

BANDWIDTH IS A RED HERRING

Why Latency Breaks Collaboration in Wi-Fi Networks, Even with Wi-Fi 7

10'26

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https://falk-bachmann.de

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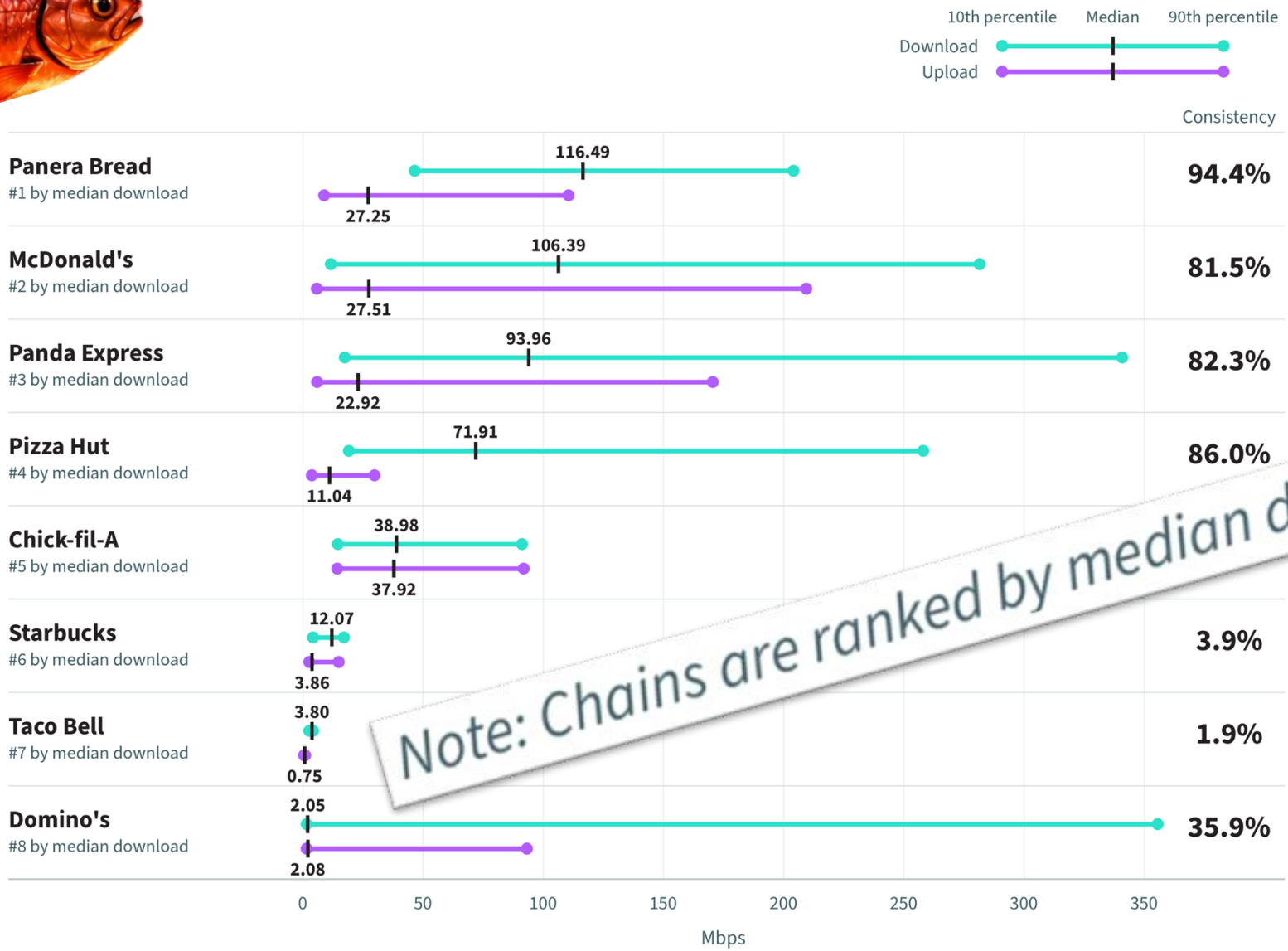
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Guest Wi-Fi speeds, top 8 Quick Service Restaurants (QSRs)

Speedtest Intelligence® | 1H 2026





Note: Chains are ranked by median download speed.

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Consistency is the share of samples meeting both the 25 Mbps download and 3 Mbps upload fixed-network thresholds at once.



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1000 Mbit/s
User Experience
Latency
Packet Loss
Response Time





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WI-FI IS JUST ONE PART ...

