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Revolutionizing Homeland Security Operations with Robust 5G Networks

From Smart Surveillance and Predictive Monitoring to Connected Infrastructure and Autonomous Inspection


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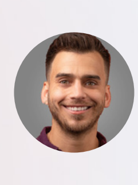
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Research Manager,
Government Trust and
Resiliency Strategy, IDC

Enhanced Communication and Coordination for Department of Homeland Security Agencies

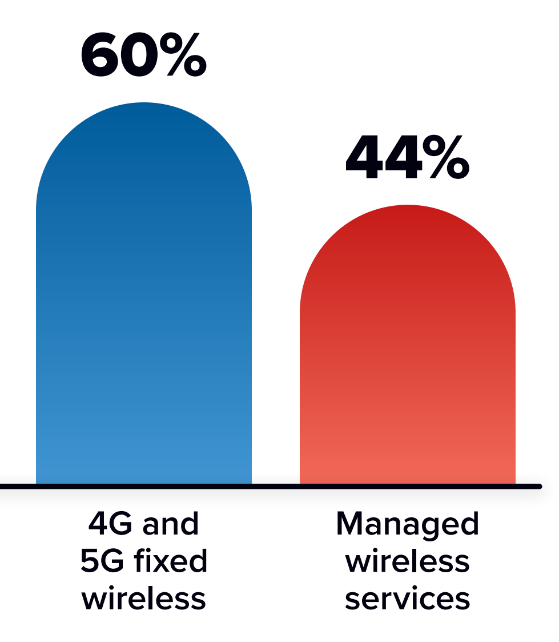
How 5G-Enhanced Communication and Coordination Drive Mission Success

30% of federal agencies today
are implementing 5G technology.

34% of federal agencies
cite network slicing as the top driver
for adopting 5G technology.

n = 241; Source: *North America Government and Education Buyer Intelligence Survey 2024,* IDC, October 2024

INCREASED SPENDING BY ORGANIZATIONS:
(Government respondents)



n = 37; Source: *Future Enterprise Resiliency & Spending Survey Wave 6,* IDC, June 2024

Close to one-third (28%) of federal agency respondents
say demand for 5G is driven by their need for ultra-reliable, low-latency communication.

n = 241; Source: *North America Government and Education Buyer Intelligence Survey 2024,* IDC, October 2024

Increased Network Traffic Requires Tighter Security

5G Plays a Critical Role in Delivering Mission Success But Requires Substantial Security Efforts

Cybersecurity and privacy are top concerns among federal agencies when it comes to adopting 5G.

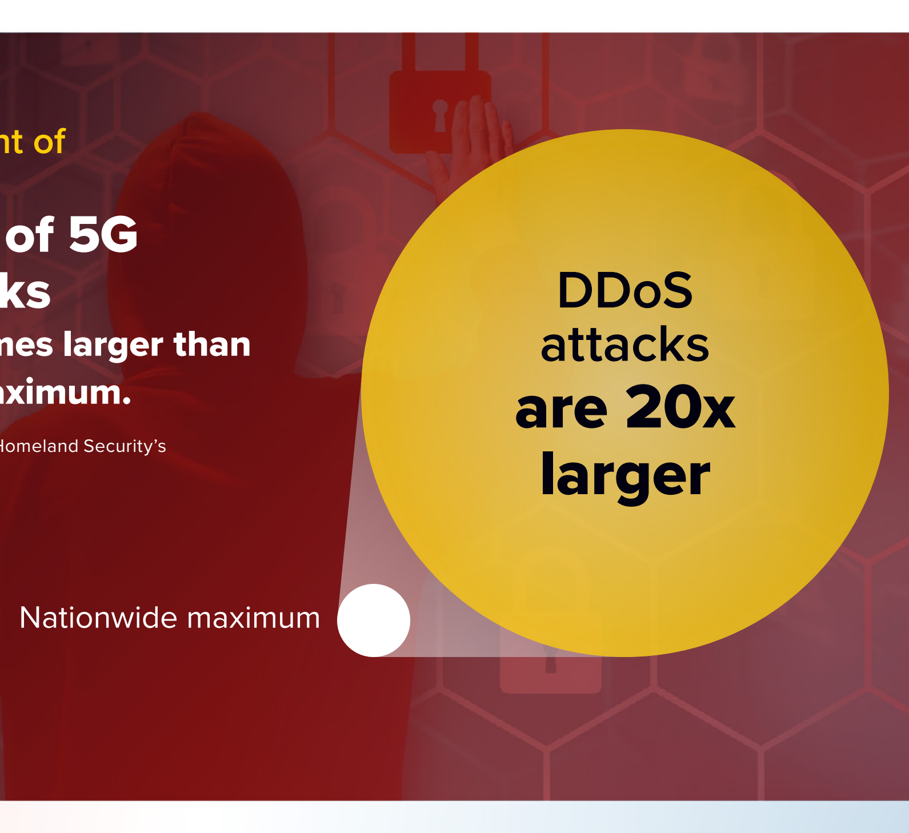
n = 241; Source: *North America Government and Education Buyer Intelligence Survey 2024,* IDC, October 2024

