

Wi-Fi Spectrum for the AI Economy

Enabling productivity and
national competitiveness

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AI competitiveness depends on connectivity

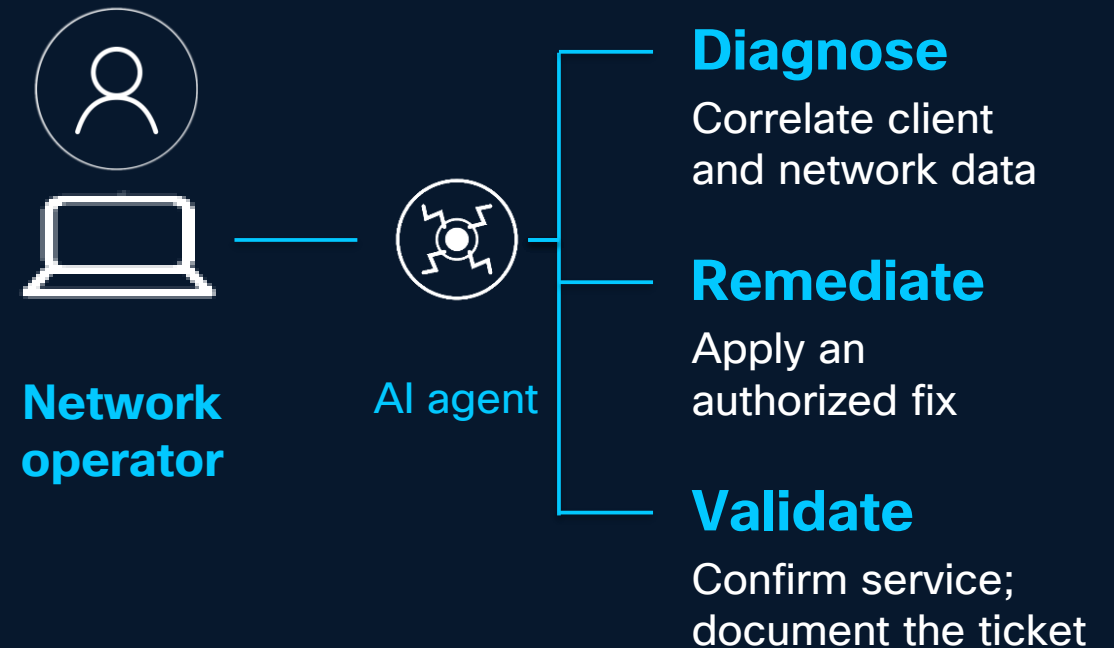
AI expands productive work. Networks must support it where businesses operate.

3h 20m

saved per person, per day

Reported in wireless operations
using AI with autonomous actions

Survey-reported average
among adopters



Illustrative Wi-Fi ticket workflow with human oversight

AI productivity depends on the network that connects the work.

Source: Cisco State of Wireless 2026, p. 18. Survey-reported average among organizations using AI with autonomous actions.

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Agents work across the business

Agents support people and automate systems on devices, enterprise platforms, and cloud services.



User devices

Research, coding, personal assistance



Physical AI

Robotics and autonomous inspection



Smart buildings

Occupancy, energy, environmental controls



Network platforms

Troubleshooting and automation



Security operations

Threat investigation



Cloud services

Customer and research workflows

Agents use model inference to plan, assess information, and act.

Source: Cisco AI Impact on WAN (2026), pp. 15–17. Illustrative roles and deployment locations.