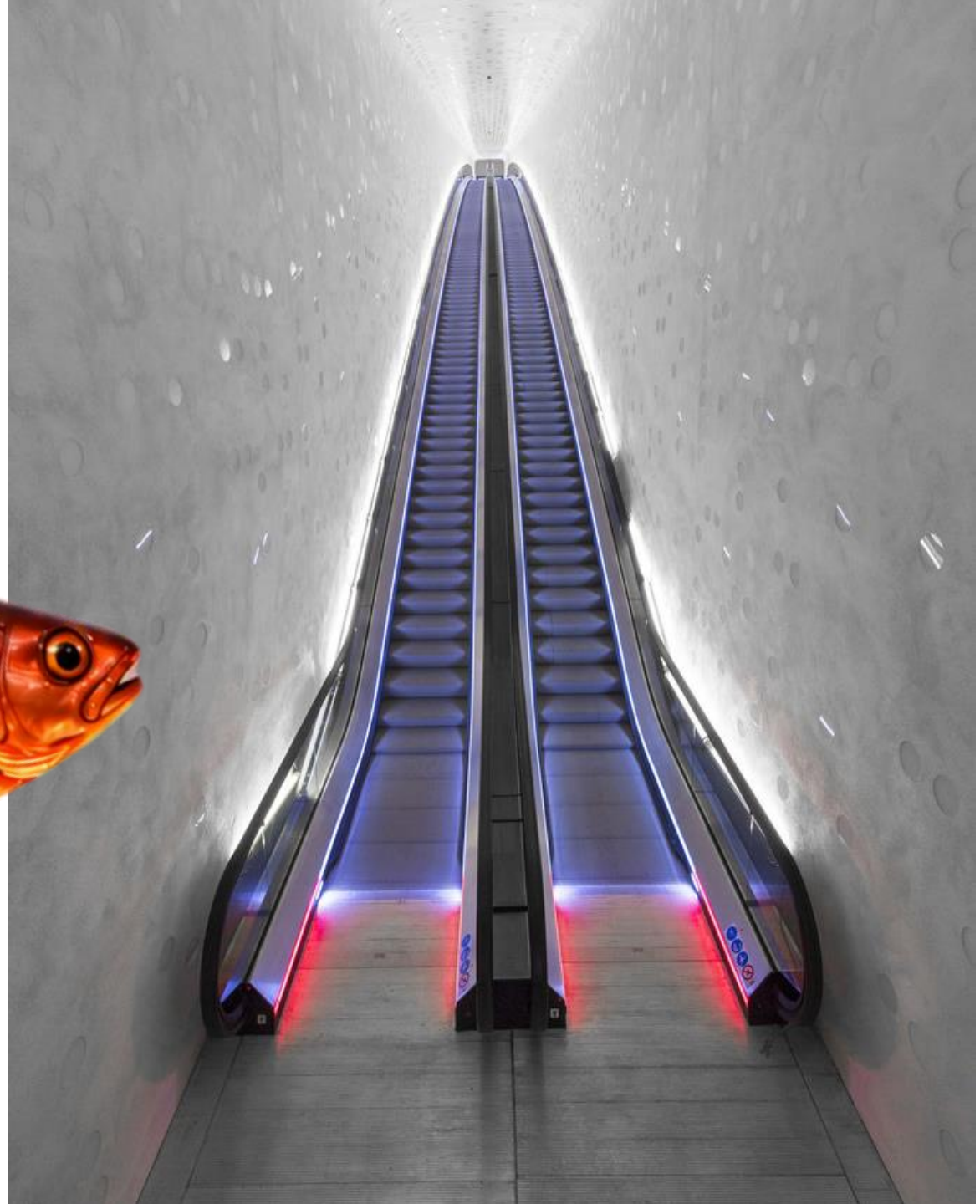
- LAN
- WAN
- Authentication
- DHCP
- DNS
- Web Servers
- Databases
- File Storage
- Internet Access

BANDWIDTH

=

SPEED?





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PACKET LOSS?

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WRONG DIRECTION





MORE


MORE

WI-FI 7/8 AS GAMECHANGER ?





CUSTOMER INFRASTRUCTURE

BANDWIDTH



WLPC Prague2026

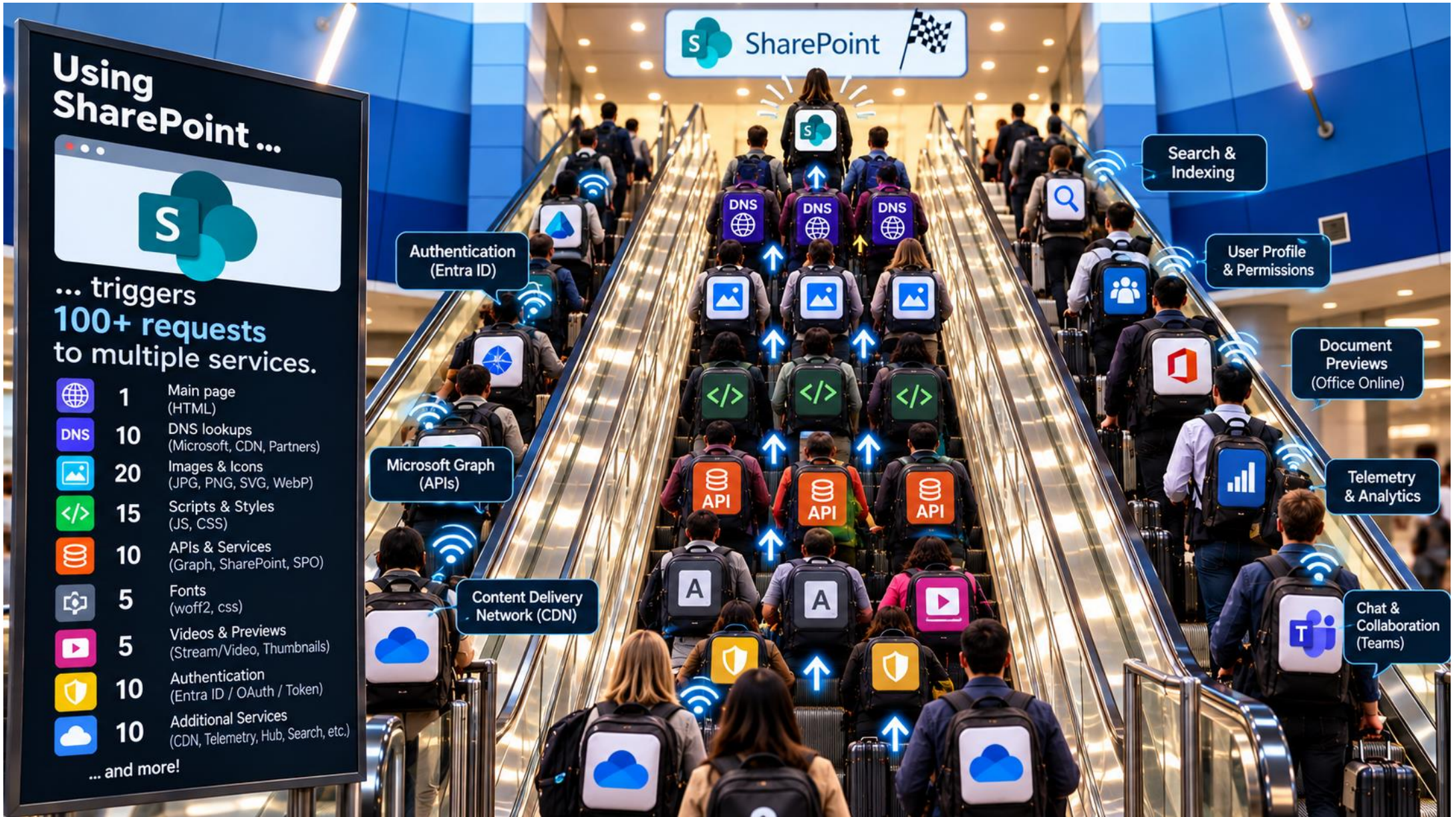
ONE CLICK. FIFTY REQUESTS. SAME ESCALATOR.

