SOLUTION BRIEF

# Extend, Ensure, and Secure Your Network with Fortinet Secure 5G/LTE

## Executive Summary

**As enterprises enable digital innovation by embracing IoT and mobility technologies, direct internet access at branch sites, and SD-WAN, secure and flexible 5G/LTE connectivity is critical. Without it, business needs and service-level agreements (SLAs) may not be met due to a lack of connectivity or interruptions that can be caused by various reasons.**

Fortinet delivers innovative and proven secure wireless WAN and private cellular solutions. Together, FortiExtender gateways and FortiGate Network Firewalls deliver reliable, high-performance cellular networks that are fully integrated with the Fortinet Security Fabric. This lets you quickly and easily deploy the right 5G/LTE solution for your needs, combining cellular, secure SD-WAN, and next-generation firewall (NGFW) controls that can be managed in a single pane of glass.


"5G enterprise and automotive IoT services connections will reach 427 million worldwide in 2032."[1]

## Common Connectivity Challenges

As enterprise networks evolve to support transformative applications at the branch and beyond, challenges such as the following may need to be addressed:

- **Limited availability:** Wired broadband options, such as cable, DSL, and fiber, are not always available at remote branch sites. Wired options cover only 52% of rural locations, leaving 48% of rural locations without internet.[2] In addition, if wired options are present but become damaged, typical ISP repair times can average two months, leaving branches disconnected from the network.
- **Network downtime:** Organizations that offer digital experiences often must commit to SLAs with stringent uptime requirements of more than 99.999% availability. Relying on a single ISP for edge connectivity can leave organizations or their suppliers violating these agreements. And, typical high-availability architectures requiring duplicate appliances for each site can become cost-prohibitive at scale.
- **Wi-Fi obstacles:** Sites that require wireless access may experience challenges deploying Wi-Fi for proper coverage and connectivity hand-offs. Industrial and IoT sites, public safety and emergency services, and large venues require very low latency connections or wider wireless access with fewer appliances involved.
- **Harsh conditions:** Extreme hot and cold climates and damp and dusty environments pose a physical threat to traditional IT infrastructure. Standard appliances are not equipped to operate in these conditions and will fail. This leaves branch offices in these areas disconnected from the main network, resulting in poor end-user experiences and increased cyber risk.
- **Expanded attack surface:** While transformative applications such as direct internet access can help improve the overall network experience while cutting costs, incorporating more internet egress points technologies can expose the enterprise to new cyber risks. A secure 5G/LTE solution, backed by AI-powered security and threat intelligence, can help protect networks from known and previously unknown threats.

## Key Features

Fortinet secure 5G/LTE solves many challenges associated with distributed and IoT networks. Our wireless WAN and private 5G/LTE solutions are flexible, simple to deploy, and secure. Fortinet secure wireless WAN and private 5G/LTE solutions offer various cellular deployment options to fit your specific needs. In addition, only Fortinet offers seamless 5G/LTE integration, secure SD-WAN, and protection from cyberthreats. That means our solutions deliver optimal application experiences while protecting your network from advanced threats.

