1 The line speed is not the office experience

South Africa's fixed-broadband base continued to grow strongly in 2025. ICASA reported that fixed broadband subscriptions increased by 19.3%, while fibre-to-the-home/building subscriptions increased by 22.0%. [1] For an SME, the connection increasingly carries everyday services such as cloud accounting, Microsoft 365, hosted voice, card payments, CCTV access, remote support and file sharing.

It also creates a familiar management problem. The business pays for a faster fibre service, a speed test shows an impressive number, yet staff still complain that the internet is slow. Video calls break up in the boardroom. The warehouse tablet disconnects. One part of the office is fine while another struggles. Files take too long to open just when everyone is busy.

The instinct is often to buy more bandwidth. Sometimes that is correct. Often it is not. The fibre service is only the first part of a longer performance path.

The performance path

Internet / fibre service → fibre termination (ONT) → router or firewall → switches and cabling → Wi-Fi access points → user device → cloud application or remote service

A weak point anywhere along that path can make the office feel slow. A faster service at the front cannot repair poor Wi-Fi coverage at the back, an overloaded firewall, an old 100 Mbps switch port, a damaged network cable, a laptop with a struggling wireless driver or an application that is slow at the provider's end.

Management principle

Do not ask "How fast is our fibre?" first. Ask "Where, exactly, does the delay begin?" The second question leads to evidence. The first often leads straight to a quote.

2 Bandwidth is only one number

Most connectivity discussions begin with megabits per second (Mbps). That is useful, but it measures capacity rather than the whole user experience. Cloudflare notes that a high throughput result does not necessarily translate into a high-quality online experience, because modern applications can be sensitive to latency, jitter and packet loss as well as raw throughput. [2]

Measure	Plain-English meaning	What the user notices
Bandwidth	How much data can move at once.	Large downloads, backups and many simultaneous users can expose a capacity limit.
Latency	How long data takes to travel to the destination and back.	Delay when opening services, remote systems or speaking on real-time calls.
Jitter / packet loss	How consistently packets arrive, and whether some disappear.	Choppy audio, frozen video, robotic speech or intermittent sessions.

Microsoft's own Teams diagnostics track round-trip time, jitter and packet loss for real-time calls, and its guidance specifically notes that Wi-Fi can have a significant impact on call quality. [3] That is why an office can record a strong download speed and still have poor voice or video performance.

3 Where performance disappears

A useful diagnosis works from the outside in. Each layer has different symptoms and a different owner. The objective is not to prove that one supplier is wrong; it is to isolate the point where performance changes.

3.1 The service or fibre hand-off

If a wired test close to the router or firewall is consistently far below the service you are paying for, or latency and packet loss deteriorate before traffic reaches the internal network, the access service or its upstream route deserves investigation. Test more than once and at different times. A single browser test is evidence, not a verdict.

3.2 The router or firewall

The router or firewall has to route traffic, apply security rules and sometimes manage VPNs, content filtering and multiple internet links. An older or undersized device can become a bottleneck long before the fibre line does. The clue is that performance is poor on both wired and wireless devices even though the underlying service tests well when the network edge is examined professionally.

3.3 Switches and cabling

A network is only as fast as the path between its components. Old switch ports, incorrect link negotiation, damaged cables or poor patching can quietly hold a connection back. These faults are easy to miss because the internet is technically “working”. A wired comparison from more than one network point can reveal whether the slowdown starts after a particular switch or cable run.

3.4 Wi-Fi design

Wi-Fi is where many office complaints become visible. Coverage, interference, the number and placement of access points, wall construction and the number of active devices all matter. A single router in reception may be entirely adequate for reception and entirely inadequate for the boardroom, warehouse and finance office. Professional wireless design is based on the floor plan and client density, not simply the headline range printed on a box. Aruba's validated design guidance, for example, treats access-point placement and client density as core design variables and recommends placing access points near users rather than assuming a hallway device will cover everything. [4]

3.5 Peak usage and background traffic

A network can feel fine at 07:30 and slow at 10:00. Cloud backups, file synchronisation, operating-system updates, off-site CCTV viewing, large uploads and many simultaneous calls can create short periods of congestion. The important question is not only average utilisation but what happens at the same time as the complaint.

3.6 The device

If one laptop is slow while the device next to it is fine, start with the endpoint. Wireless drivers, power-saving settings, malware, local storage pressure and old hardware can all affect perceived network performance. Microsoft recommends keeping wireless drivers up to date and notes that many wireless issues can be corrected by doing so. [3]

3.7 The application, VPN or remote service

If general browsing and other cloud services are responsive but one system is slow, the internet line may not be the problem at all. VPN routing, DNS, the application's hosting location, a remote server or the application itself can introduce delay. Test a second service at the same time before blaming the connection.