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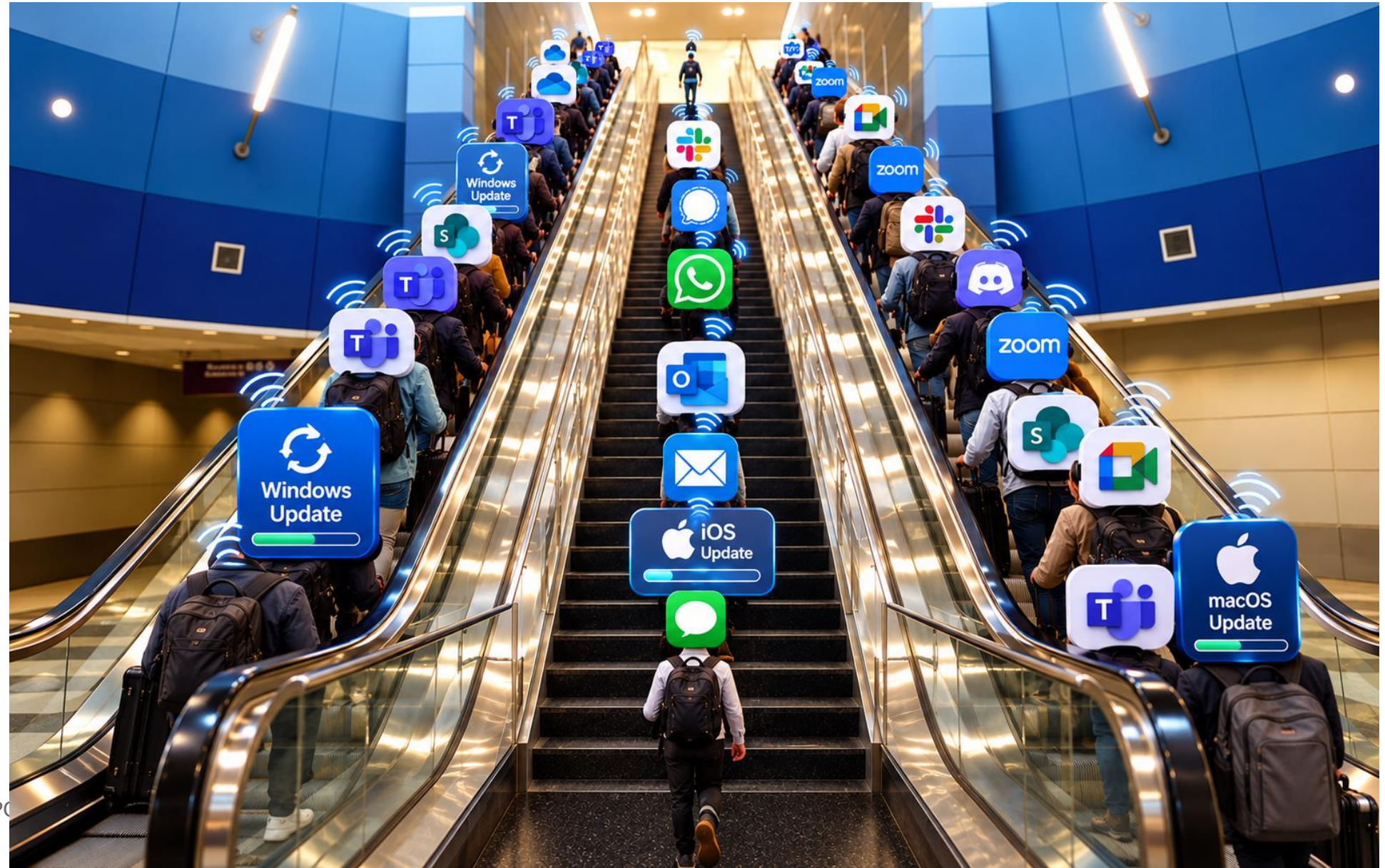


