



Customer Case Study

Boosting Business Development with Citywide Wireless Access

The City of Dublin, Ohio is using Cisco networking solutions to enhance business development, while providing better public safety and citizen services.

EXECUTIVE SUMMARY

- City of Dublin, Ohio
- Government
- Number of employees, 372 full-time employees, 400 part-time and seasonal employees

BUSINESS CHALLENGE

- Improve network access to attract businesses and support economic development.
- Help ensure public safety with mobile law enforcement and emergency applications.
- Enhance citizen services by enabling mobility and responsiveness of city employees.

NETWORK SOLUTION

- Cisco Wireless Mesh Network delivers secure network connectivity throughout city core for businesses and city employees.
- Cisco Unified Communications provides manageable, feature-rich telephony and call handling.
- Cisco Self-Defending Network safeguards sensitive city communications and data.

BUSINESS RESULTS

- Secure network connectivity lets businesses in historic district access network services for minimal cost.
- Mobile IP phone service enables city employees to work more efficiently and reduces costs of cellular voice and data.
- Software-based network administration makes device moves, adds, and changes more efficient and saves money.

BUSINESS CHALLENGE

The City of Dublin, Ohio has long enjoyed a reputation for outstanding quality of life and a vibrant business climate. Dublin is home to more than 3,000 businesses, and continually strives to create an attractive economic environment. Information technology plays an important role in Dublin's efforts to bring the best and most promising businesses to the city, and it was important to provide access anytime, anywhere.



"A major emphasis has always been enhancing economic development and establishing a significant tax base that will take us into the future," says Mayor Marilee Chinnici-Zuercher. "Access to technology is a key element of our strategy, because we have a lot of small businesses that are global in their missions and purposes."

"We believe that providing better access to the Internet, via our network infrastructure, will bring companies to the city, and encourage them to grow their business here," says Jane Brautigam, city manager.

Networking technology also plays an important role in public safety. Dublin prides itself on its safe environment and superb law enforcement, and wanted to empower its police department with wireless networking that could support video monitoring and other applications.

"Our mobile cruisers faced a challenge, because our old wireless system limited our bandwidth capability," says Bob Schaber, network operations manager. "This made it time consuming to record and collect video from a police cruiser."

Because many of its critical business applications reside on the network, providing ubiquitous network access would also make city operations more efficient.

"Our city staff is quite spread out," says Dana McDaniel, Deputy City Manager/Director of Economic Development. "We have seven facilities throughout the city. Having a wireless system in place would help us communicate better and feel more connected."

The City of Dublin sought a wireless network solution that would be highly secure and accessible to help attract and support new businesses. To help city employees work more efficiently and improve their mobility, the solution would have to deliver the performance needed to support the city's phone, video, and data applications. At the same time, it would have to be easy to manage, as well as scalable to change and evolve as the city grew.

NETWORK SOLUTION

After evaluating several proposals, the city teamed with DHB Networks, Ltd., a Cisco® partner based in Dublin, to plan and implement its wireless network.

“We are very excited to work with a local company to deploy the solution, and are very proud of the partnership that we have formed with them throughout this year-long process,” says McDaniel.

DHB installed a Cisco Wireless Mesh Network solution, featuring Cisco Aironet® 1500 Series Wireless Mesh Access Points and Cisco 3200 Series Wireless and Mobile Routers. The solution integrates smoothly with the city’s existing wired network, and lets Dublin extend services and applications throughout the city without sacrificing security or manageability.

“The ability to integrate the solution with our existing Cisco infrastructure and segment traffic into VLANs for security and network management was really key,” says Schaber.

Dublin is the first central Ohio city to initiate a citywide wireless system. The first phase of the deployment provides secure wireless network access throughout four square miles in the center of the city, including its core business district, city hall, and police department.

Wireless network access is complemented by DubLink, a fiber optic infrastructure that provides enormous bandwidth capacity throughout the city’s business districts.

“We believe our Cisco deployment will be ideal for companies that have mobile employees. Companies won’t be tied to having the employees in cubicles. They have the ability to have their employees anywhere, and still be connected.”

—Dana McDaniel, Deputy City Manager/Director of Economic Development, City of Dublin

“This high-speed network provides instantaneous access to the global marketplace, and businesses have the opportunity to either choose their own service provider or lease fiber,” says McDaniel.

The Cisco wireless infrastructure enables Dublin’s field staff—such as police, engineering, and building officials—to remotely access the network applications that they need, anywhere within the coverage area. To support phone and multimedia applications, DHB also deployed the Cisco Unified Communications solution, enabling the city to run voice, video, and data over its converged IP network. City employees can place and receive phone calls using Dublin’s wireless network, to work and collaborate more efficiently.

“Cisco Unified CallManager lets us take our voice over IP infrastructure and extend it over the wireless network,” says Schaber.

