

FORECAST INTERNATIONAL

Transforming Telecommunications

Optimizing the DoD's Communication
Networks to Tackle Tomorrow's Threats



INTRODUCTION

The U.S. Department of Defense (DoD) faces the difficult task of responding to a list of evolving threats and is increasingly challenged to keep pace with the demands of modern operations, where high-speed, low-latency connectivity is essential. The DoD must be able to count on reliable and uninterrupted lines of communication to carry out critical tasks, such as real-time data sharing, precise resource allocation, and immediate threat response. Yet, the DoD can often face obstacles like network congestion, latency issues, and limited scalability that can hinder mission effectiveness. Legacy network architecture, while functional, can be difficult to scale as needed, can lack the capacity to fully support the latest advancements in mission-critical technologies, and can be vulnerable to cyber threats. More than just an effort to strengthen national security, upgrading our military’s network architecture will enhance decision-making, improve mission effectiveness, and ultimately save lives.

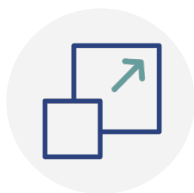
WHAT IS PRIORITY NETWORK ACCESS?

Priority network access refers to a feature on a network that dynamically allocates bandwidth based on changing needs. This allows certain authorized users—military personnel in this case—to gain preferential access to the network during high-traffic situations, effectively shifting these users to the front of the line for network resources and ensuring they can communicate effectively even when the network is congested. Without priority access, network congestion during emergencies could prevent military personnel from communicating critical information.

THE CASE FOR PRIORITY NETWORK ACCESS

BENEFITS

Priority access networks offer several benefits that provide significant advantages in performance, reliability, and security, making them imperative for critical operations.



Scalability

Through dynamic bandwidth allocation, priority access networks offer an improved network configuration that adapts to changing needs. These advanced networks can scale up how much bandwidth is allocated to priority users, providing greater network capacity when needed most. The ability to prioritize bandwidth for mission-critical applications is vital in high-pressure scenarios where delays can jeopardize mission success.



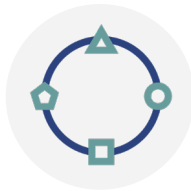
Speed

By shifting priority users to the front of the line for network resources, priority access networks guarantee low latency, high-speed connectivity for essential users when the need is greatest. Access to faster network speeds means quicker response times and the ability to coordinate in real-time.



Continuity

Giving priority access to essential users also means that any non-essential network users can be removed or have their access to the network limited. Priority access prevents service disruptions caused by civilian traffic surges or adversary attempts to degrade network availability. This network decongestion results in uninterrupted lines of communication, seamless connectivity, and operational continuity.



Versatility

Priority access networks integrate seamlessly with emerging technologies like 5G, cloud computing, and edge devices, meeting growing data demands while supporting modernization. They also enhance interoperability, allowing diverse systems and allied forces to communicate and collaborate effectively.



Security

Priority access networks offer advanced security features, including zero-trust architectures, encryption, and real-time threat detection, protecting sensitive data from increasingly sophisticated cyberattacks. This resiliency ensures operational continuity even during disruptions or electronic warfare attacks.

WHY DOES THE DOD NEED PRIORITY ACCESS?

The DoD needs priority network access to meet the demands of modern operations, where speed, reliability, and security are paramount. Contemporary military operations require rapid information sharing and coordination across disparate units in order to effectively respond to threats. Priority access to the network guarantees that critical information quickly reaches decision-makers and warfighters, even in high-traffic network conditions.

Unlike legacy systems, priority networks provide access to uninterrupted bandwidth and low-latency connectivity, especially during high-stress scenarios when rapid response is crucial. This facilitates improved data sharing, rapid resource allocation, enhanced situational awareness, and ultimately, improved command and control. This capability is vital for decision-making and operational success in dynamic and contested environments.

Additionally, the DoD has become increasingly reliant on data-intensive communication tools to maintain an edge on the battlefield. While advantageous, technological innovations can also increase network demand. Priority access networks support the integration of emerging technologies like 5G, cloud computing, and edge computing, enabling the DoD to harness the full potential of data-driven operations.



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As the DoD relies more and more on data and devices, the risk of unauthorized access by bad actors grows. Priority networks also provide enhanced cybersecurity to protect sensitive military data from cyberattacks. As adversaries increasingly target network vulnerabilities, having a system designed to defend against sophisticated threats is critical for maintaining national security.

By transitioning to priority network access, the DoD can enhance its operational efficiency, reduce vulnerabilities, and maintain technological superiority, ensuring that critical missions are executed effectively and securely in an ever-evolving threat landscape.

EXAMPLE: THE NATIONAL GUARD'S ROLE IN EMERGENCY RESPONSE

The National Guard can be called upon to respond to local or state-wide emergencies and disaster relief efforts. During these situations, soldiers and airmen of the National Guard must coordinate effectively and quickly with law enforcement, emergency medical services, firefighters, and other local response efforts. Priority access networks are invaluable during these situations, providing uninterrupted, low-latency communication networks through which to allocate resources and disseminate critical information, such as incident updates, victim locations, and hazard assessments. Additionally, the increased network capacity supports the use of technologies like surveillance drones, body-worn cameras, and remote medical consultations.

For example, the National Guard can be deployed to an affected area after a hurricane. In this situation, they rely on drones for aerial assessments and key data applications like real-time mapping to guide their operations. However, networks become congested as residents use them to contact loved ones and stream emergency updates. Priority network access ensures that the National Guard has reliable access to critical data and communication, allowing them to perform their relief efforts efficiently despite an overloaded network.



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At T-Mobile, we understand the critical demands placed on public safety and defense agencies. T-Priority helps ensure your calls, texts, and data take precedence during moments of high network congestion, delivering the connectivity you need. Whether you’re on the front lines of an emergency or coordinating day-to-day tasks, our technology helps ensure that your communications are uninterrupted and prioritized.

We offer outcome-driven solutions designed to enhance the efficiency and effectiveness of public safety and defense operations. From deployment to onboarding and ongoing care, T-Mobile provides dedicated support at every stage. Our team of public safety experts works closely with agencies to customize solutions that meet your mission objectives, delivering exceptional value and continuous support throughout the lifecycle of your operations.

CONCLUSION

By providing uninterrupted access to scalable, high-speed connectivity, priority access networks can ensure streamlined operations, reduce vulnerabilities, and enable the DoD to respond swiftly and effectively to evolving challenges. Understanding this, the DoD must leverage these advanced networks to equip our armed forces with the best possible tools needed to face the threats of tomorrow and ensure mission success.

ABOUT



About Forecast International:

Forecast International, a GovExec platform, sets the industry standard for accurate market forecasting, research, and consulting. Our experienced analysts compile, evaluate, and present accurate data for decision-makers in the world's aerospace, defense, electronics, and power systems industries. For over 50 years, Forecast International has provided actionable intelligence that reduces uncertainties and makes the future as predictable as possible.

For more information, visit our website at <https://www.forecastinternational.com>.



About T-Mobile for Government:

T-Mobile for Government is a division of T-Mobile dedicated to serving public sector organizations. It delivers wireless communication solutions, including 5G connectivity, IoT applications, and emergency response tools. Focused on reliability, security, and cost-effectiveness, T-Mobile for Government supports government agencies in enhancing productivity, modernizing operations, and ensuring seamless connectivity for critical services.

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