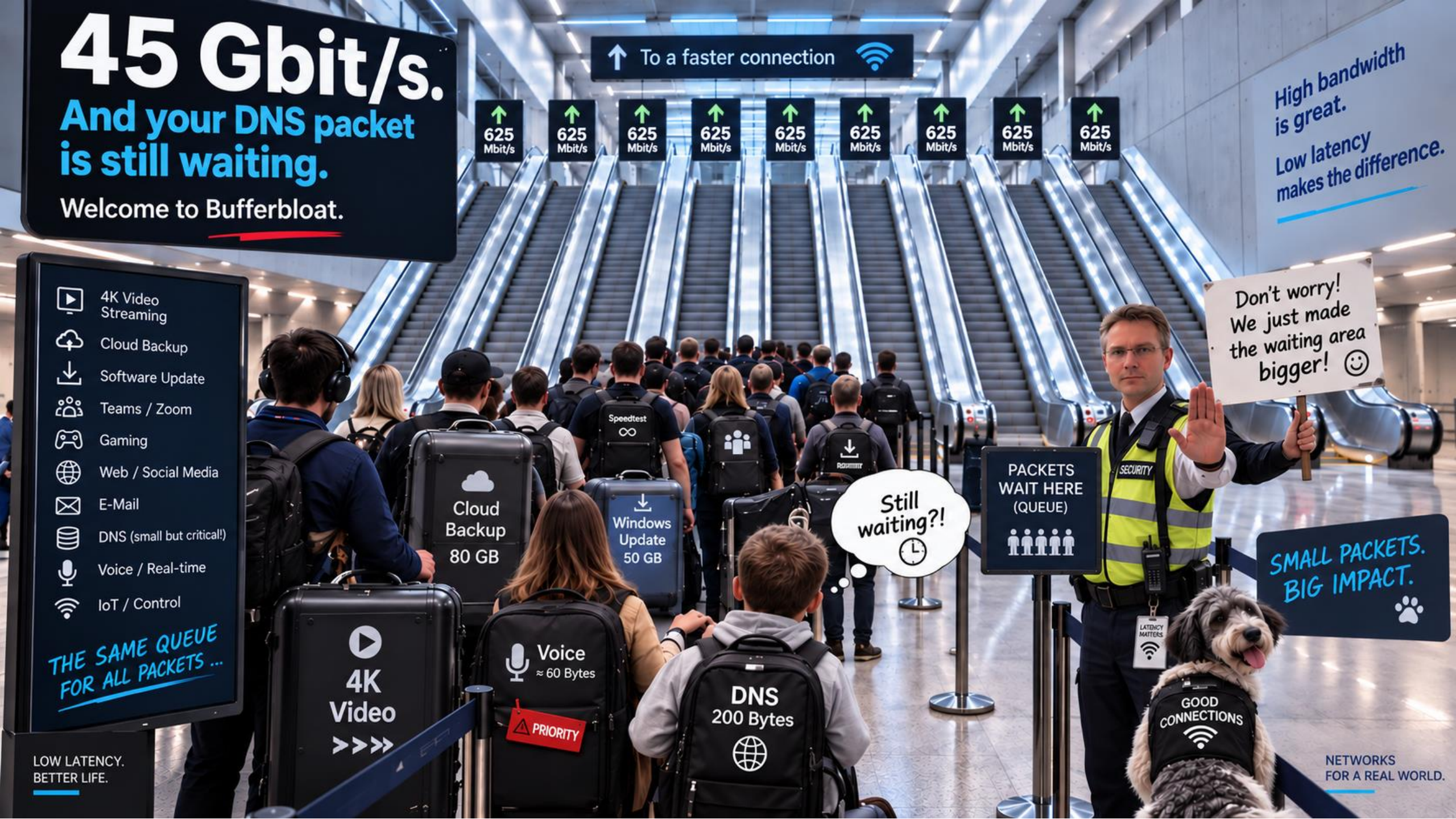
ONE CLICK IN SHAREPOINT

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QOS FOR WHOM & WHAT ?




45 Gbit/s.
And your DNS packet is still waiting.
Welcome to Bufferbloat.
To a faster connection
625 Mbit/s
625 Mbit/s
625 Mbit/s
625 Mbit/s
625 Mbit/s
625 Mbit/s
625 Mbit/s
625 Mbit/s
625 Mbit/s
High bandwidth is great.
Low latency makes the difference.
4K Video Streaming
Cloud Backup
Software Update
Teams / Zoom
Gaming
Web / Social Media
E-Mail
DNS (small but critical!)
Voice / Real-time
IoT / Control
THE SAME QUEUE FOR ALL PACKETS ...
LOW LATENCY. BETTER LIFE.
Cloud Backup 80 GB
Windows Update 50 GB
4K Video
Voice ≈ 60 Bytes
PRIORITY
DNS 200 Bytes
Speedtest
Still waiting?!
PACKETS WAIT HERE (QUEUE)
SECURITY
Don't worry! We just made the waiting area bigger!
SMALL PACKETS. BIG IMPACT.
LATENCY MATTERS
GOOD CONNECTIONS
NETWORKS FOR A REAL WORLD.


