

## A Growing Problem Solved by Quick Rollout of Wireless Network

By Stephen Ward, president, ShieldTech Systems, makers of SnapLink radio



**T**he contract of a large D.C. defense contractor with the Department of Defense (DoD) rapidly expanded, creating a need for more office and lab space.

Although space was found about a half-mile away, the contractor needed secure, interference-free voice and data communications between locations for 25 permanent engineers, 12 visiting engineers, two software labs and a training facility. They required access to three development networks, large file transfers, Internet and voice over Internet protocol (VoIP).

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Their search began with systems in the millimeter wave bands (20-300 GHz) because of their inherent security and interference-free point-to-point capabilities. Licensed systems were also eliminated to save time. That left only the 24 GHz and 60 GHz unlicensed bands and E-band systems, which are easily licensed but costlier. Both 24 GHz and 60 GHz frequency bands provided excellent signal security and assurance. In addition, a half-mile link was within easy range of 24 GHz systems and within usable range for 60 GHz systems.

### The Solution

The decision came down to features, performance and price. The defense contractor was able to find several systems at 60 GHz with plenty of bandwidth (typically 100 Mbps or more), acceptable encryption schemes, *(continued on page 12)*

### The Challenge

In similar past situations, this defense contractor had leased expensive trunk lines from the local exchange carrier, built a server room, and added servers and switches to provide services to local users, at a total cost of over \$50,000. More importantly, the traditional approach took months to complete.

The defense contractor had avoided a wireless solution in the past because of security and reliability concerns. In this case, business pressures forced them to take a second look.

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and prices well below traditional deployment costs. However, there was a concern with latency when encryption was added to the 60 GHz system. VoIP was a critical service for this contractor but it is not very tolerant of excessive system latency. The 24 GHz product had the bandwidth and acceptable encryption without the latency of the 60 GHz systems. In addition, the cost of the 24 GHz system was less than half that of 60 GHz systems. The 24 GHz SnapLink™ radio from ShieldTech Systems was chosen.

### The Result

The deployment of SnapLink, including the assembly of the roof mounting hardware, took less than half a day. With this connection, the contractor was able to provide four-digit dialing VoIP between locations, access to all the required development networks, company e-mail and Internet service. The rapid deployment, security and flexibility of the SnapLink system enabled the defense contractor to expand their capabilities to match the growth of its DoD contract.

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