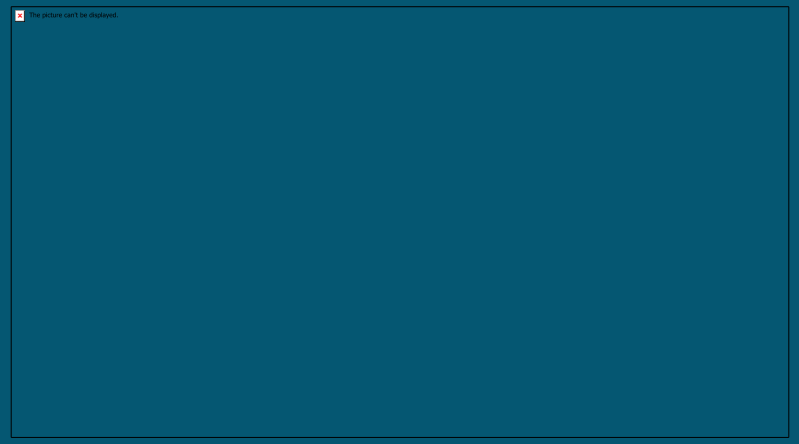
MARCH 2026 · ANALYSYS MASON

America's Manufacturing Renaissance Runs on CBRS

How private 5G and a uniquely American shared-spectrum band are underwriting the reshoring of US industry.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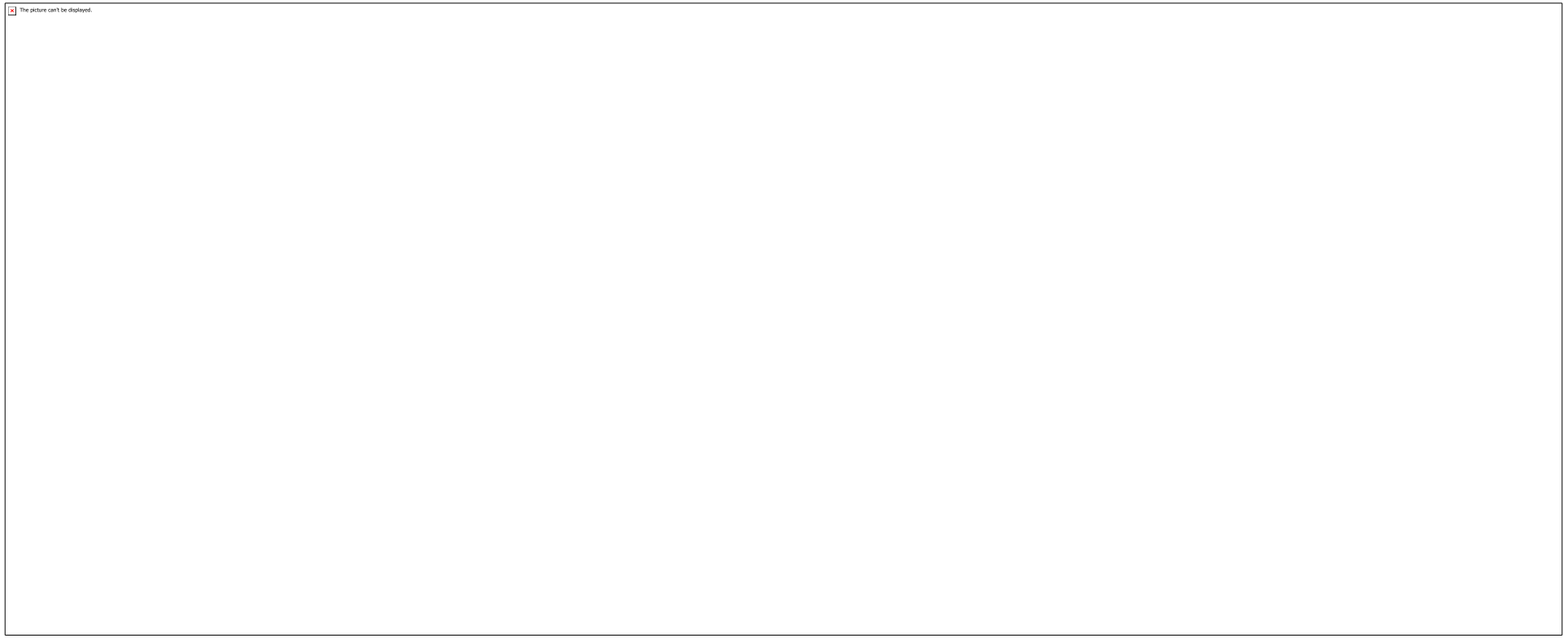
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THE STATE OF PLAY

CBRS is how American factories connect.

More dedicated private 5G networks are deployed in the United States than in any other country worldwide — and the lion's share run on the Citizens Broadband Radio Service.