USER PERSPECTIVE

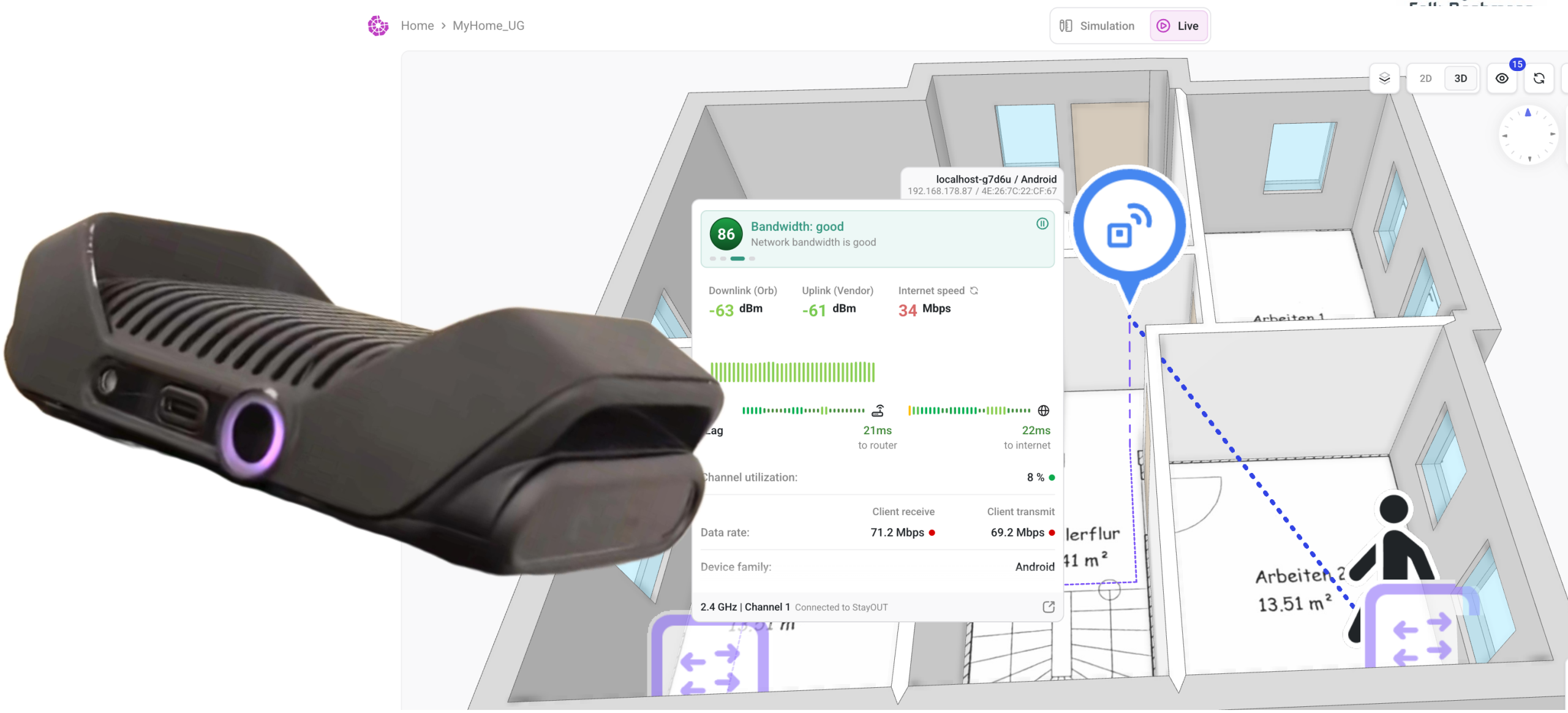
TOOLS

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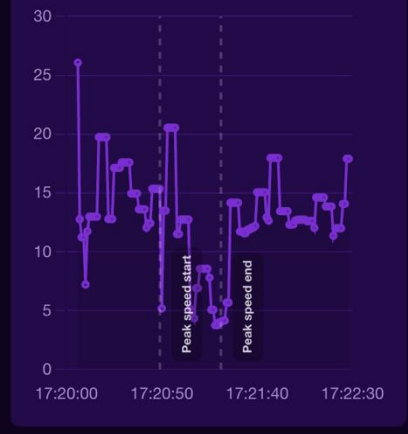
wirelessLAN
PROFESSIONALS
TOOLBOX

TOOLS – LIVE VIEW INCL. ORB SCORE

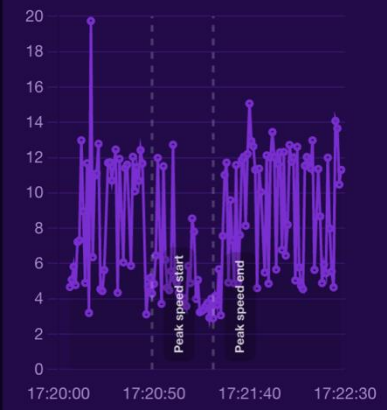


ORB Status Analytics Orchestration Events 7/10 Orbs Plus FS

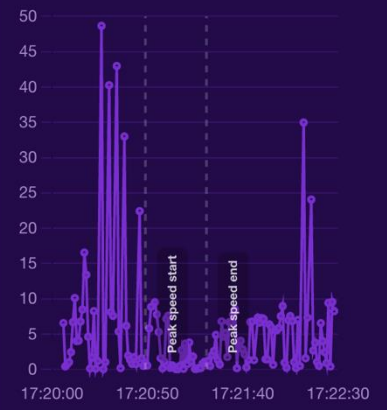
Average Router Lag (ms)



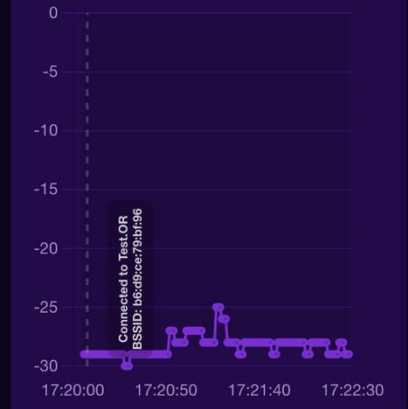
Average Router Latency (ms)



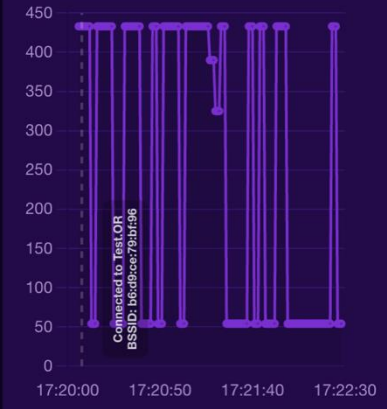
Average Router Jitter (ms)