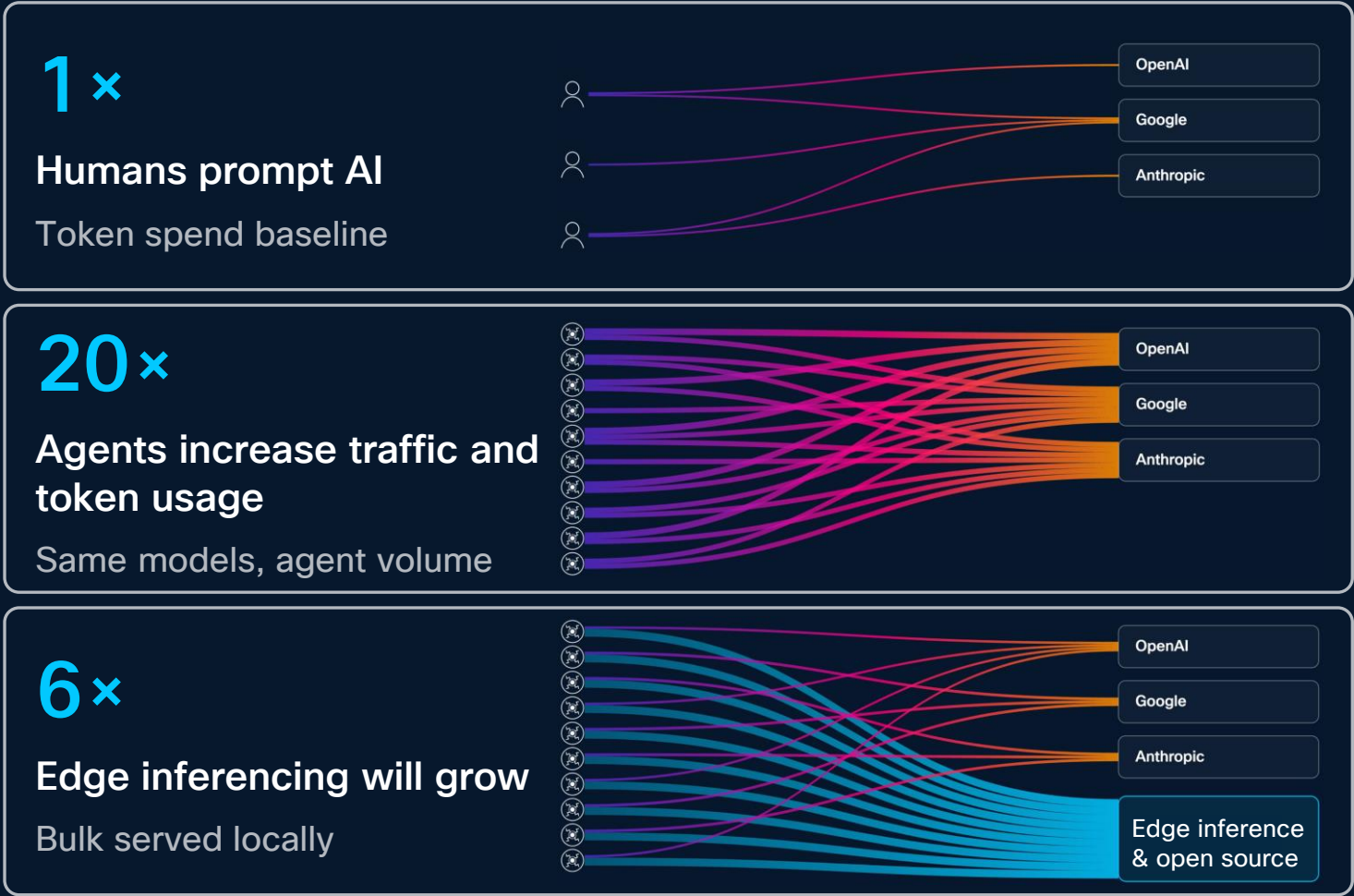
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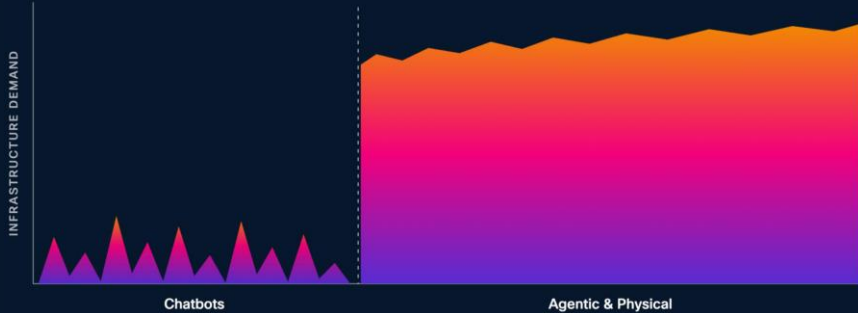
Agents multiply AI traffic, and it never sleeps