75%

of US private 5G networks relied on CBRS in 2025

85%+

of manufacturing private 5G networks will rely on CBRS by 2032

36%

of all CBRS private networks will be in manufacturing by 2032

2,500+

private 5G networks forecast in US manufacturing by 2032

7,500+

total private networks in the US by 2032 (vs. ~1,500 in 2025)

1,369

FCC-approved CBRS-capable devices already in the ecosystem

WHY MANUFACTURERS CHOOSE CBRS

Public mobile can't do what the factory floor demands.

Manufacturers interviewed are consistent: public cellular struggles indoors, lacks the control their OT policies require, and locks them into an MNO's roadmap. CBRS gives them their own network, on their own terms.

01 Control

Private 5G lets enterprises decide how the network is configured, which devices and applications are prioritized, and how performance, security and resilience are managed — impossible with a shared public network.

02 Coverage

Public networks often can't penetrate industrial interiors. CBRS delivers site-wide indoor coverage and reaches outdoor yards and hard-to-reach areas that Wi-Fi and wired alternatives can't economically serve.

03 Security

SIM-based authentication and on-premises data control satisfy OT security policies. Many manufacturers' rules flatly rule out public mobile — sensitive IP cannot leave the plant.

04 Economics

Leasing licensed spectrum from an operator is more expensive, less flexible, and exposes critical data. CBRS eliminates upfront exclusive-license fees and the need to negotiate coverage with a carrier.

WHAT CBRS ENABLES

Every mission-critical application on the plant floor.

Connected workers

Tablets, push-to-talk, AR headsets across plants and yards.

Computer vision

AI-driven quality inspection with low-latency, high-uplink.

Mobile robotics

AGVs and autonomous mobile robots that can't afford a handoff gap.

Industrial tools

Smart torque wrenches, scanners, handheld controllers.

Predictive maintenance

Thousands of sensors feeding real-time analytics and AI models.

Security cameras

Site-wide surveillance at a fraction of wired install cost.

Next: *digital twins, humanoid robotics, AI-driven production design — all latency-sensitive, all riding the same CBRS foundation.*

PROOF ON THE PLANT FLOOR

Examples of companies already running on CBRS.

BMW

Spartanburg, SC

AI-driven video analytics inspecting the placement of metal studs onto automobile frames over private 5G.

John Deere

US plants

Acquired CBRS PAL licenses; 5G-connected torque wrenches verify bolt accuracy across assembly.

Dow Chemical

Freeport, TX

Plant-wide CBRS replaced a paper-based maintenance order system; faster operations and safer workers.

Cargill

Manufacturing yard

Private-5G security cameras deployed at half the cost of running wired connectivity.

Del Conca

Tennessee

CBRS network for AGVs delivered 2× wireless coverage with one-third the access points vs. Wi-Fi.

** Drawn from Analysys Mason's 2026 interviews with 15 US manufacturers, 14 of which use CBRS.*

MEASURABLE IMPACT

$50B

per year

Estimated cost of unplanned downtime to US manufacturers. CBRS private 5G is already bending this curve.

Source: Forbes / Siemens 2022–2024

30%

Reduction in unplanned downtime after CBRS deployment at a US automaker.

50%

Faster production-line changeovers at a US auto-components manufacturer.