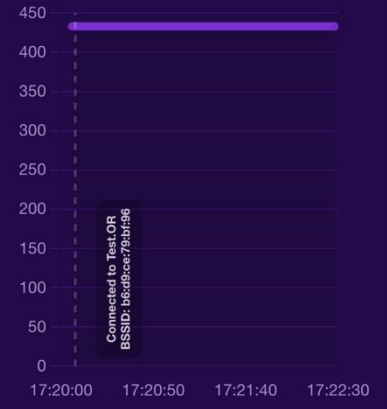
Average RSSI



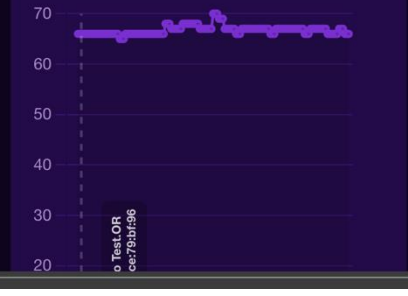
RX Rate Mbps



TX Rate Mbps



Average SNR

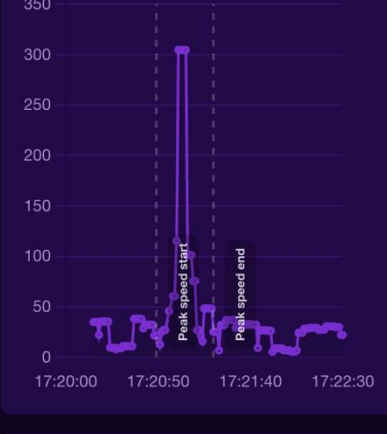


Average Noise

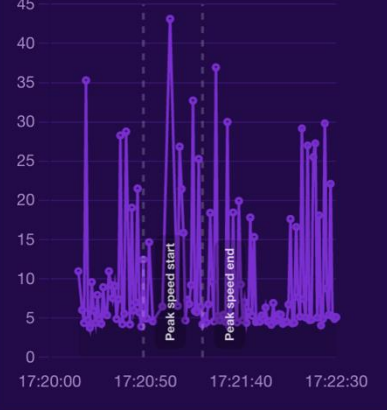


ORB Status Analytics Orchestration Events 7/10 Orbs Plus FS

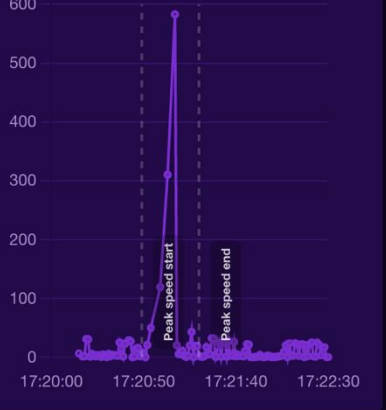
Average Router Lag (ms)



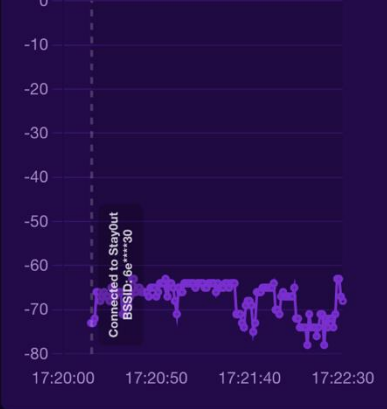
Average Router Latency (ms)



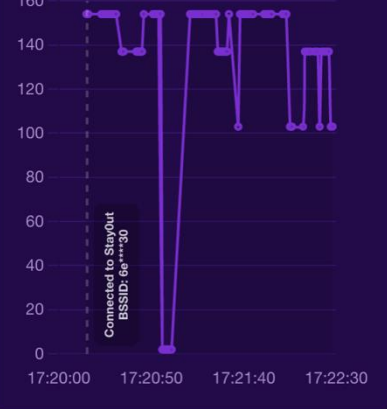
Average Router Jitter (ms)