Tokens



Traffic

Agents operate at machine speed and scale



Chatbots: bursty, human-paced

Agentic & physical AI: continuous, always on

One instruction becomes many network exchanges

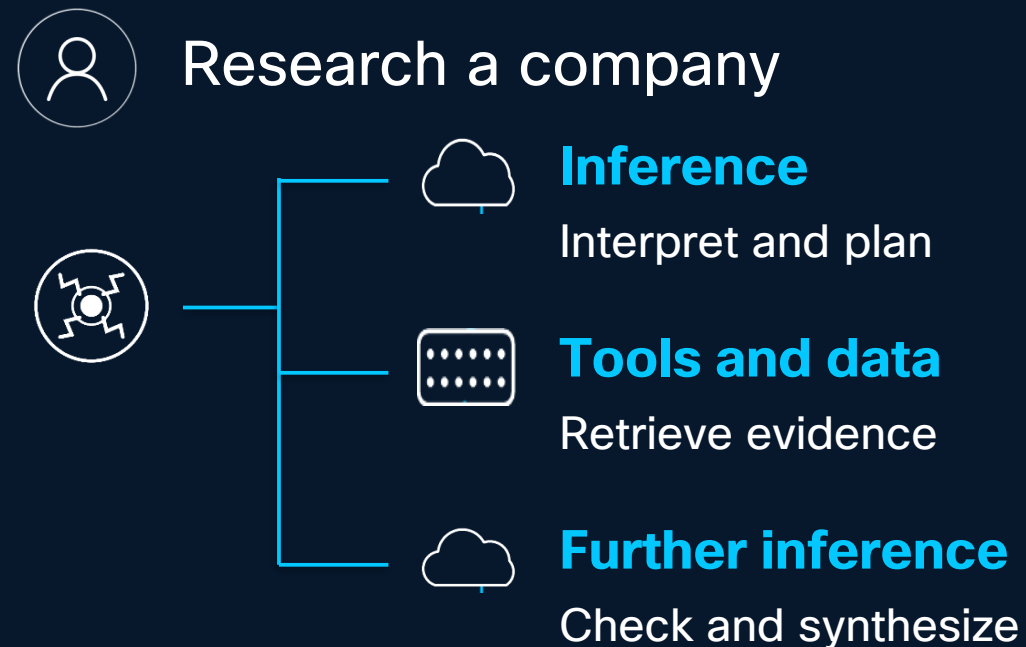
Repeated inference and tool calls move work beyond the pace of human prompting.

450%

more total network traffic

Agent research task versus
the task performed manually

44 web sources explored in the test



Repeated calls and concurrent work make connectivity critical.

Source: AI Impact on Wide Area Networks: Cisco 2026 report, p. 16, Fig. 7. Specific research-task test.

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Inference runs across devices, campus, and cloud

Models serve inference wherever the task and operating requirements make it useful.



On-device or local

- Private data and local control
- Offline use and fewer WAN round trips
- Potential cloud token savings



Campus or enterprise

- Shared inference capacity
- Managed access to enterprise data



Cloud

- Elastic capacity
- Broad model expertise and services

New local inference capacity



One agent can use several models for different expertise or capabilities.

Balance capability, privacy, efficiency, power and total cost.

Local capacity adds choice. Shared resources still need connectivity.