“It lets our employees be more mobile, and use features like four-digit dialing—without the cost of cell phones.”

Cisco Unified Communications also lets the city support rich media applications to improve public safety and citizen services. For example, Dublin has built a mobile command center that provides live application access to law enforcement mobile data terminals, as well as on-demand video monitoring where they can deploy cameras.

Security is always an important concern for government and public safety, so DHB implemented a Cisco Self-Defending Network solution to safeguard private citizen and business data. The Cisco ASA 5500 Series Adaptive Security Appliance provides support for the latest available security and Virtual Private Networking (VPN) services. Cisco NAC Appliance enforces security policy compliance on every device accessing the wireless network, to help protect the network from viruses, spyware, and other threats. Dublin also uses the Cisco Security Agent to safeguard the servers that will manage the City’s registration portal, and the Web site that handles customer credit card information. Cisco PIX Security Appliances provide stateful-firewall protection as well.

“We use Cisco PIX® Security Appliances for all our external connectivity,” says Schaber. “The system also gives us the ability to improve physical security, by allowing or denying access to buildings in real time.”

BUSINESS RESULTS

By providing widespread access to secure, high-speed network services, Dublin strengthens its position as a forward-looking city that understands the challenges that today’s businesses face.

“We believe our Cisco deployment will be ideal for companies that have mobile employees,” says McDaniel. “Companies will not be tied to having the employees in cubicles. They have the ability to have their employees anywhere, and still be connected.”

“Our Cisco network helps make businesses aware that we are a community that cares about technology and is welcoming them to our community,” says Brautigam.

City leaders find the wireless network is especially helpful to small, unique businesses that are prevalent in Dublin’s historic district.

“Many businesses cannot afford leased T1 lines, and they see our wireless solution as a value for their organization,” says McDaniel. “It is affordable, and they can buy their own equipment, install it outside their buildings, and create hot spots for their clients. This is really going to help the small businesses in town to compete.”

Extending wireless network access also helps city employees to work more efficiently when they are outside the office. For example, Dublin’s work-order system lets field crews enter data while they are at a job site, instead of having to return to the office to input data or update records. “Building inspectors are able to fill out building permit reports from the job site,” says McDaniel. “They can do their job more efficiently in the field using their laptops, instead of having to return to the office, download photos, and write reports.”

“It is also a big help for service employees who are in remote parts of the city, such as snowplow drivers and landscape workers. Wireless connectivity lets them communicate better and do their jobs more effectively,” says Brautigam.

“The Cisco wireless solution lets us reduce costs for cellular voice and data,” says Schaber. “We can also eliminate the cost of running additional fiber lines for new projects. The more connectivity that we can establish in the areas where we work, the more efficient we are going to be.”

PRODUCT LIST

Routing and Switching

- Cisco 3200 Series Wireless and Mobile Routers

Security and VPN

- Cisco PIX 500 Security Appliances
- Cisco NAC Appliance
- Cisco ASA 5500 Series Adaptive Security Appliance

Voice and IP Communications

- Cisco Unified CallManager

Wireless

- Cisco Aironet 1500 Series Wireless Mesh Access Point

Dublin is improving the responsiveness and awareness of its public safety organizations as well. Using the City’s new mobile command center, live video can be viewed from police cruisers or from a dispatch center.

“The mobile command post has five IP phones,” says Schaber. “We are using a variety of wireless connectivity methods, so that we can simply place the command center anywhere that it is needed and have access to phones, video feeds, and any other features that we need.”

Dublin is saving time and money on daily network management too, handling network moves, adds, and changes with its software-based Cisco Unified CallManager.

“One of the biggest difficulties for a traditional private branch exchange is change management, which is a manual process,” says Schaber. “Cisco Unified CallManager makes it far easier for us to make changes and give people the ability to move from one desk to another.”

NEXT STEPS

Dublin is rapidly completing the deployment of the first phase of its project, delivering wireless networking services to the city center. Future phases will extend the network to deliver connectivity to schools and other locations.

“Our network will help schools stay connected and become virtual campuses that can communicate in real time—even though they are spread out over a 26-square-mile area,” says McDaniel.

Dublin also plans to utilize its network to help foster scientific and technology research in central Ohio. “Our Central Ohio Innovation Center is something that you will hear about for the next 10 to 20 years,” says Chinnici-Zuercher. “It will be a medical research and cancer treatment facility with a lot of research and development, and we anticipate that network capacity will play a vital role there.”

With its scalable Cisco solution, Dublin can continue its innovative partnership between the public and private arenas, to meet citizen and business needs well into the future.

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This customer story is based on information provided by the City of Dublin, Ohio and describes how that particular organization benefits from the deployment of Cisco products. Many factors may have contributed to the results and benefits described; Cisco does not guarantee comparable results elsewhere.

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