

## The key to creating more flexible 5G networks

Software-based 5G systems will enable agencies to rapidly adapt to changing demands and truly modernize communication systems



**Rishi Bhaskar**

JMA Wireless

**T**HE USE CASES FOR 5G infrastructure are increasingly diverse, particularly for the Department of Defense.

Mission-critical activities require high throughput, high reliability and high availability. In addition, DoD is pursuing a long-term strategic plan to modernize the IT infrastructure at its military bases.

JMA Wireless has been involved in multiple 5G programs, two of which are top of mind for DoD: modernizing warehousing and logistics and modernizing the flight line. Both use cases are very different and demand a tremendous amount of flexibility in their communication infrastructures.

### ENDLESS POSSIBILITIES AND REAL-WORLD OUTCOMES

Software-driven solutions are the key to achieving that flexibility. Companies like JMA Wireless offer a 100% 5G software platform that enables applications to be deployed rapidly. A 5G software solution provides the flexibility to add network features in response to real-time application and use case requirements. When we add modern applications to a flexible software-based 5G network solution, the possibilities are endless.

JMA Wireless embarked on a project a couple of years ago to help bring 5G to the Marine Corps Logistics Base in Albany, GA. We were part of a team that deployed a 5G network and added applications to enable officials to modernize warehousing and logistics at the base.

As a result of those improvements, the base has reduced labor costs by 61%. Additionally, it used to take three to five days for items to move from the dock to the shelf. That timeline has been slashed to about 36 minutes as the combination of the 5G network and updated application environment drives major efficiencies in logistics operations.

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### INVESTING IN OPEN AND INTEROPERABLE SOLUTIONS

The 4G world was made up of single-vendor solutions. By contrast, 5G requires an ecosystem, and it's critical that industry partners complement one

another and deliver robust solutions. Along those lines, the government has undertaken a strategic initiative to encourage the development of open radio access networks (ORAN).

ORAN enables multiple providers to innovate at each layer of the network stack. Through the National Telecommunications and Information Administration's Public Wireless Supply Chain Innovation Fund, the government is investing in projects that focus on developing ORAN solutions with American corporations.

The long-term goal is to regain U.S. technology leadership in telecommunications. Given that 5G is becoming the central nervous system for both commercial and government enterprises, it is clear that owning the supply chain and advancing our technological leadership are essential for our country to be the leading provider of the next generation of communication infrastructure.

As a 5G provider, JMA has invested in ORAN for many years. We deployed a full ORAN system at Naval Air Station Whidbey Island in Washington state, where we're modernizing the flight line to return aircraft to the skies as fast as possible. Ours is the first and only



ORAN network to operate in a mission-critical environment for DoD. Because of the high-performance, scalable 5G ORAN solution, applications such as connected maintainers, automated fuel replenishment tracking and rapid data offload are becoming a reality — all of which will reduce the time our aircraft are required to be on the ground.

DoD has invested in multiple silos of communication systems over the past

several decades. Now is the time to begin consolidating those silos onto a 5G ORAN platform that provides true mobility, security, performance and global economies of scale to lower the total cost of ownership and increase flexibility and agility well beyond legacy wireless technologies.

JMA Wireless is the only U.S.-founded and U.S.-owned company with 5G manufacturing in the United

States. It is part of our commitment to help the U.S. government achieve its modernization goals while restoring America's place as the unquestioned leader of the telecommunications industry. ■

**Rishi Bhaskar** is senior vice president and general manager at JMA Wireless.

For organizations who require interoperability, **no other RAN stacks up.**

**JMA**

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