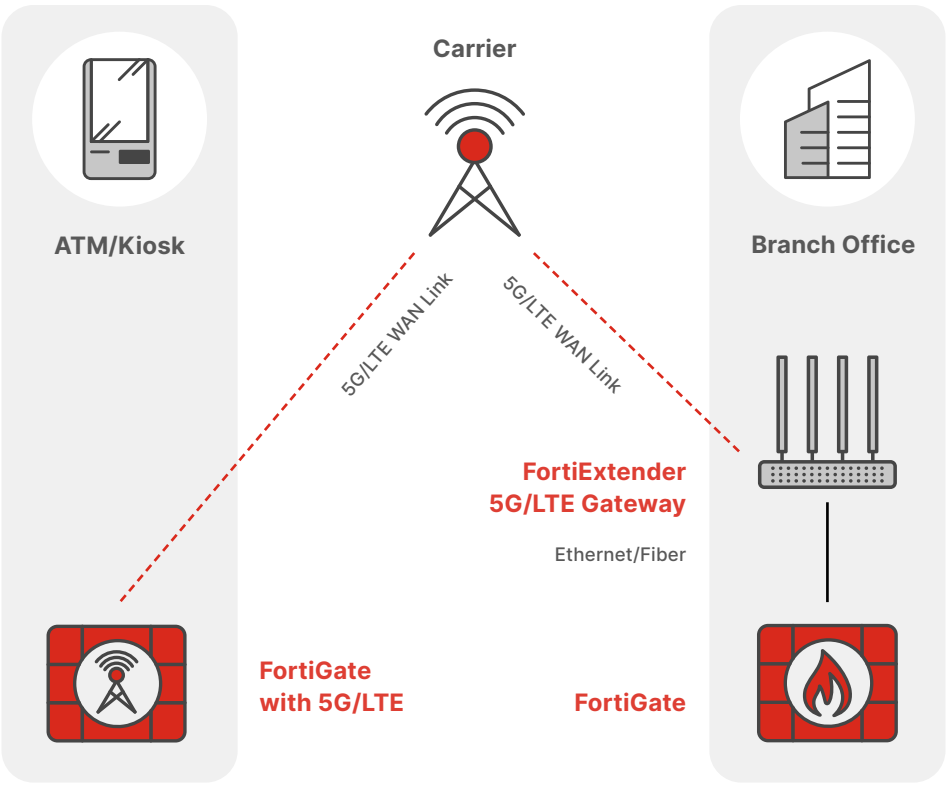


Figure 1: Example FortiExtender deployment

FortiExtender cellular gateways and FortiGate Network Firewalls can be deployed in nearly any branch or mobile scenario, offering dual SIM and dual modem 5G/LTE options for optimal business continuity, as well as ruggedized options to withstand the harshest deployment conditions. With Fortinet secure wireless WAN and private 5G/LTE solutions, you get:

- **5G/LTE wireless WAN:** You can extend your edge network beyond wired limitations and deploy a cellular-first strategy with various 5G/LTE options. These range from cellular adapters that can extend for the best signal with minimal attenuation to integrated 5G/LTE firewalls for a streamlined, single-appliance solution ideal for ATM, kiosk, and microsite deployments.
- **High availability:** Fortinet offers a variety of 5G/LTE appliances to suit your specific needs. Dual-SIM products provide cellular failover via active-passive connections, while dual-modem products enable active-active cellular connections for high availability and cellular load balancing. Both device types enhance business continuity beyond what's possible with wired options.
- **Private 5G/LTE:** Many Fortinet 5G/LTE products support band 48 CBRS for private 5G/LTE architectures. Private 5G/LTE offers wireless access that generally has lower latency and wider reach than traditional Wi-Fi. These solutions typically work best in industrial and IoT environments, large stadiums and campuses, and first-responder and public-safety environments.
- **Ruggedized options:** FortiExtender 5G/LTE gateways and FortiGate 5G/LTE firewalls come in a variety of ruggedized form factors so that you can extend your edge network to branch sites regardless of harsh conditions. Fortinet 5G/LTE products are rated IP64 to IP67, protect against extreme high and low temperatures, and provide dust, splash, and even submersion protection. Our products are also certified to protect against vibration.

## Key Benefits

Fortinet secure wireless WAN and private 5G/LTE solutions can benefit enterprise networks by greatly enhancing your ability to build flexible, secure edge networks while enhancing overall business continuity and stakeholder experiences. With FortiExtender cellular gateways and FortiGate NGFWs, you'll get:

- **Better reliability:** Up to 5x more reliability at branches by adding cellular failover or active-active cellular WAN connections. You'll improve overall business continuity and the end-user experience.
- **Drastic reduction in breaches:** Fortinet products are fully integrated with the Fortinet Security Fabric and powered by our FortiGuard AI-Powered Security Services. Our wireless WAN and private 5G/LTE networks are secured by industry-leading security, such as network firewalling, zero-trust network access, IDS/IPS, and URL, DNS, and content filtering.
- **Increased IT team productivity:** Fortinet delivers simple-to-use management options, such as FortiManager and FortiExtender Cloud, as well as streamlined automation capabilities and extensive training and certification programs.

Worldwide revenues for the 5G and 4G/LTE Enterprise Wireless WAN market (formerly referred to as the 4G/LTE and 5G Router & Gateway Forecast) will reach $5.5 billion in 2027.[3]

## Summary

Fortinet secure wireless WAN and private 5G/LTE solutions help extend, ensure, and secure your enterprise network so that you can deliver an excellent user experience while implementing digital transformation initiatives. Only Fortinet offers wireless WAN and private 5G/LTE solutions fully integrated into a comprehensive Security Fabric that includes industry-leading SD-WAN and security solutions.

[1] Kay Sharpington, Chad Eschinger, Peter Middleton, "Forecast: Internet of Things, Endpoints, and Communications, Worldwide, 2021 – 2032 4Q23 Update," Gartner, December 22, 2023.

[2] Chris Pearson, "Closing the Digital Divide With 5G Fixed Wireless Access," 5G Americas, accessed January 18, 2024.

[3] "Despite Current Economic Headwinds, IDC Forecasts 5G and 4G/LTE Enterprise Wireless WAN Market to sustain Growth Over the Forecast Period, Reaching $5.5 Billion in 2027," IDC, May 22, 2023.

FORTINET

www.fortinet.com



January 24, 2024 6:15 PM
2521644-0-0-EN