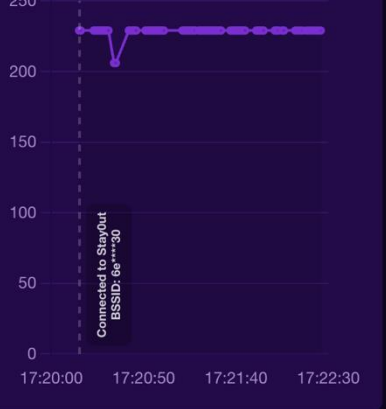
Average RSSI



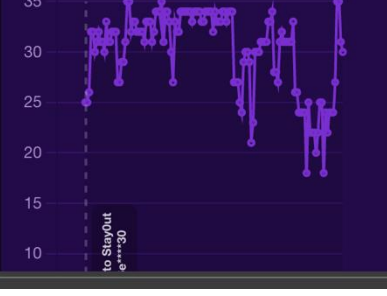
RX Rate Mbps



TX Rate Mbps



Average SNR



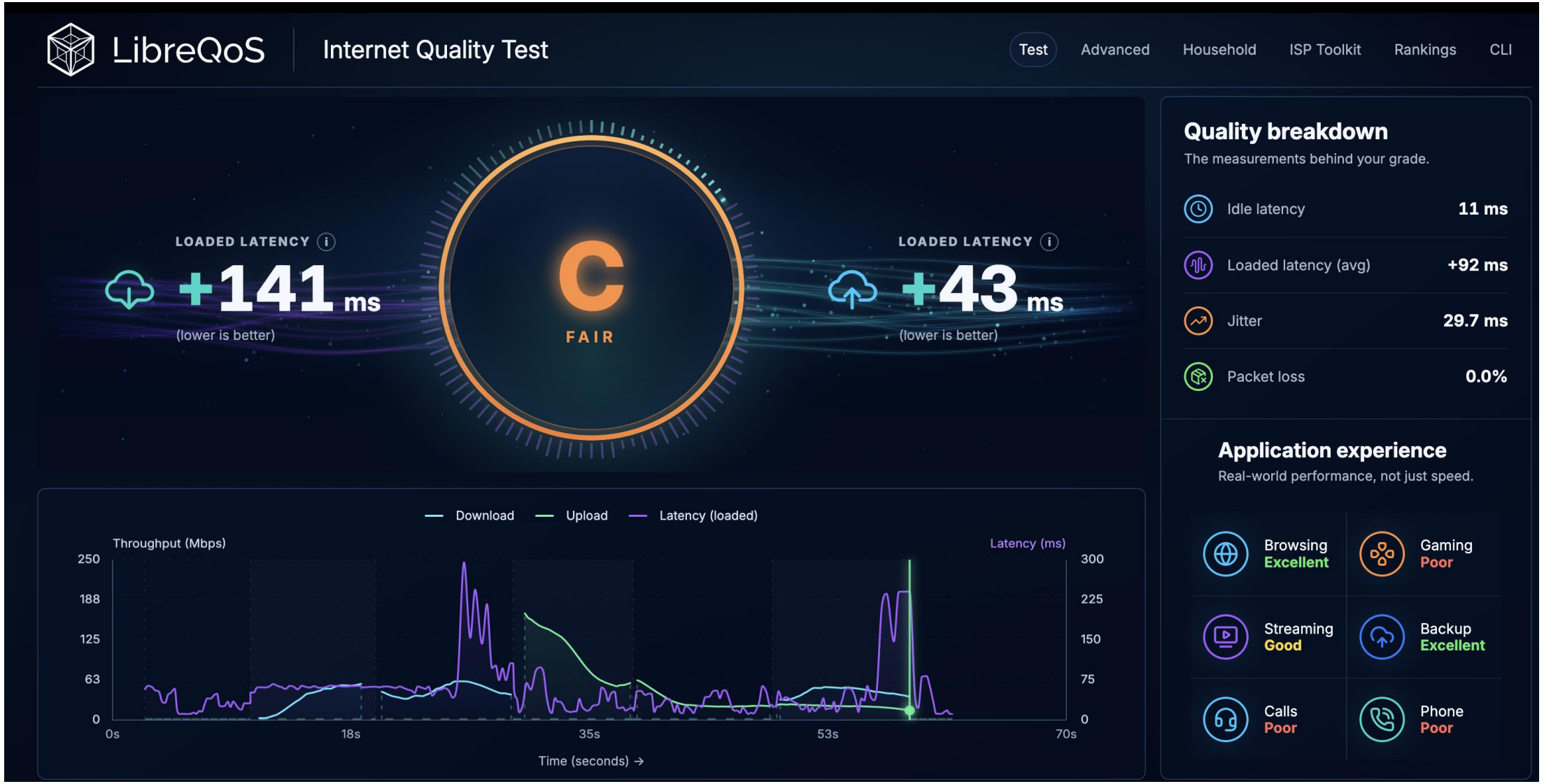
Average Noise



cloud.orb.net

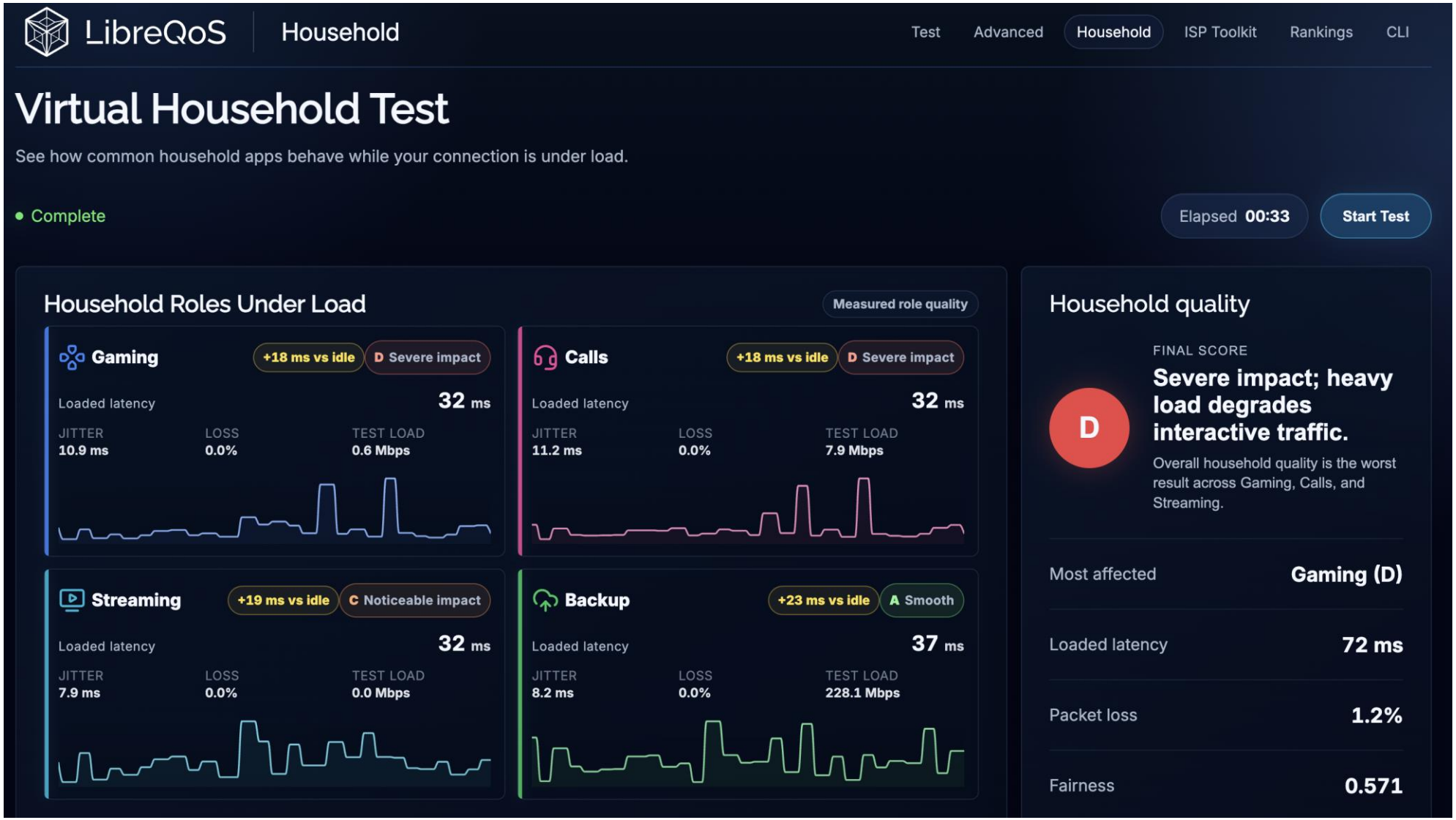
SYSTEM VALIDATION WITH BUFFERBLOAT TEST

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SYSTEM VALIDATION WITH BUFFERBLOAT TEST