Nearly 35% of federal agencies
say that managing an expanding attack surface and evolving threat landscape area
are top challenges in terms of connectivity.

n = 241; Source: *North America Government and Education Buyer Intelligence Survey 2024,* IDC, October 2024

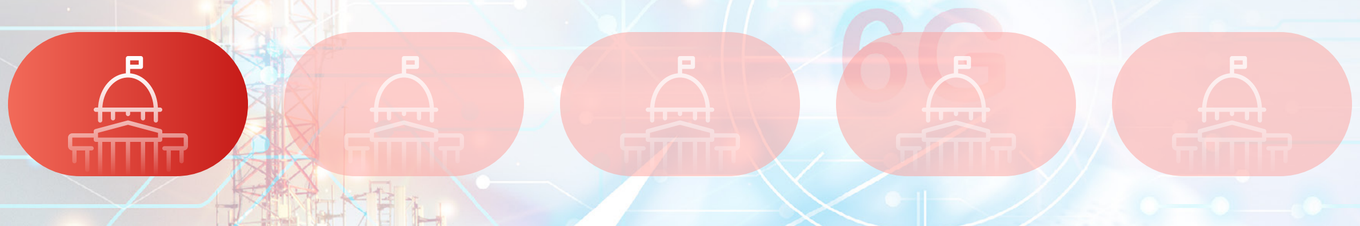
According to the Department of Homeland Security (DHS),
the characteristics of 5G enable DDoS attacks
at a scale potentially 20 times larger than the average nationwide maximum.

Source: 5G Impacts on Cybersecurity, Department of Homeland Security's Public-Private Analytic Exchange Program, 2023



Improving Operations with Precision, Integration, and Analytics

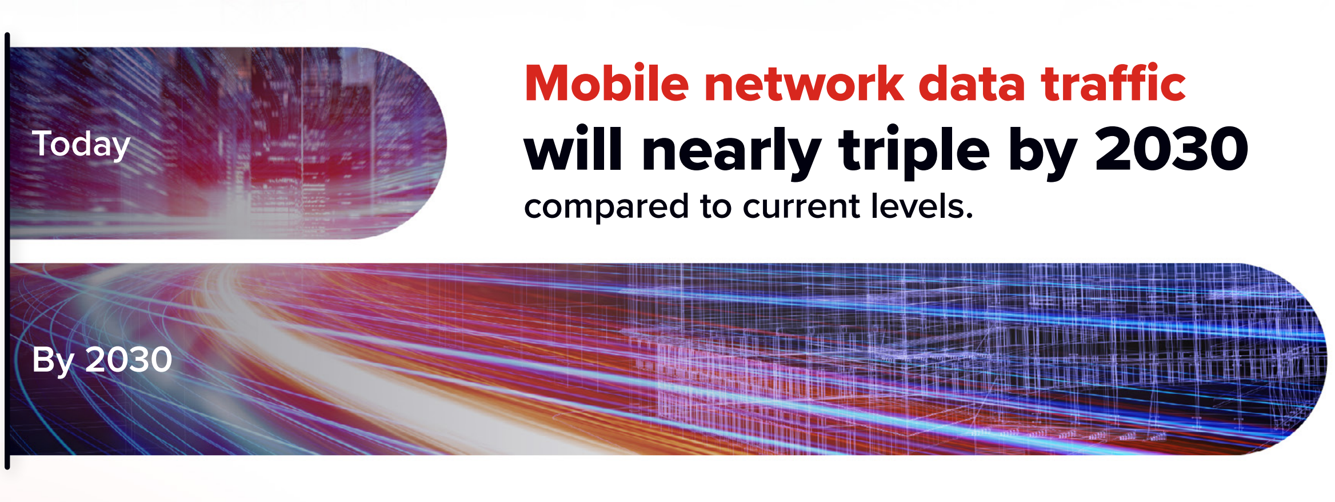
5G-Delivered AI Is Improving Performance and Accuracy for Homeland Security Operations



