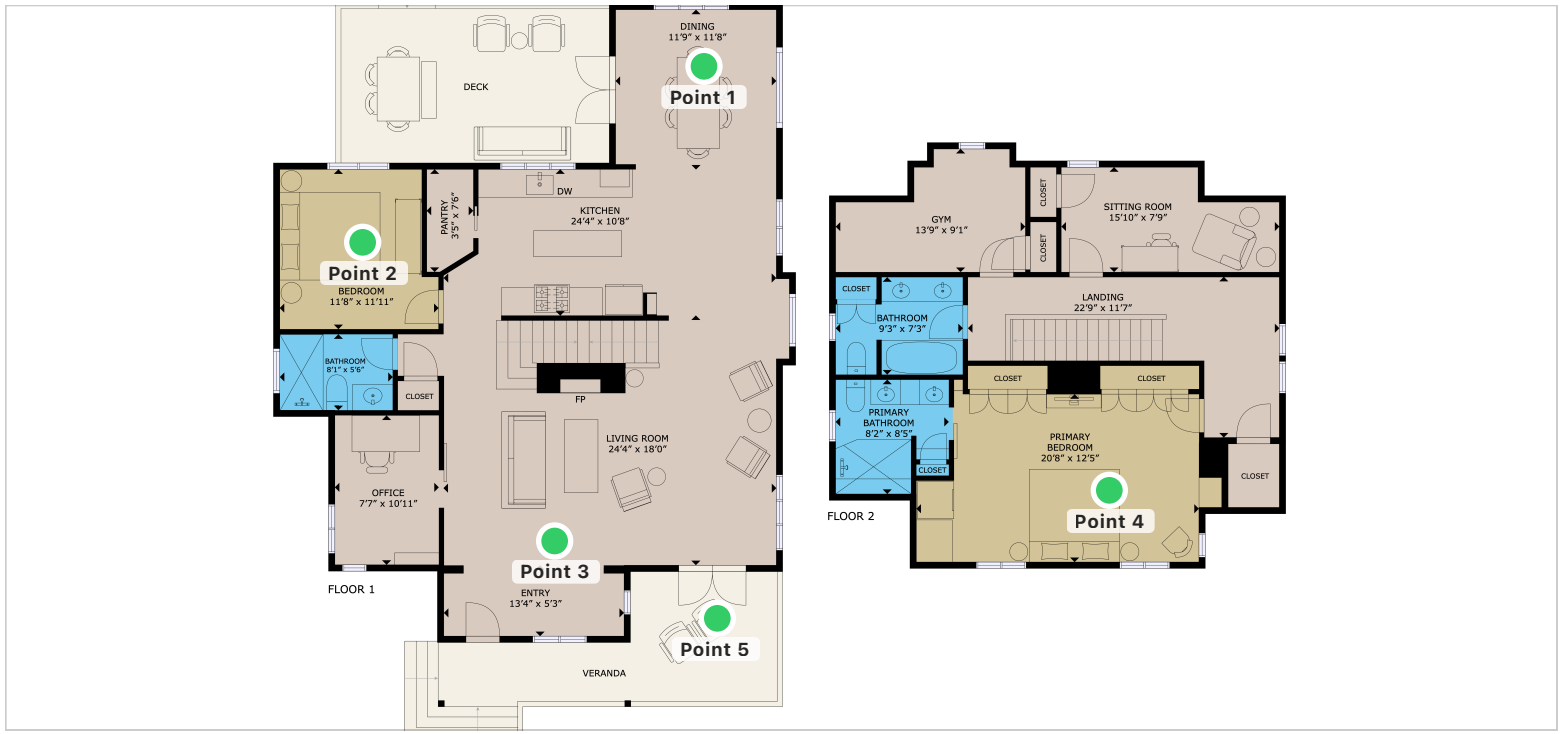
WiFi Coverage Analysis Report

Generated on August 13, 2025 at 12:21 AM

Network: opm2_5G

5 measurement points

Coverage Map



Signal Quality Legend

- **Excellent** –50 dBm+ — Best performance
- **Good** –51 to –70 dBm — Good streaming
- **Fair** –71 to –85 dBm — May have lag
- **Poor** Below –85 dBm — Weak signal

Statistics

Excellent	5
Good	0
Fair	0
Poor	0

Measurement Points

Location	Signal	Noise	SNR	Quality	MCS	NSS	Channel	BSSID	Time
Point 1	-46 dBm	-91 dBm	46 dB	Excellent	8	3	149	`f4:e2:c6:a8:d0:0a`	11:41 PM
Point 2	-45 dBm	-91 dBm	46 dB	Excellent	8	3	149	`f4:e2:c6:a8:d0:0a`	11:41 PM

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Measurement Points (continued)

Location	Signal	Noise	SNR	Quality	MCS	NSS	Channel	BSSID	Time
Point 3	-45 dBm	-91 dBm	46 dB	Excellent	8	3	149	f4:e2:c6:a8:d0:0a	11:41 PM
Point 4	-45 dBm	-91 dBm	46 dB	Excellent	8	3	149	f4:e2:c6:a8:d0:0a	11:41 PM
Point 5	-46 dBm	-91 dBm	46 dB	Excellent	8	3	149	f4:e2:c6:a8:d0:0a	11:42 PM

WiFi Network Analysis Report

Comprehensive IT Diagnostic Assessment

Generated on August 13, 2025 at 12:21 AM

Overall Score: 66/100

Network: opm2_5G

5 measurement points

Executive Summary

OVERALL NETWORK HEALTH: Excellent (86/100)

Your WiFi connection quality is excellent for institutional use. Good signal strength with excellent signal-to-noise ratio indicates excellent connection reliability.

