Building the foundation for a Smart City

The City of Doral built a hyperconverged infrastructure on Dell Technologies to power Smart City initiatives and create new and improved digital services for its residents.

Business needs

When the City of Doral decided on a Smart City strategy to boost service quality, enhance citizens’ experience and better support residents and businesses, it needed the right technology infrastructure to make the effort possible and manageable.

Solutions at a glance

- Dell EMC VxRail HCI
- Dell EMC Isilon storage
- Dell EMC PowerEdge servers
- Dell EMC PC solutions
- Dell Technologies Services
  - ProSupport for PCs
  - ProSupport for Enterprise

Business results

- Attracts more-diverse businesses and families to the city
- Obtains certifications that attest to the effectiveness of Doral’s Smart City leadership
- Improves municipal services
- Provides a foundation for creating and evolving Smart City initiatives
- Enhances citizen experiences, starting with stronger security

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Gladys Gonzalez
IT Director, City of Doral
One of 34 municipalities in Miami-Dade County, Doral is located close to Miami International Airport and just 13 miles away from downtown Miami. The city is part of the Miami Free Trade Zone, one of the largest foreign trade zones in North America. Doral is home to approximately 70,000 residents.

Doral was growing quickly and hoped to attract more young families and a greater diversity of businesses in addition to the logistics and warehousing companies that value the proximity to the airport. That required boosting the quality of municipal services and modernizing the technologies that support them. As a first step, Doral replaced legacy hardware with Dell Technologies client and server solutions. Gladys Gonzalez, IT director for the City of Doral, says, “I had a very good experience with Dell Technologies at the City of Miami Beach, and Dell Technologies was the first provider I contacted after I came here.”

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Technology and partnership to enable Smart City transformations

City leadership realized that the city had a unique opportunity to advance constituent services and improve residents’ experiences. Doral would launch a Smart City initiative that would rely on digital tools, for example, to enhance the safety of citizens and police officers or to simplify constituents’ interactions and communications with municipal agencies. “Our Smart City strategy aims to transform city operations and infrastructures to engage and serve citizens, attract new businesses, deliver educational excellence, and accelerate innovation,” says Gonzalez. “Key to that effort is collecting, displaying and analyzing data, which requires the right hardware.”

After consulting with Dell Technologies, Doral decided to create a hyperconverged infrastructure (HCI). It acquired Dell EMC VxRail infrastructure appliances together with Dell EMC Isilon storage to accommodate video surveillance and other data volumes. Dell Technologies teams assisted with the implementation at the city’s two data centers. Describing the city’s engagement with Dell Technologies at a higher level, Gonzalez says, “We augment our ability to transform Doral’s technology infrastructure through a strategic partnership with Dell Technologies. Through this partnership, we gain proven solutions that allow us to innovate and drive transformative initiatives.”

For Doral, Dell Technologies services and guidance shorten the time-to-benefit of its technology acquisitions and resolve issues promptly. Gonzalez says, “We always reach out to Dell Technologies to help us validate and refine our strategy.” Carlos Olivares, assistant IT director at the City of Doral, comments, “We are very happy with the turnaround we get from Dell Technologies ProSupport. Our account executives have been fantastic in escalating any concerns that we wanted to address quickly.”
Efficient infrastructure serves data management goals

Doral’s HCI facilitates the city’s evolving Smart City efforts. Olivares says, “Choosing Dell EMC VxRail as our HCI foundation pays off in extreme performance, resilience and flexibility. We can process, store and analyze data on an intelligent, automated infrastructure that serves our immediate and long-term needs.”

At the same time, the city reduced the workloads of IT managers. “It’s hugely beneficial for our efficiency to run our HCI on VxRail,” Olivares adds. “We gave back a lot of time to the systems administrators, who can manage all resources centrally instead of logging in to various systems and storage area networks to troubleshoot any issues.”

Delivering optimal experiences with city services

Improving citizen’s experience with municipal entities and services is another key element of Doral’s Smart City strategy. For example, the city will make it possible to engage with all departments involved in development services online, without traveling to or waiting at city offices. “Our goal is a streamlined process for an optimal customer experience for our residents and businesses, facilitated by the Dell Technologies infrastructure,” says Olivares. “We will make citizen engagement intuitive and easy, with efficient communication across electronic records, performance tracking, consistent data entry and compliance with statutory requirements.”

Improved citizen services and increased safety for police officers

On its Dell Technologies HCI, Doral realizes a portfolio of Smart City initiatives, including one called “Quality of Place.” Because the safety and security that Doral residents experience are key to their quality of life, the initiative emphasizes security measures, which have intense data-gathering and processing workloads. For example, Doral tracks vehicle traffic to deter crime. “Dell devices integrated with license plate readers have already read more than 10 million license plates and identified 3 percent of them as concerns,” says Gonzalez. “This effort will eventually encompass the city’s entire periphery.”

Within the HCI-enabled “Quality of Place” initiative, Doral will also implement new systems that will provide more environmental and background information to police officers responding to incidents. Location details and facial recognition enhanced by video analytics and artificial intelligence will help them act faster and strengthen their safety.

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Showcase for Smart City successes

In just three years, Doral has implemented 40 percent of the Smart City technology measures identified by the National League of Cities. Urban planners and Smart City experts have noticed Doral’s successes, and the city’s visibility garners attention from other municipalities. Recently, the World Council on City Data (WCCD) awarded Doral ISO 37120 Platinum Certification for the third time, a recognition for cities that set a high standard for collecting and sharing data and using it in decision making. In addition, Doral was also one of the first cities to receive WCCD ISO 37122 certification for its Smart City initiatives.

Doral is already preparing a Smart City 2.0 strategy, which will focus even more on enhancing customer service on the city’s digital infrastructure. As a certified Smart City, Doral has become highly attractive to families and organizations that have traditionally not had a strong presence there, such as medical service providers. The city’s population has grown by 77 percent during the last eight years. “With 14,746 businesses per 100,000 population, Doral has a WCCD ISO 37120 indicator of 5.6—better than Los Angeles, Amsterdam and London,” Gonzalez points out. “Our Smart City successes help the economic development team invite companies to come here. This would not have been possible without Dell Technologies.”

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