Only 1 in 5 (20%) federal agencies
are looking to improve positioning precision gains with 6G by 2030.

n = 241; Source: *North America Government and Education Buyer Intelligence Survey 2024,* IDC, October 2024

Agencies need more automation to monitor and analyze growing data sets.



Mobile network data traffic will nearly triple by 2030 compared to current levels.

Source: Ericsson Mobility Report, November 2024

More than one-quarter (27%) of federal agencies
consider instantaneous data transmission the most exciting functionality of 6G.

n = 241; Source: *North America Government and Education Buyer Intelligence Survey 2024,* IDC, October 2024

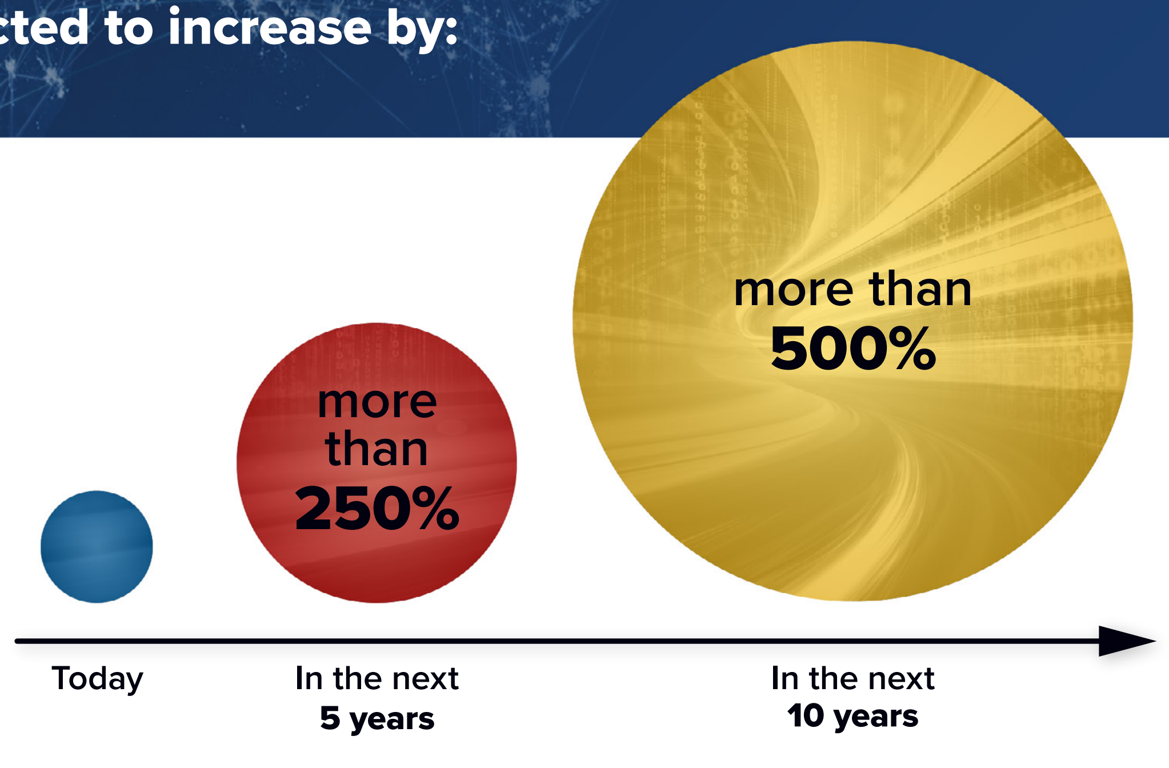
Ensuring Spectrum Access Is Key to 5G Adoption

