

## Connecting Public Safety Facilities with Packet Microwave to Deliver Higher Capacity and Improved Reliability at a Lower Cost



### CUSTOMER

Part of the Rockford metropolitan area, Winnebago County is the third most populous region in Illinois. In addition to managing the local government and public safety facilities of the county, Winnebago County has an active economic development mandate to promote balanced growth and develop new industry beyond their traditional reliance on the manufacturing sector.

### CHALLENGE

Winnebago County operates a communications backbone network interconnecting several critical government and public safety facilities, including a 911 contact center, justice center, county courthouse, and county health department. An aging network infrastructure, comprised of unlicensed microwave and costly leased lines, was not providing the reliability or scalability needed to support the county's increasingly bandwidth intensive video and internet connectivity applications. With plans to upgrade additional facilities with the latest public safety infrastructure and applications, Winnebago County was in need of a significant overhaul to their transport network.

### FAST FACTS

#### Customer:

- Winnebago County, Illinois

#### Solution Partner:

- Urban Communications, Inc. (URBANCOM.NET)

#### Application:

- High capacity redundant packet microwave ring transporting voice, data and video traffic for municipal and public safety facilities

#### DragonWave Solution & Features:

- Horizon Quantum
- Multi-gigabit capacity
- Ring/mesh support for carrier-grade reliability
- Ultra-low latency
- Advanced QoS support with 8 levels of prioritization

The new solution had to meet several important requirements established by the County. The first priority was to deploy a future-proof solution with scalability beyond 1 Gbps to ensure plenty of extra capacity to support future growth. The critical nature of their public safety network required a highly reliable carrier-grade solution. The County was also under pressure to deploy quickly with minimal disruption to their facilities and staff.

Given the capacity requirements, it was determined that either a fiber, microwave or eband solution would be needed. With links in excess of a mile, the eband solution was eliminated, and the cost and difficulty of adding to existing fiber facilities was considered a non-starter. Additionally, Winnebago County officials were impressed with the path diversity and redundancy that microwave could deliver.

**“The demands on our network were increasing significantly every month. The unlicensed microwave systems and leased lines we had in place were becoming a major bottleneck that needed to be addressed quickly and cost effectively. Because much of our traffic is essential to public safety and the court system, we also needed a solution that would provide a high degree of resiliency and redundancy.”**

- August A. Gentner  
Chief Information Officer, Winnebago County Illinois

“Whether deploying a customer link for high speed transit of data, voice or video surveillance, we have found that Dragonwave provides the most robust and reliable solution. The feature set of the Horizon Quantum line is unmatched by any other solution we have seen in the market. As a broadband carrier, designer and operator of private governmental microwave networks, we have found Dragonwave to be one of the most reliable and cost effective technologies we work with.”

– Ed Urban III, President & CEO, Urban Communications, Inc.



HORIZON QUANTUM

## SOLUTION

After a comprehensive evaluation process conducted by Winnebago County’s network communications team, DragonWave’s Horizon Quantum packet microwave solution was selected for its unique features and unmatched scalability.

<b>High Availability</b>	• Multiple protection options including 1+1 and ring/mesh architecture for carrier-grade availability
<b>Scalability</b>	• The Horizon Quantum with dual channel operation delivers multi-gigabit scalability
<b>Bandwidth Acceleration</b>	• DragonWave’s Bandwidth Accelerator – the industry’s only wire-speed bulk data compression technology – can boost throughput by up to 150%
<b>Rapid Deployment</b>	• Horizon systems can be deployed in weeks, compared to 6 months or longer for wired solutions
<b>Ultra-low Latency</b>	• Ideal for real-time applications including voice and video

## SUCCESS STORY

Looking for a turnkey provider, Winnebago County worked with Urban Communications, a platinum DragonWave partner, who completed the installation of the solution and is now managing the ongoing operation of the Winnebago County network.

Winnebago County now has more than 50-times the scalability of their previous transport solution. Their advanced packet microwave ring interconnects vital government and public safety facilities including a 911 contact center, justice center, courthouse, economic development center and county health department with expansion to additional locations being explored.

“After comparing several microwave solutions, it became clear to us that the Horizon Quantum delivered the best in terms of capacity, redundancy, reliability and cost per bit. We now have a robust gigabit speed system that rivals the reliability and speed of fiber and was deployed at a fraction of the cost of building out additional fiber on our network.

The thoughtfulness and precision demonstrated by our solutions provider, Urban Communications, demonstrated great acumen in the wireless microwave business segment. The Winnebago County Department of Information and Technology and myself are very pleased with the support and skill provided by Urban Communications.”

– August A. Gentner  
Chief Information Officer  
Winnebago County Illinois