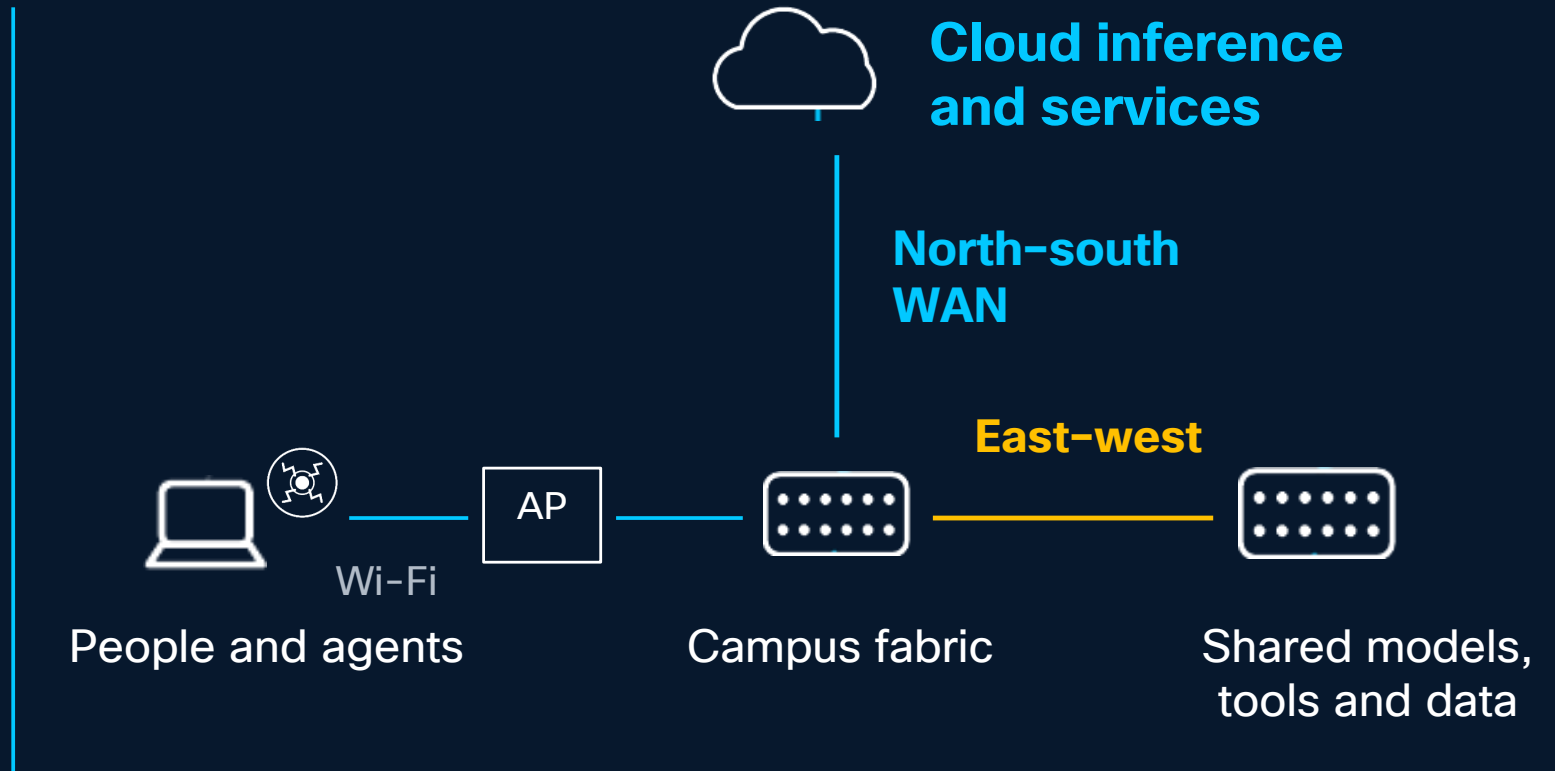
Distributed AI changes network demand and direction

Repeated activity increases volume. Resource placement determines the paths.

4×

AI inference traffic in eight months

Observed across two
service-provider networks



The network becomes part of the agent's ability to complete the task.

Source: Cisco AI Impact on WAN (2026), p.10 and pp.15-17. Observed growth and conceptual network paths.

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AI demand lands where work happens

Workplaces concentrate people, devices, enterprise data, and shared AI resources.



Campus Wi-Fi

50%

of AI-driven campus demand
is concentrated on Wi-Fi

Wi-Fi capacity must be available at the point of productive work.

Source: Cisco / Foundry, The accelerating impact of AI on campus and branch networks (2026), pp. 3, 5.
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AI readiness needs usable Wi-Fi spectrum

Capacity depends on how many nearby cells can transmit at the same time.

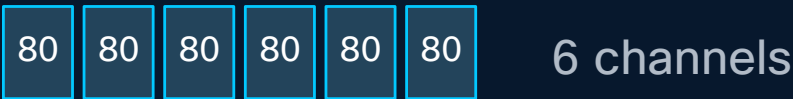
73%

of organizations face
or expect capacity limits

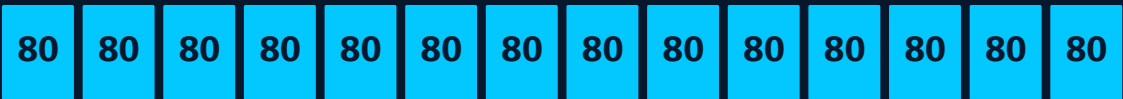
Campus and branch networks
Within the next 24 months

Channel choices improve capacity

Lower-band example: 500 MHz



Full 6 GHz band: 1,200 MHz



14 non-overlapping 80 MHz channels

Comparison width shown. Deployment width varies by site.

More usable channels reduce contention and increase network capacity.

Sources: Cisco / Foundry (2026), p.3; Cisco Wireless RF Reference Guide (2024); Cisco CX large public network guide (2026).