The DHS Needs Direct Access to Low-, Mid-, and High-Band Spectrum to Achieve Mission Success

Spectrum availability and management are the second-highest concerns
among federal agencies as a challenge to 5G adoption.

n = 241; Source: *North America Government and Education Buyer Intelligence Survey 2024,* IDC, October 2024

According to one estimate,
data traffic on macro cellular networks is expected to increase by:



Source: National Spectrum Strategy, November 2023

There is no end in sight as the MITRE Corporation expects a **100x increase in the density of connected devices from 5G to 6G.** This requires better spectrum efficiencies and adaptive routing protocols.

Source: Path to Smart 6G Spectrum Access, MITRE Corporation, May 2022

Spectral efficiency
IS THE TOP EXPECTED BENEFIT OF 6G
for federal agencies:

n = 241; Source: *North America Government and Education Buyer Intelligence Survey 2024,* IDC, October 2024

Enhance Homeland Security with 5G Today

Advance Public Safety and National Security Within the DHS with 5G Connectivity, Training, and Infrastructure Modernization

Security modernization is a key parallel.
61% of federal government respondents
say their agency has applied
zero trust principles
to 5G networks.

n = 86; Source: *Industry Tech Path Survey 2024,* IDC, August 2024

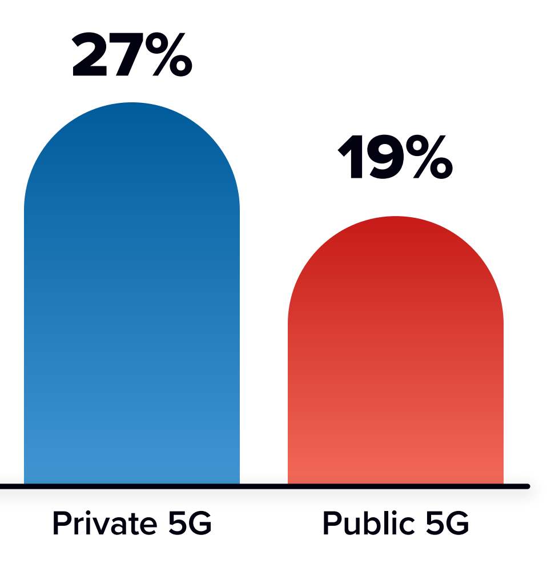
Aid in hiring and training.

More than half of federal employees believe that their organizations **do not have the right positions to build, manage, or procure AI.**

Source: AI and Tech Talent Task Force Report, April 2024

Address issues quickly.

Over the next 12–18 months, federal agencies are
PRIORITIZING 5G INVESTMENTS:



n = 241; Source: *North America Government and Education Buyer Intelligence Survey 2024,* IDC, October 2024

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Message from the Sponsor

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First responders face many communication challenges, including network congestion, limited bandwidth, and coverage gaps. Current broadband solutions that rely on older 4G LTE technology limit advanced capabilities.

T-Priority from T-Mobile introduces the nation's first 5G network slice dedicated exclusively to public safety, offering unprecedented priority access on the nation's most advanced 5G network. With faster 5G speeds and 40% more 5G capacity, T-Priority empowers first responders with advanced tools like drones, real-time video streaming, and IoT sensor integration — dramatically enhancing situational awareness when it matters most.

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