Signal Quality	Performance	Environment
4/5	4/5	2/5

Key Findings

- ⚠️ High Network Congestion (29 networks detected) - Potential interference
- ✅ Good Signal Strength - Device well-positioned for optimal connectivity
- ✅ Sufficient Bandwidth - Speed adequate for most institutional applications
- ✅ Strong Security - All networks using modern security protocols

Coverage Summary

Excellent	Good	Fair	Poor
5	0	0	0
100%	0%	0%	0%

Signal Quality Analysis

Signal Strength	-54 dBm	Good
Signal-to-Noise Ratio	42 dB	Excellent
Noise Level	-96 dBm	
Interference Level	Low	
Capacity Utilization	Medium	
Roaming Readiness	Excellent	

Network Environment

Congestion Level	Severe
Security Grade	Excellent
Hidden Networks	0

Band Utilization:

2.4GHz	5 networks	Moderate
5GHz	24 networks	High
6GHz	0 networks	Low

Network Environment Summary

Total networks detected: 29

2.4GHz: 5 • 5GHz: 24 • 6GHz: 0

See page 5 for detailed network listing

Performance Analysis

Download Speed	88.9 Mbps	Good
Upload Speed	45.8 Mbps	Good
Latency	22 ms	Good
Packet Loss	0.6%	
Reliability Score	94/100	
Performance Trend	Insufficient data for trend analysis	

Application Readiness:

- ✗ Gaming
- ✓ Video
- ✓ Voice
- ✓ Downloads

Hardware Assessment

Device Model	**MacBook Pro (13-inch, M2, 2022)**
WiFi Standard	**WiFi 6 (802.11ax)**
Efficiency Rating	**Good**
OS Version	**macOS Sequoia 15.6.0 (Build 24G84))**

Capabilities:

- MCS Index: 6
- Spatial Streams: 2
- Channel Width: 40MHz
- PHY Mode: 802.11ax

Current Connection Details

Network	opm2_5G
BSSID	fa:e2:c6:a8:d0:0a
Channel	149 (5 GHz)
Security	WPA2 Personal
TX Rate	154 Mbps
MCS Index	6
Spatial Streams	2
Channel Width	40MHz
PHY Mode	802.11ax

IT Recommendations

1. Network Congestion

Critical

High density of WiFi networks causing potential interference.

29 networks detected in vicinity

- Perform site survey for optimal AP placement
- Optimize channel assignments
- Consider dedicated 5GHz deployment

Detected Networks (29 total)

Network Name	Signal	Noise	SNR	Channel	Band	Security	Vendor	
Helium	-34 dBm	-89 dBm	55 dB	Ch 1	2.4 GHz	WPA3 Enterprise	Unknown	
Helium	-37 dBm	-89 dBm	52 dB	Ch 6	2.4 GHz	WPA3 Enterprise	Unknown	
Wayru Mobile	-42 dBm	-89 dBm	47 dB	Ch 44	5 GHz	WPA2 Enterprise	Unknown	
Wayru OpenRoaming	-42 dBm	-89 dBm	47 dB	Ch 44	5 GHz	WPA2 Enterprise	Unknown	
Wayru Operator	-42 dBm	-89 dBm	47 dB	Ch 44	5 GHz	WPA2 Personal	Unknown	
.Wayru WiFi	-42 dBm	-89 dBm	47 dB	Ch 44	5 GHz	Open	Unknown	
Helium	-44 dBm	-89 dBm	45 dB	Ch 132	5 GHz	WPA3 Enterprise	Unknown	
MyAltice eb640d	-44 dBm	-89 dBm	45 dB	Ch 11	2.4 GHz	WPA2 Personal	Unknown	
MyAltice eb640d	-46 dBm	-89 dBm	43 dB	Ch 149	5 GHz	WPA2 Personal	Unknown	
opm2	-47 dBm	-89 dBm	42 dB	Ch 11	2.4 GHz	WPA2 Personal	Unknown	
opm_MobileAPs	-48 dBm	-89 dBm	41 dB	Ch 149	5 GHz	WPA2 Personal	Unknown	
opm2_5G	-48 dBm	-89 dBm	41 dB	Ch 149	5 GHz	WPA2 Personal	Unknown	
opm2_5G2	-48 dBm	-89 dBm	41 dB	Ch 149	5 GHz	WPA2 Personal	Unknown	
Helium	-51 dBm	-89 dBm	38 dB	Ch 116	5 GHz	WPA3 Enterprise	Unknown	
Verizon_Jussep09	-52 dBm	-89 dBm	37 dB	Ch 112	5 GHz	WPA2 Personal	Unknown	
WIVU-FC27A213AB66	-59 dBm	-89 dBm	30 dB	Ch 161	5 GHz	WPA2 Personal	Unknown	
DIRECT-wG-FireTV_c65d	-61 dBm	-89 dBm	28 dB	Ch 149	5 GHz	WPA2 Personal	Unknown	
MyAltice ab47d3	-62 dBm	-89 dBm	27 dB	Ch 149	5 GHz	WPA2 Personal	Unknown	
7f09c2_5g	-66 dBm	-89 dBm	23 dB	Ch 40	5 GHz	WPA2 Personal	Unknown	
optimum	-66 dBm	-89 dBm	23 dB	Ch 40	5 GHz	WPA2 Enterprise	Unknown	

Showing top 20 networks by signal strength.

Total networks detected: 29

Additional Analysis

Additional technical details and extended analysis continue from previous pages. For comprehensive technical specifications, refer to the complete technical report export.