Start with the symptom

What staff report	Likely area to isolate	First useful test
Everyone is slow all day	Service, router/firewall or core switch	Controlled wired baseline
Only one area is slow	Wi-Fi coverage, interference or local cabling	Same device in two locations
Calls break up but downloads look fast	Latency, jitter, packet loss or Wi-Fi contention	Call-quality data plus wired comparison
Slow only at busy times	Capacity, uploads or background traffic	Test during the complaint window
One laptop is slow	Endpoint or wireless driver	Compare another device on same desk

What staff report	Likely area to isolate	First useful test
One application is slow	Application, VPN, DNS or remote host	Compare other services at same time

4 Diagnose before you upgrade

The following sequence is deliberately simple. It will not replace a professional network survey, but it gives management enough evidence to avoid starting the conversation with a guess.

Step 1 — Define the complaint precisely

“The internet is slow” is not a diagnosis. Record who is affected, where they are, what application they are using, what time it happens and whether the problem is constant or intermittent.

Step 2 — Establish a wired baseline

Use a known-good laptop connected by Ethernet to a trusted network point close to the router/firewall. Record download, upload, latency, jitter and packet loss. Repeat at different times. Do not make configuration changes or bypass security equipment without the network administrator or provider.

Step 3 — Compare Wi-Fi in the work areas

Use the same device and same test in reception, finance, boardroom, warehouse or other problem zones. The comparison matters more than chasing one “perfect” number.

Step 4 — Test while the problem is actually happening

A test at lunchtime may tell you nothing about a complaint that happens every morning at 09:00. Measure during the peak period and note what else is running.

Step 5 — Look for competing traffic

Check whether backups, large uploads, CCTV viewing, cloud synchronisation, software updates or guest usage coincide with the slowdown.

Step 6 — Use application evidence where available

Modern voice and meeting platforms can expose call-quality data. That can distinguish a bandwidth problem from packet loss, jitter, Wi-Fi or endpoint issues.

Step 7 — Record the fault domain and retest

Classify the result as service/WAN, router/firewall, switching/cabling, Wi-Fi, endpoint or application. Assign an owner, make one change at a time, and repeat the same test.

A useful acceptance test

A fix is not complete when a technician says it is complete. Repeat the original user scenario from the original location, at a comparable busy time, and record the result. If the problem was a Teams call in the boardroom at 09:00, the acceptance test is not a speed test beside the router at 16:30.

5 Worked SME example: 200 Mbps, but a slow office

Consider an illustrative 35-person business with a 200 Mbps fibre service. Finance and reception are satisfied, but the boardroom drops video calls and the back office complains that cloud files are slow. Management is considering a move to 500 Mbps.

Check	Finding	What it suggests
Wired baseline near router	Consistently close to contracted speed; stable latency	The fibre line is unlikely to be the first bottleneck
Reception Wi-Fi	Good and stable	The wireless system works in some areas
Boardroom Wi-Fi	Speed varies sharply; calls show instability	Coverage/interference or AP capacity needs investigation
Back-office Wi-Fi	Weak performance at the same time the front office is fine	Local wireless design rather than line capacity
Network layout	One main access point plus an unmanaged extender	The internal distribution path is the stronger suspect

In that scenario, paying for 500 Mbps would increase the capacity delivered to the building but would not change the physical coverage problem inside it. The better first action is to survey the wireless layout, verify wired backhaul and switch capability, correct the access-point design and then repeat the same boardroom and back-office tests.

The opposite can also happen. If the wired baseline is healthy in the morning but repeatedly reaches the service limit during peak periods, and the slowdown affects the whole office at the same time, additional capacity may be justified. The point is not to avoid upgrades. It is to make the upgrade answer an observed constraint.

6 When more bandwidth really is the answer

A bandwidth upgrade becomes a much stronger business case when the local network has been tested and the evidence points to the internet service as the limiting resource.

- The whole office slows at the same time, including wired users.
- Peak utilisation repeatedly approaches the available service capacity during normal business activity.
- Upload capacity is constrained by backups, large file transfers, off-site synchronisation or other legitimate workload.
- Headcount, cloud usage or site activity has grown materially since the service was specified.
- The router/firewall, switching and Wi-Fi infrastructure can handle the higher service speed.
- The upgrade includes a clear acceptance test and does not remove the need for backup connectivity where downtime matters.

Cost versus productivity

An unnecessary bandwidth upgrade creates a recurring cost without removing the bottleneck. An under-sized line creates a productivity cost every time work queues behind it. The financially sensible decision is the one supported by measurement, not the cheaper or faster package in isolation.

7 Questions to ask before approving a connectivity quote

A good proposal should be able to explain the problem it is solving and how the result will be proved. These questions work whether the recommendation is more bandwidth, new Wi-Fi, a router replacement, cabling or a broader network redesign.

- What was measured, and was the test wired or wireless?
- Where in the building were the tests performed?
- Were tests repeated during the period when users report the problem?
- Did the assessment record latency, jitter or packet loss as well as download and upload speed?
- What evidence shows that the proposed component is the bottleneck?
- Will any existing router, switch, cabling or access point prevent us from using the new service speed?
- How many active users and devices was the design based on?
- What happens to voice, cloud applications and other services if the primary connection fails?
- Who supports the fibre, router, Wi-Fi and internal cabling if the problem crosses supplier boundaries?