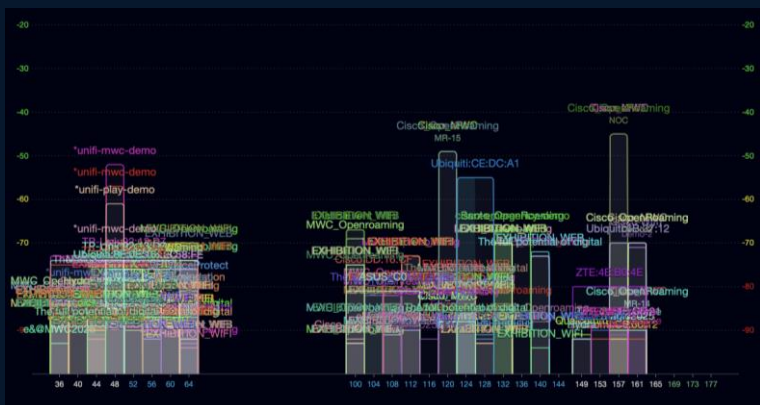
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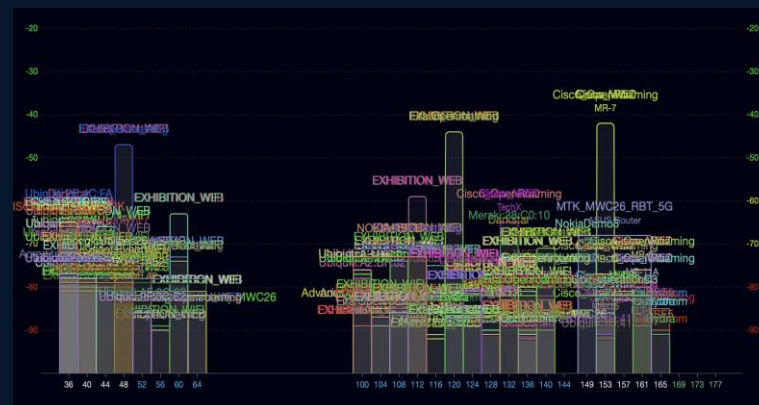
Dense venues show why Wi-Fi capacity matters

MWC, viewed from the Cisco booth: crowded 5 GHz and growing 6 GHz use.

MWC 2025



MWC 2026

[illegible]

2026 versus 2025

30%
network growth

15%
traffic growth

2025: 20 MHz channels
Managed assignments

More demand in concentrated places

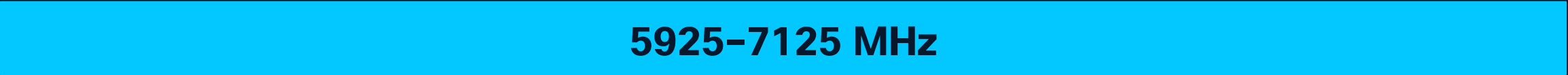
Source: Ofcom_2026-09-30v5 - mm, slides 4-5. Venue observations; scan methodology not specified.

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Spectrum policy can enable AI competitiveness

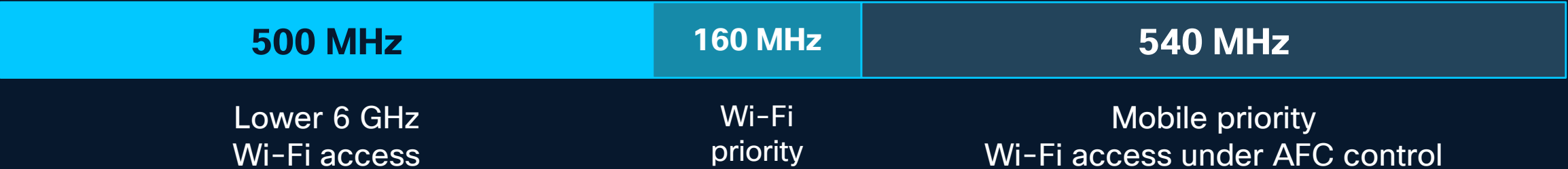
Usable Wi-Fi access, incumbent protection, and clear rules support business investment.

Wi-Fi access across the full 1,200 MHz



Where mobile also uses upper 6 GHz: managed sharing

Ofcom’s July 2026 framework



Countries need Wi-Fi capacity where businesses put AI to work.

Sources: Ofcom upper 6 GHz statement, 20 July 2026; FCC 24-125. Preferred policy outcome shown separately from UK framework.
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Thank you

