

# Quantela and AWS-Based IoT Solution Empowers the City of Coral Gables to Advance Economic Growth and Increase Quality of Life for Citizens



## Executive Summary

AWS Partner Quantela assists the City of Coral Gables, Florida, by deploying Quantela Traffic and Lighting on AWS to help the city leverage IoT data to provide better services to citizens, drive efficiencies, reduce operating costs, and perform predictive infrastructure maintenance. The Quantela IoT platform runs on AWS technology, including Amazon EC2 and Amazon S3.

## Delivering City Outcomes

[Quantela](#), an [Amazon Web Services \(AWS\) Partner](#), provides outcomes-based business models to empower cities and communities around the world with the right digital infrastructure to deliver their economic, social, and environmental objectives. From Sioux Falls to Sevilla, Abu Dhabi to Assam, Quantela's solutions are centered around an artificial intelligence (AI)-based platform that integrates the data from multiple Internet of Things (IoT) sensors and other infrastructure to enable city leaders to make data-driven decisions that will help the city to run more efficiently and effectively and improve quality of life for citizens too.

"City officials don't succeed by buying technology, but rather by enhancing the livability in their cities, improving the quality of air, reducing fatalities, improving traffic, and more. This is what we do for them. We don't deliver technologies and leave customers with the burden of how to unlock the real value of the data. At Quantela, we hold ourselves accountable to deliver the outcomes they are seeking," says Amr Salem, chief executive officer at Quantela.

## Deploying an Urban Analytics AI Solution on AWS

The [City of Coral Gables](#), Florida, is one example where city leaders are turning to Quantela to do more with their infrastructure and the data captured. The city, which hosts nearly 50,000 residents, was collecting IoT data from various sensors located at intersections, building lights, and other sources. "We wanted to use IoT data to improve the quality of life for our citizens," says Ayanes Apolinar, IT systems manager at the City of Coral Gables. "We knew that once we had all the data, we were going to need to integrate it and provide analytics on it to learn how to improve safety and help local businesses generate more revenue. We needed to find a technology partner to bring everything together."

Coral Gables engaged Quantela to implement a new urban analytics AI solution, which runs on [Amazon Elastic Compute Cloud](#) (Amazon EC2) and uses [Amazon Simple Storage Service](#) (Amazon S3) to store IoT data for analysis. The platform ingests data from a range of sources, including traffic and public safety sensors, city cameras, multimodal sensors that detect vehicles and bicycles, and environmental sensors that monitor air and water quality. The platform normalizes the data and gives city managers and administrators a single dashboard view, accessible on their computers and mobile devices from anywhere in the world.

The city also leverages the Quantela Lighting and Quantela Traffic solutions, which provide smart LED streetlights throughout the city's downtown area and employ cameras as sensors for counting vehicles, pedestrians, and available parking spots.

## Using Data to Deliver Real Value to Citizens

The complete Quantela offering, built on AWS technology, gives Coral Gables a single-pane-of-glass platform that provides clearer visibility into city operations. "Using the Quantela and AWS solution, we now have a centralized application that integrates information from many different sensors and data points throughout the city. It gives us a comprehensive view of what's going on in the city so we can make better decisions to provide more effective services to our citizens," says Apolinar.

## About the City of Coral Gables



The City of Coral Gables is a city of about 50,000 residents located in Miami-Dade County, Florida, southwest of downtown Miami. The city is one of the first planned communities in the US, inspired by the City Beautiful Movement of the 1890s and early 1900s.

## Driving Efficiencies and Business Promotion

Using Quantela's outcomes-based solutions, Coral Gables is able to generate new business revenue. "When we first implemented the Quantela Traffic solution and its pedestrian counters, it coincided with an event in the busy downtown area," says Apolinar. "We used statistics gathered from the sensors and the Quantela platform to show downtown businesses the potential revenue they could generate based on the increased foot traffic. For example, businesses could look at the data and determine what times would be best to offer promotions."

The Quantela platform is also helping customers to reduce operating costs through predictive maintenance. For instance, when a city must repair a streetlight, a single light repair may require up to three maintenance visits. Using Quantela Lighting based on AWS, a repair can be reduced to a single trip. "We can be proactive instead of reactive using this solution," says Apolinar. "The Quantela platform can help us to see the estimated time remaining before LED lights stop working, based on usage and burn rate. We never had this capability before."

These cost savings, through maintenance as an example, can free up capital to invest into other city projects or smart city initiatives. The City of Coral Gables is currently exploring further use cases to drive efficiencies. "The real value in our Quantela solutions is that they are scalable and adaptable. Cities can start with one outcome and the cost savings or revenue generated from one solution can free up investment to add additional use cases to solve other challenges," says Del White, senior vice president of global sales at Quantela. "To build for the future, it is important for cities to act now. They must go beyond single smart city solutions to create a sustainable ecosystem that enables real desired outcomes. For example, smart parking can reduce up to 30 percent of traffic by providing real-time available parking spots through mobile applications and platforms, and both smart waste management and lighting, by sending real-time maintenance alerts, will cut down the number of trucks on the road. Traffic, waste, energy costs, and more can all be linked together to unlock a world of opportunity within the city."

## About Quantela

Quantela Inc., founded in 2015, is a technology company that offers outcomes-based business models through the digitization of urban infrastructure. Today, working with cities and towns, utilities, and public venues, the Quantela team of over 400 experts offer a vast array of outcomes-based business models through technologies like digital advertising, smart lighting, smart traffic, and digitized citizen services.

The Quantela logo is displayed in a white rectangular box. The word "Quantela" is written in a bold, black, sans-serif font.