

Technical report preview

This website PDF is a sanitized preview, not the complete Technical Report. The full report is exhaustive and varies with the evidence collected. Technical Reports are typically about 20+ pages; the real sample used for this preview contains 27 pages.

Included in this preview

- Page 1 - overall score, diagnostic path and score contribution
- Page 2 - executive summary and evidence confidence
- Page 3 - structured action plan and recommended next steps
- Page 10 - Router-to-Internet measurements and path graph
- Page 12 - 30-sample connection-stability evidence
- Page 15 - common-service readiness and setup timing
- Page 17 - use-case readiness for video, gaming, browsing and calls



Diagnostix360

Technical Connection Health Report

Wi-Fi – Sample Wi-Fi
DX-SAMPLE-086 • Sample run

CONNECTION HEALTH

Wi-Fi radio quality is below target



DIAGNOSTIC PATH

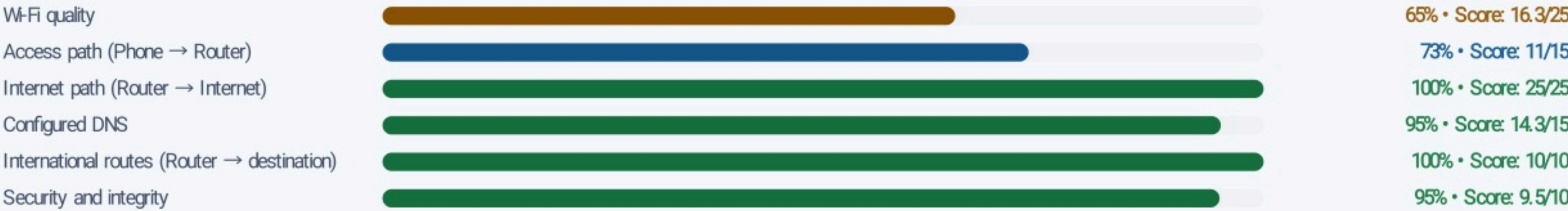


USE-CASE PATH READINESS



Path-readiness estimate from latency, website lookup and endpoint reachability; sustained download/upload speed and real playback were not measured.

SCORE CONTRIBUTION



Detailed score evidence and confidence continue on the next page.



1. Executive summary and next action

Score budget and executive summary

Area	Status	Key evidence	Earned	Evidence confidence
Wi-Fi quality	Watch	• Median RSSI -81 dBm • Weak p10 -83 dBm • Strong p90 -80 dBm • MAD 1.0 dB • Variation 3 dB • Median link 17 Mbps • 10 radio observations / 29s • Stable	Score: 16.3/25	HIGH
Access path (Phone → Router)	Info	• Measured path: Phone → Router • Target: 192.0.2.1 • Median: 13 ms • p85: 23 ms • p95: 50 ms • Maximum: 60 ms • Jitter: 4 ms • Success rate: 93.3% (28/30)	Score: 11/15	HIGH
Internet path (Router → Internet)	Good	• Median 48 ms • p85 59 ms • p95 64 ms • Maximum 68 ms • Jitter 6 ms • Success rate: 100% (28/28)	Score: 25/25	HIGH
Configured DNS	Good	• Median 93 ms • p85 140 ms • p95 202 ms • Maximum 381 ms • Jitter 14 ms • Success rate: 100% (28/28) • UDP only	Score: 14.3/15	HIGH
International routes (Router → destination)	Good	• 7 routes scored • 7 within range	Score: 10/10	HIGH
Security and integrity	Good	• Encryption Score: 3.5/4 • VPN/proxy Score: 2/2 • Reputation Score: 2/2 • Captive portal Score: 2/2	Score: 9.5/10	HIGH

Coverage: 6/6 components • 7 route(s) scored • fixed 100-point budget; points are not renormalized.

- You reported
 - How to read this result
- Downloads are slow

Sustained download speed is not directly measured in this check. The diagnosis below reports only what the measured path evidence can support.



Structured action plan

- **Finding** Wi-Fi radio quality is below target
- **Why it matters**
 - The Wi-Fi signal was very weak during this test.
- **Measured evidence**
 - Signal: -81 dBm
 - Link speed: 17 Mbps
 - Score: 16.3/25
- **Recommended actions**
 - Move closer to the Wi-Fi router and retest.
 - The 2.4 GHz radio was considerably stronger at this location (-73 dBm versus -83 dBm). Try it and retest from the same spot.

