



> A RURAL COMMUNITY GOES WIRELESS IN A BIG-CITY WAY

NORTEL



Case Study

Carlsbad Department of Development

The customer

Since its incorporation in 1966, the Carlsbad Department of Development (CDOD) has focused on promoting the economic and general welfare of the citizens of the City of Carlsbad and South Eddy County. With a membership of more than 90 members, this private non-profit agency represents chief executive officers in industry, business and finance, the City of Carlsbad, Eddy County Board of Commissioners, New Mexico State University-Carlsbad, College of the Southwest and the Carlsbad Chamber of Commerce.

The City of Carlsbad and Eddy County are located at the foothills of the Guadalupe Mountains, on the edge of the Chihuahuan Desert just 180 miles away from the Mexican border. The city, with its tree-lined streets, public parks and recreation areas



“Nortel’s wireless mesh is providing our connection to the outside world, helping us attract new business, increase tourism and give our residents an enhanced quality of life.”

— Robert Detweiler,
Executive Director, Carlsbad
Department of Development

— including the municipal beach and greenway along Lake Carlsbad — originated as an oasis, known as “Pearl on the Pecos.” The area boasts more parks and recreational facilities than any other city in New Mexico. Citizens enjoy a beautiful River Walk, beach and boat docking area along the Pecos River which runs through the heart of the city. The new Pecos River Village Conference Center is also located in the River Walk area — making the downtown area the perfect place to mix business with pleasure.

The challenge

CDOD was looking for innovative ways to attract new industry, expand and retain local businesses, and enhance quality of life for the city’s more than 27,000 citizens.

“In rural communities like ours, one of the biggest challenges is finding a secure, reliable way to do business and connect with the rest of the world,” says Robert Detweiler, Executive Director, CDOD. “Without that connection, you’ll not only be unsuccessful attracting new business, but you’ll also risk losing the ones you have.”

This is why growing business and enhancing quality of life in Carlsbad is crucial to its long-term growth plan. Through the injection of commerce come new jobs, exciting business opportunities, and ultimately, a growing, thriving populace. If jobs and opportunities don’t exist, residents — in particular, recent graduates and others entering the workforce — will leave the city to earn a living.

In an effort to improve the competitiveness and well-being of its community, CDOD began to look at bringing extended broadband services to the area. The organization’s hope was that the initiative would help drive the economic development necessary to realize several downstream benefits, including job creation and retention, the recruitment of new industry and expanded business opportunities.

Solution

“Outdoor mobility” comes to town — in the form of a state-of-the-art wireless broadband network from Nortel.

The City of Carlsbad, Nortel and local service provider Windstream partnered to develop a state-of-the-art wireless broadband telecommunications network that offers connectivity and communication services equal to any metropolitan center in the world.

Nortel’s Municipal Wireless solution provides a highly scalable and cost-effective network that can offer end users — whether they’re residents, local businesses or visitors to Carlsbad — secure, seamless roaming beyond traditional wireless LAN boundaries.

For anyone living, working or visiting Carlsbad, the solution means secure, reliable and fast mobile access from anywhere that the network provides coverage, including the town square, library, conference center and municipal tennis courts.

Thanks to the Nortel solution, a business meeting can take place at an outdoor café downtown; a student can cram for a mid-term in the library's beautiful park; and a tennis enthusiast can check e-mail in between matches. The town's conference center is also fully connected, inside and out, providing the ideal venue for meetings, seminars and conferences.

The network

The solution includes two Nortel Wireless Gateway 7250s and 10 Nortel Wireless Access Point 7220s.

> Nortel Wireless Access Point 7220

Using auto-discovery, self-routing and self-healing technology, a wireless mesh is formed among 10 Wireless Access Point 7220s located in various locations throughout Carlsbad and the surrounding area. This 7220 also acts as a WLAN Access Point for user access. The Wireless Access Point 7220 is positioned at an inside or outside venue such as the roof of a building or the top of a light or utility pole via a mounting kit, providing access and transport to the network for the mobile user.

> Nortel Wireless Gateway 7250

Two Nortel Wireless Gateway 7250s enable access to the Internet through the local service provider Windstream. The gateways cover the town square, the city's parks, library, tennis courts, courthouse commercial district and the River Walk — where the beach, convention center and a boat docking area are located. The Wireless Gateway 7250 also manages mobility within the mesh network. An end user that travels across the Community Area Network, moving from one access point to another, does so in a seamless and transparent manner — all managed by the Wireless Gateway 7250.

Results

Ready to compete

The network has been in place for a few short months, which makes tangible benefits difficult to pinpoint. However, it's just a matter of time, according to Detweiler. "Right now, just being in the position to say that we have this advanced technology in place, and that our community has embraced it, is proving to be an excellent marketing tool for us. Already we're seeing a new level of interest in the area." Residents and visitors on the network can enjoy anytime-anywhere mobile access, making their lives more efficient, allowing them access to stay in touch with work, pay bills or find information online, while they're watching their children's ballgames, or taking advantage of the city's many amenities such as parks, cafes, waterfront or businesses within the city.

Open for business

In addition to providing Carlsbad with a marketing advantage, the wireless network provides a valuable resource for the business community — whether local or in transit.

"The level of support we've received from the Nortel team has gone beyond our expectations. From the initial meeting stage, through design, implementation, support and maintenance, Nortel has been with us every step of the way. They've done an excellent job explaining the solution and how it could be integrated with the city's current infrastructure. Nortel made it easy to understand the technology and explain it to our local partners."

— Robert Detweiler, Executive Director,
Carlsbad Department of Development



“We do some work with the Department of Energy — and many of the department’s subcontractors who have traveled through town have taken advantage of this productivity-enhancing resource. Feedback has been extremely positive,” says Detweiler.

Enhancing life

For area citizens, the wireless network has brought communication and quality of life to a new level. Residents can enjoy anytime-anywhere mobile access, making their lives more efficient so they can focus on other things.

In the United States:

Nortel
35 Davis Drive
Research Triangle Park, NC 27709 USA

In Europe:

Nortel
Maidenhead Office Park, Westacott Way
Maidenhead Berkshire SL6 3QH UK

In Canada:

Nortel
195 The West Mall
Toronto, Ontario M9C 5K1 Canada

In Asia:

Nortel
United Square
101 Thomson Road
Singapore 307591
Phone: (65) 6287 2877

In Caribbean and Latin America:

Nortel
1500 Concorde Terrace
Sunrise, FL 33323 USA

Nortel is a recognized leader in delivering communications capabilities that enhance the human experience, ignite and power global commerce, and secure and protect the world’s most critical information. Our next-generation technologies, for both service providers and enterprises, span access and core networks, support multimedia and business-critical applications, and help eliminate today’s barriers to efficiency, speed and performance by simplifying networks and connecting people with information. Nortel does business in more than 150 countries. For more information, visit Nortel on the Web at www.nortel.com.

For more information, contact your Nortel representative, or call 1-800-4 NORTEL or 1-800-466-7835 from anywhere in North America.

Nortel, the Nortel logo, Nortel Business Made Simple and the Globemark are trademarks of Nortel Networks. All other trademarks are the property of their owners.

Copyright © 2006 Nortel Networks. All rights reserved. Information in this document is subject to change without notice. Nortel assumes no responsibility for any errors that may appear in this document.



> BUSINESS MADE **SIMPLE**