- What exact acceptance test will prove that the user complaint has been resolved?

8 Office Connectivity Bottleneck Test

Use this one-page record before approving an upgrade or calling multiple suppliers. The purpose is to arrive at the conversation with facts rather than a general complaint.

Check	Record	Result / owner
☐ Service	Package speed, provider, SLA/support terms	
☐ Primary wired baseline	Download / upload / latency / jitter / loss	
☐ Repeat at problem time	Time and result compared with baseline	
☐ Wi-Fi: main work areas	Reception / finance / boardroom / warehouse	
☐ Affected users	Everyone / area / device / application	
☐ Peak traffic	Backups, sync, uploads, CCTV, guest use	
☐ Router / firewall	Model, age, utilisation or support status	
☐ Switches / cabling	Link speeds, errors, old or suspect runs	
☐ Access points	Count, location, wired backhaul, coverage gaps	
☐ Endpoint comparison	Second device tested at same location	
☐ Fault domain	WAN / router / LAN / Wi-Fi / device / application	

Decision record

Most likely bottleneck	
Action to test	
Person responsible	
Retest date and acceptance test	

Closing perspective

The fastest number on a fibre package is easy to understand, which is why it can dominate the decision. Office performance is more complicated. It is the result of a chain, and the weakest point in that chain determines what the user experiences.

The practical discipline is therefore to measure from the network edge to the desk, compare wired with wireless, test during the real problem period, and change one thing at a time. Sometimes the result will justify more bandwidth. Sometimes it will justify better Wi-Fi, cabling, switching or a router replacement. And sometimes the network will be innocent and the application or device will be the real problem.

A connectivity decision is good when the business can state the problem, show the evidence, explain why the proposed change addresses it and repeat the original test afterwards. That is a more useful standard than simply asking whether the fibre is fast.

Before the next quote

Take the Office Connectivity Bottleneck Test to the discussion. A supplier should be able to use your evidence, challenge it where necessary, add professional measurements and explain exactly how the proposed change will be tested after installation.

Sources and notes

Sources were checked in October 2026. Technical thresholds and design choices should be verified against the specific equipment, application and site conditions.

- [1] **The State of the ICT Sector Report of South Africa — 31 March 2026.** Independent Communications Authority of South Africa (ICASA), 2026. Fixed broadband and fibre subscription growth figures. [Source link](#)
- [2] **How does Cloudflare's Speed Test really work?.** Cloudflare, 2025. Explains why throughput alone does not describe internet quality and discusses latency, jitter and packet loss. [Source link](#)
- [3] **Use CQD to manage call and meeting quality in Microsoft Teams.** Microsoft Learn, current guidance accessed October 2026. Used for the role of latency, jitter, packet loss, Wi-Fi and endpoint factors in real-time media quality. [Source link](#)
- [4] **Aruba Validated Design — Mobile First Campus Design and Deployment.** HPE Aruba Networking, validated design guide. Used for access-point placement, floor-plan and client-density design principles. [Source link](#)
- [5] **Business Fibre Internet.** Energise Business Solutions, accessed October 2026. Background on South African SME dependence on fibre, voice, cloud applications and backup connectivity. [Source link](#)

Plain-English connectivity glossary

Term	Plain-English meaning
Bandwidth	The data-carrying capacity available on a connection, usually expressed in Mbps.
Latency	The time delay for data to travel across the network; often measured as round-trip time in milliseconds.
Jitter	Variation in packet delay. High jitter can make real-time voice or video sound or look unstable.
Packet loss	Data packets that do not reach their destination. Loss can cause gaps, freezes and retransmissions.
ONT	Optical Network Terminal: the device where the fibre service terminates at the premises and hands traffic to the local network.
Router / firewall	The network edge device that directs traffic between networks and commonly applies security and access rules.
Access point (AP)	A device that provides Wi-Fi access to the local network. It is not the internet service itself.
Wired backhaul	A cable connection, normally Ethernet, linking an access point back to the switch or local network.
LAN	Local Area Network: the internal network inside the office, warehouse or site.
WAN	Wide Area Network: the connection linking a site to the internet, cloud services or other sites.
Failover	The move to a backup connection when the primary link is unavailable; this can be automatic if designed that way.
QoS	Quality of Service: network rules used to prioritise selected traffic, such as real-time voice or video, when links are busy.
Throughput	The actual rate at which data is transferred during a test or real workload; it can be lower than the headline line speed.
Switch	A wired network device that connects computers, access points, printers and other devices on the local network.
Ethernet	The standard wired network connection commonly used between devices, switches, routers and access points.
VPN	Virtual Private Network: an encrypted connection that can change the route traffic takes and can affect performance.
DNS	Domain Name System: the service that translates names such as a website address into the network address a device uses to connect.

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