15–20%

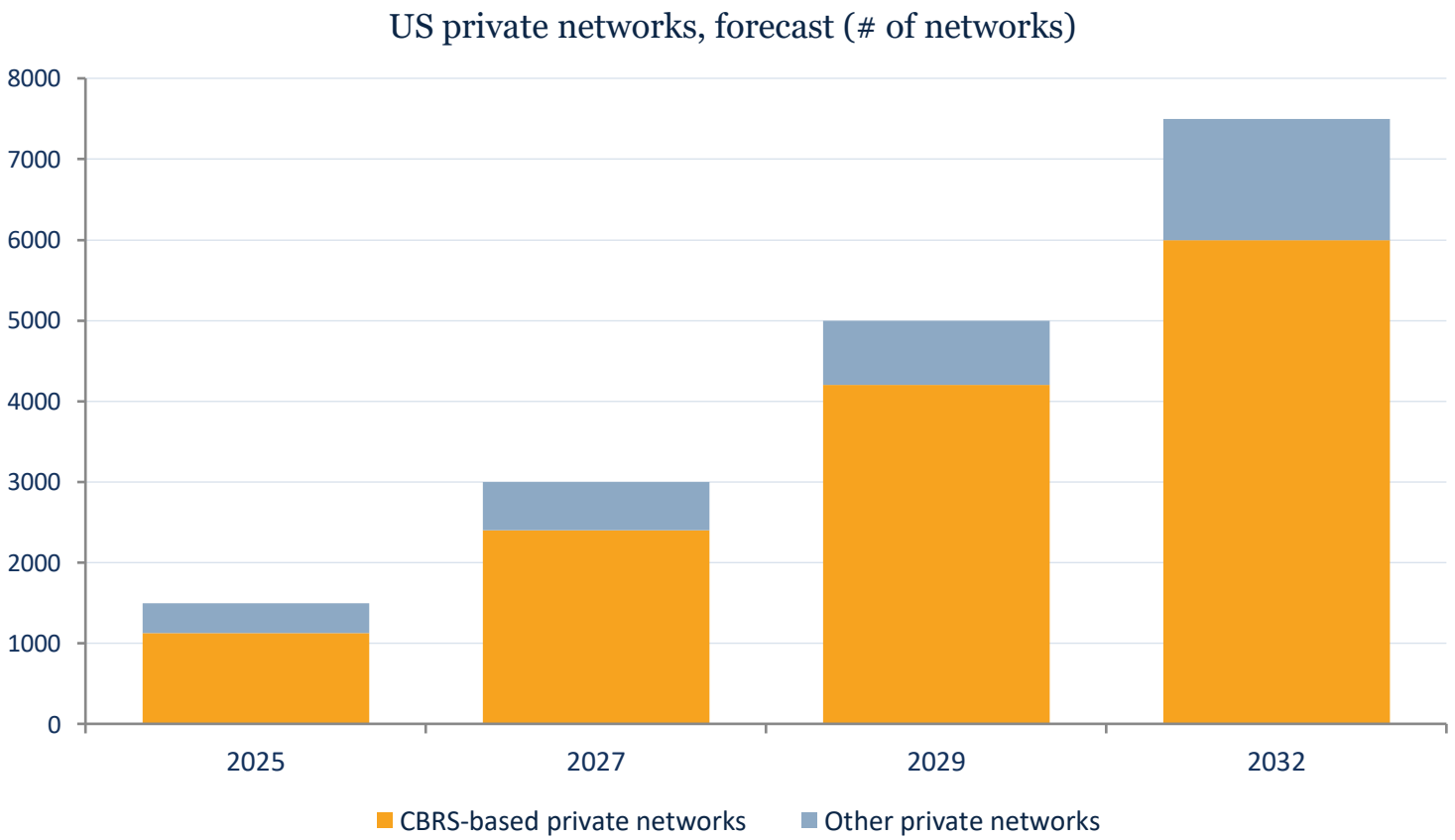
Cut in on-site IT staff at sites running CBRS private 5G.

2×

Wireless coverage vs. Wi-Fi, with one-third the access points (Del Conca).

GROWTH TRAJECTORY

A foundation that is still rapidly being laid.



Source: Analysys Mason forecast, 2026.

What the curve shows

5× growth

Private networks in the US jump from ~1,500 in 2025 to 7,500+ by 2032.

CBRS share rises

From ~75% of deployments in 2025 to ~80% overall — and 85%+ in manufacturing.

Manufacturing leads

Already the #1 sector for CBRS; 36% of CBRS networks by 2032.

AN AMERICAN-BUILT STACK

A rare telecom ecosystem where America leads.

Private 5G, USA

Dominated by USA-based vendors, integrators and SAS administrators. A three-tier sharing model unique to the United States.

1,369 FCC-approved CBRS-capable devices — cellular modules, routers, phones, tablets, and handhelds — built out over years of investment.

Also a leader worldwide in private 5G networks per capita.

Source: OnGo Alliance (Sept 2025); Analysys Mason 2026.

Public 5G, globally

Dominated by Chinese and European equipment makers. US manufacturers who rely on public networks effectively depend on foreign-controlled supply chains.

Vendor base	*Huawei, Ericsson, Nokia, ZTE*
US share	*Minimal*
Data egress	*Traverses carrier core*
Control	*Carrier-controlled*

CBRS gives the US an independent industrial connectivity layer.

A PROPOSAL, EXAMINED

What raising CBRS power levels would mean.

The FCC's August 2024 NPRM raised the possibility of increasing maximum permitted power levels for CBRS transmissions. Manufacturers interviewed for the study describe several knock-on effects.

GAA users lose channels

Higher PAL power expands operating areas where GAA users cannot share a channel. The vast majority of manufacturing deployments use GAA.

Everyone turns down

Even outside protection areas, PAL and GAA users must cut their own power to avoid interfering with higher-powered PAL holders.

DoD neighborhoods grow

Current CBRS dynamic protection zones cover ~3% of the continental US. Higher power may force them wider — hitting coastal and near-base factories hardest.

A tragedy of the commons

Once power rises, others escalate to defend performance — driving progressively higher interference for GAA-based private networks.

Use-case viability shrinks

Computer vision, AGVs and predictive maintenance all need stable low-latency links. Interference bottlenecks push manufacturers to costlier fallback tech.

Headwinds for reshoring

A less reliable CBRS layer slows private-5G adoption — and with it, the automation and reshoring investments it enables.

THE BOTTOM LINE

CBRS is already part of America's industrial infrastructure.

Pervasive

Three-quarters of the nation's private 5G runs on CBRS, with more networks in the US than in any other country.

Critical

It underpins the automation, safety and resilience investments behind US reshoring and manufacturing competitiveness.

No Alternative

With no comparable band to migrate to and an ecosystem that took years to build, disruption would take years to reverse.

Analysys Mason, March 2026 · Commissioned by Made in America 5G