Secondary finding

- **Finding** Access path — possible brief local-path interruption
- **Why it matters**
 - The router did not answer 2 scheduled checks. This was not independently confirmed as a Wi-Fi disconnection.
- **Measured evidence**
 - Success rate: 93.3% (28/30)
 - Missed Phone → Router checks: 2/30
 - Median delay: 13 ms
 - p95 delay: 50 ms
 - Maximum delay: 60 ms
 - Independent local-disconnection corroboration: not present
- **Recommended actions**
 - Move near the Wi-Fi router and repeat the test.
 - If the missed local check happens again, pause downloads, uploads, cloud sync and backups, then retest.
 - Restart the Wi-Fi router or access point only if missed local checks keep repeating.



3.3.2 Router → Internet — score-driving path

● Result	Good
● Component score	Score: 25/25
● Target	8.8.8.8
● Protocol	ICMP probe
● Median delay	48 ms
● p85 delay	59 ms
● p95 delay	64 ms
● Maximum delay	68 ms
● Jitter	6 ms
● Success rate	100% (28/28)

Router-to-Internet path graph

This chart shows Router → Internet delay for each valid measurement round.





3.5 30-sample connection stability

Phone → Router, Router → Internet and Configured DNS measurements were collected during the same 30-sample stability window. Downstream rounds without a valid Phone → Router measurement are excluded.

2 isolated ICMP no-replies were observed; the remaining checks completed

Stability evidence

Measured item	Method	Statistics	Success / completed	Exceptions / limits	Status
Wi-Fi radio	RSSI / link	Median -81 dBm Weak p10 -83 dBm Strong p90 -80 dBm MAD 1.0 dB Variation 3 dB Link median 17 Mbps	10/10 radio observations	No missing observations 10/10 validated	Watch Stable
Phone → Router	ICMP probe	Median 13 ms p95 50 ms Max 60 ms Jitter 4 ms Spikes 0	93.3% (28/30) success	2 missed ICMP checks not independently confirmed	Info 2/30 missed ICMP checks; not independently confirmed
Router → Internet	ICMP	Median 48 ms p95 64 ms Max 68 ms Jitter 6 ms	100% (28/28) success	—	Good
Phone → DNS	DNS UDP	Median 93 ms p95 202 ms Max 381 ms Jitter 14 ms	100% (28/28) success	—	Good

Per-second evidence for all 30 rounds is in Appendix A.



3.8 Common services

3.8.1 Service readiness and timing

Service readiness and timing are shown once; the destination table retains protocol audit details.

Total setup = Resolve + TCP + TLS + HTTPS. Resolve is the hostname-resolution stage of this service setup transaction; it is not a second Configured DNS health measurement.

Setup timing by service

Service	Result	Resolve	TCP	TLS	HTTPS	Total setup
Cloudflare	Good	94 ms	20 ms	41 ms	31 ms	186 ms
Google	Good	100 ms	56 ms	98 ms	61 ms	315 ms
Microsoft	Good	140 ms	138 ms	197 ms	186 ms	661 ms
WhatsApp	Good	111 ms	67 ms	91 ms	217 ms	486 ms
ChatGPT	Good	120 ms	29 ms	28 ms	23 ms	200 ms
Facebook	Good	95 ms	67 ms	76 ms	240 ms	478 ms
Instagram	Good	84 ms	61 ms	81 ms	240 ms	466 ms
TikTok	Good	96 ms	72 ms	158 ms	603 ms	929 ms
Netflix	Good	95 ms	109 ms	161 ms	61 ms	426 ms
YouTube	Good	3 ms	77 ms	96 ms	179 ms	355 ms

All 10 services completed within their target range.

Note for the endpoint audit: an HTTP 4xx response can still confirm reachability because the HTTPS server answered the probe.



3.9 Use-case path readiness

These scores estimate path suitability from latency, website lookup and endpoint reachability. Sustained download/upload speed, sustained video bitrate and real playback were not measured.

Estimated path readiness by use case

Video readiness

Great • Score: 92/100

Looks good

Gaming readiness

Good • Score: 89/100

Looks good

Browsing readiness

Great • Score: 92/100

Looks good

Call readiness

Good • Score: 89/100

Looks good

Gaming readiness

p95 64 ms; jitter 6 ms; Internet ICMP replies 28/28

Video readiness

10/10 common services reached • setup consistency Good; Internet ICMP replies 28/28

Browsing readiness

Configured DNS 93 ms median • 28/28 queries; 10/10 common services reached • setup consistency Good

Call readiness

Median 48 ms; jitter 6 ms; estimated MOS 4.41