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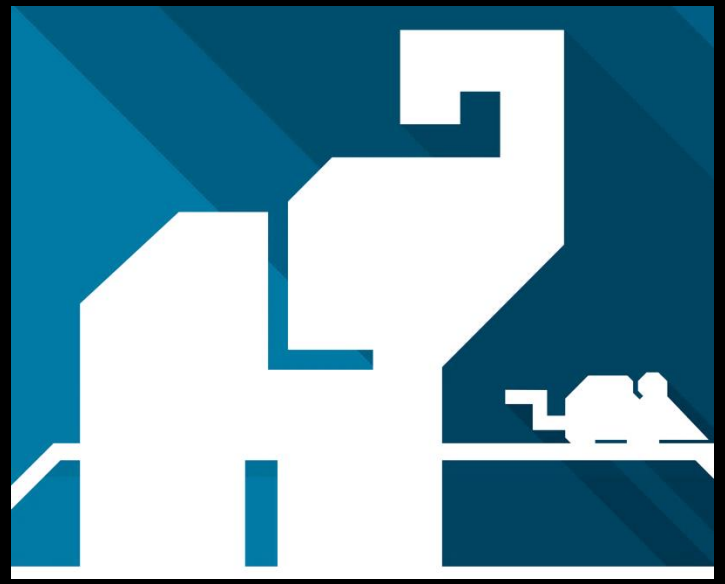


test.libreqos.com

TOKE HØILAND-JØRGENSEN

BUFFERBLOAT AND BEYOND

REMOVING PERFORMANCE BARRIERS IN REAL-WORLD NETWORKS



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Wi-Fi7
5G
Good Signal Good Mood
CWNE
CSS
CWNP
RF PLANNING & VALIDATION
Wi-Fi 7 Alchemist
Networks connect people
☑ Wi-Fi
☑ 5G
sidos

ORB - OVERVIEW

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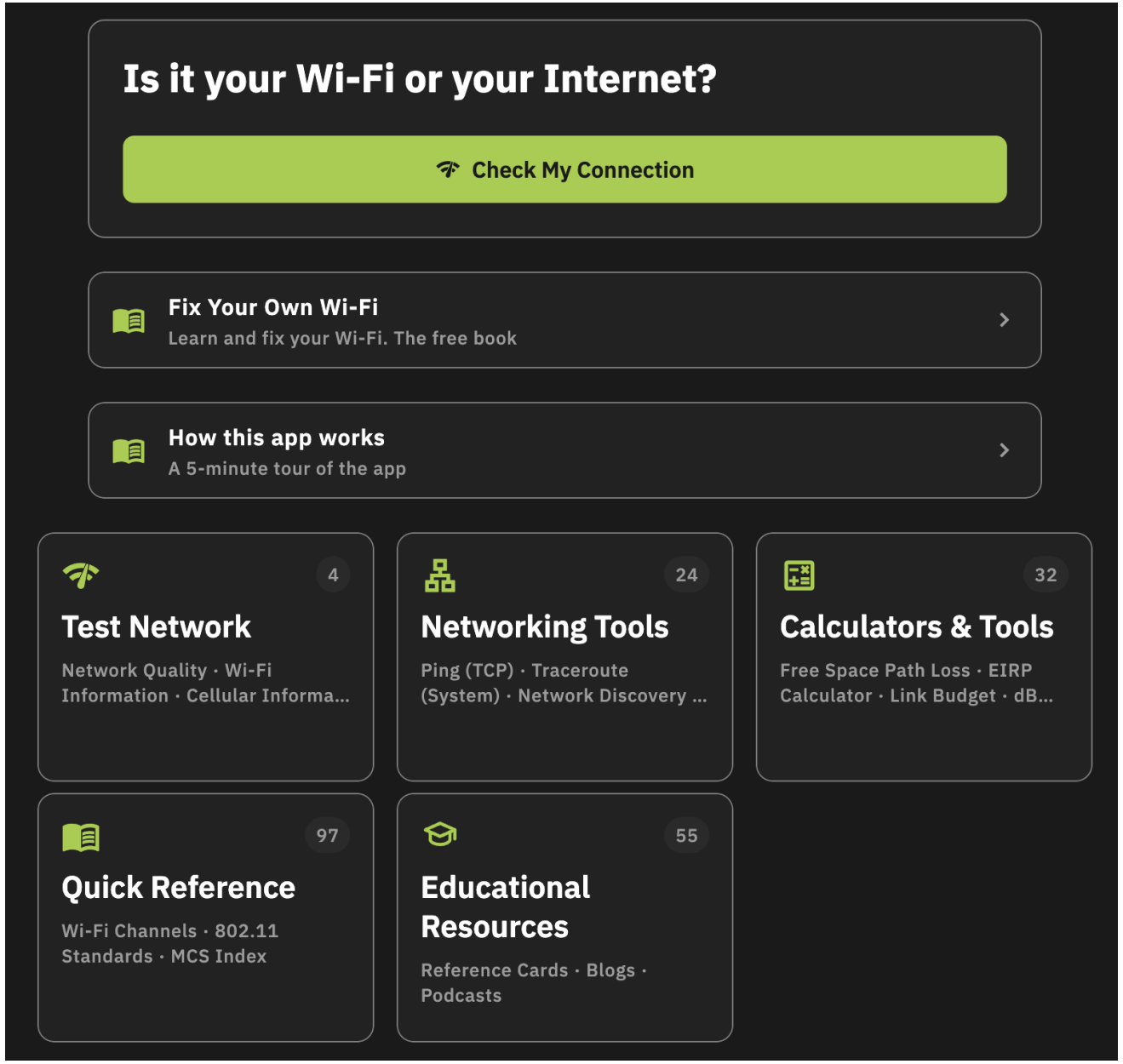
Score	Name			
81	iPad	82	69	90
92	iPhone	91	100	94
80	M14	80	100	81
86	MyPhone	82	100	89
85	Samsung SM-A217F	84	100	87

ORB-REFERRAL10-2026

10 % Discount

WLAN PROFESSIONALS TOOLBOX

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IT ARCHITECTURE & INFRASTRUCTURE

10+ YEARS AS A TRAINER
IT & MOTORSPORT

