

>THIS IS THE WAY

>THIS IS NORTTEL™



## Success Story

This is the way we jump-start economic development in small-town communities

*Marshalltown encourages economic development by launching the first WiFi city network in the State of Iowa.*

### Customer

Located on the Iowa River, Marshalltown is centrally located in the US, between three of Iowa's largest cities - Des Moines, Cedar Rapids and Waterloo – and within a short five hours of three major metropolitan areas – Chicago, Minneapolis and Kansas City. A variety of industries ranging from die casting to virtual reality engineering contribute to the diversity and the economic health of the community.

### The situation

Like many small towns, with a small population and located in a rural community, Marshalltown realized that it needed to differentiate itself to both attract new investment and migration to the city as well as to retain the businesses and residents that it had. While many towns have looked at large-scale fiber deployments to bring broadband services to their communities, Marshalltown was convinced that wireless technology was a better choice – primarily because it cost less due to no requirement for a large capital outlay for laying fiber, and because wireless technology gives users a level of freedom that wired technologies cannot; to be connected wherever their business or personal needs take them.

### The solution

#### City-wide mobility solution based on wireless mesh networking.

To meet its broadband needs, the Marshall Economic Development Impact Committee (MEDIC) in conjunction with critical communications system integrator RACOM, selected a wireless mesh network from Nortel to initially bring end-user WiFi services to a 20 square block area in the downtown core. The network consists of six WLAN Access Point 7220s supported by a Wireless Gateway 7250, giving free public WiFi services to local residents and businesses. Users roaming the downtown core can now access city information, retrieve email, surf the web and more. While primarily designed for outdoor access, the indoor service coverage has shown great results with some local businesses now using the wireless mesh network as their primary business broadband communications service.



## The results

### > Ubiquitous service across the

**downtown core:** The new broadband network delivers mobile Internet access to users in the downtown core. Users are experiencing an average of 800 kbps of bandwidth in the area.

### > Ability to support public safety

**workers:** While the primary purpose of the initial network deployment was public access for businesses and visitors, a critical future consideration for the MEDIC was the ability to use the same network infrastructure to support the emergency response teams and public safety needs. Traffic prioritization features available through the mesh solution allow the network to differentiate high priority emergency response traffic from low priority public Internet Access. Over the next year Marshalltown is trialing the system to support the delivery of data communications for emergency

response teams, including video surveillance, as well as access to local, state and national databases for relevant information like outstanding warrants.

> **Future-proof investment:** While Marshalltown deployed the new mobility solution as a competitive differentiator for the town; it now has a network in place that supports a wealth of additional functionality and the ability to scale as the town's requirements evolve. Initial plans see the network expanding to cover the entire county, which would result in a network quadruple the size. Wireless LAN IP Telephony solutions can add voice services to the current data infrastructure. Virtual private networking capabilities will enable the city to expand coverage to both public and private access – allowing local businesses to securely use the network for their business communications needs. Additionally, the local hospital is investigating leveraging the deployment to bring public Internet access to the healthcare campus.

**“By providing ubiquitous mobility services to city departments, businesses and residents we are going to establish ourselves as the technology capital of the state”**

Mike Miller, Chairman of Marshall Economic Development Impact Committee

## Conclusion

With the network that Marshalltown has put in place, it has established itself as a leader in technology innovation for community networking and serves as a model for other small communities in and outside the state. Although alternative mobility solutions were available, Marshalltown and RACOM were eager to work with Nortel due to its proven history as a leader in building and delivering cost-effective, secure, resilient mobile networks for both enterprise and carrier customers.

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