Quantela

Enhancing City Resilience with Data Solutions

Facts about Baguio

It was originally a small mountain village called "Kafagway", before it was discovered in 1900

It is home to the largest strawberry farm in the Philippines, the La Trinidad Strawberry Farm. This farm is open to visitors who can pick and eat fresh strawberries

Total population of Baguio City as of May 1, 2020 was 366,358

About the Customer:

Perched at 1,470 meters above sea level in the Luzon Island mountains, Baguio City stands out among the Philippines' 7,000+ islands. Known as the "City of Pines" because of its vast pine forests that cover the surrounding mountains. It is also considered to be the nation's summer capital; its elevated location and tropical pine forests offer a cool retreat.

The Challenge

The city of Baguio faced multiple challenges in maintaining safety, responding to emergencies, and ensuring a healthy environment for its residents.
One of the key challenges for Baguio City was disaster resources management and crime monitoring. Another major challenge was monitoring the environmental parameters within the city. The city of Baguio needed a unified platform that would streamline data collection, enable real-time monitoring, and foster data-driven decision-making across these critical domains.

How Quantela Helped

With the help of Quantela, Baguio City adopted Quantela's ICCC platform that harnessed the power of data solutions for crime monitoring, disaster resources management, and air quality sensors. The platform offered the following capabilities:

> "*Quantela serves as our technology partner for our initiatives for Baguio Smart City projects. We deeply value their impressive efforts in successfully deploying the Integrated Command and Control Centre (ICCC) Application. This ICCC platform stands as a unified solution, facilitating the seamless integration of near-real-time information from diverse system sources. This in turn gives city authorities a more comprehensive understanding of the urban environment today. By utilizing this knowledge, intelligent choices may be made, resulting in the effective use of urban resources and improved performance for the city as a whole.*"

Baguio City Council

Crime Index:

From 2019 to 2023 –
7636 cases

7194 closed cases

442 in progress cases

8105 identified victims

8989 identified suspects

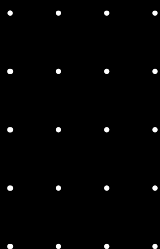**Top 05** crime states available

Disaster Resource Management Metrics:

1756 disaster resources required

423 disaster resources available

Air Quality Metrics:

54.53% Average AQI decrease from last months

Data-Driven Crime Monitoring: The platform allowed real-time tracking of crime cases, enabling law enforcement to identify patterns and trends in criminal activities. The city could proactively deploy resources to reduce crime rates and enhance public safety by analyzing crime data over different timeframes.

Optimized Disaster Resource Management: The platform continuously monitored disaster resources, assessed their availability, and identified gaps. It provided data-driven recommendations for resource allocation during emergencies, ensuring efficient disaster response and recovery efforts.

- **Real-time Air Quality Insights:** Integrated air quality sensors continuously monitored environmental parameters, such as AQI, SO2, NO2, PM2.5, and PM10. The data collected enabled the city to pinpoint the causes of air quality issues and implement targeted interventions to improve air quality and protect public health.

Outcomes Delivered

- **Enhanced Public Safety:** Data-driven crime monitoring allowed law enforcement agencies to respond proactively to criminal activities, reducing crime rates and improving public safety.

- **Efficient Disaster Response:** The city's Disaster Management office could make data-driven decisions during emergencies, ensuring the effective allocation and utilization of resources. This resulted in quicker and more efficient disaster response efforts, saving lives and minimizing damages. 100+ disaster resources were added after the platform helped to monitor the deficit in the disaster resources.

- **Healthier Environment:** The real-time air quality data provided valuable insights into pollution levels and their sources. The city could take targeted actions to mitigate pollution, leading to improved air quality and a healthier environment for its citizens. Quantela's solution identified SO2 as the main pollutant.

- **Collaborative Efforts:** The unified data platform fostered collaboration between different city departments, enhancing overall city resilience and responsiveness to various challenges.

- **Optimized Resource Allocation:** Data-driven resource allocation enabled the city to optimize the use of resources, ensuring that they were efficiently utilized in response to crime, disasters, and pollution.

Deployment Screenshots

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Resource Details ⌄

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	S.No	Name	Total Quantity	Available Quantity
	1	Aluminum Pole Folding Stretcher	4	4
	2	Ambulance	1	1
	3	Ambulance	1	1
	4	Ambulance, L 300	1	1
	5	Antenna	7	4
	6	Automatic External Defibrillator	4	4
	7	AVR	1	0
	8	Base Radio	4	7

Ambulance — 3 Quantity, 3 Available	**Automatic External Defibrillator** — 4 Quantity, 4 Available
Portable Radio — 6 Quantity, 5 Available	**Oxygen Tank** — 216 Quantity, 0 Available
Stretcher — 26 Quantity, 20 Available	**Full Body Harness** — 10 Quantity, 9 Available
Rescue Vest — 20 Quantity, 20 Available	**Light Tower** — 3 Quantity, 3 Available
Life Vest — 20 Quantity, 20 Available	**Boots** — 50 Quantity, 11 Available

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Select Sensor
All ▾

AQI
41 μg/m3

AQI -54.53% Decrease From Last Month

Most Polluted
Kisad Rd near Baguio City Library

Main Pollutant
SO2we

AQI
0 ———●——— 100

Air Quality
Good

AQI: 41.33 μg/m3
Health Impact
Minimal Impact

Pollutant Value
353.14

Category
0

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