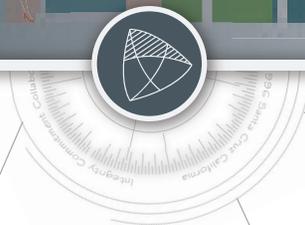# SMART CITY SOLUTION
FOR URBAN DATA & PLANNING

THE CHALLENGE

Urban centers across the globe are undergoing rapid changes and growth. Cities are becoming smarter, not just in the technology used, but how city planners design the spaces where we live, work, and play.

In order to properly plan a city, the rules that govern it, and the ability to enforce the laws, city managers need the right tools and data.
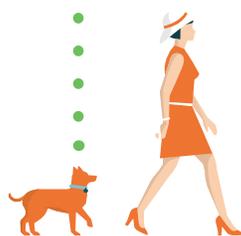
Not Just Smart—Healthy

Noise pollution is still pollution and affects the health of citizens. Noise over 60 dB can cause stress and elevated heart rates. Lower-income zones have historically higher levels of industrial noise, disproportionality affecting the health of its citizens.

Outdated Legislation

With increasing mixed uses in our cities, city planners and managers struggle to create laws and ordinances that are fair and enforceable.

The Idea

Prototype and test an urban noise monitoring system that allows city officials and citizens to respond to noise issues in real-time.

55dB

WHAT WE DID

By using VANTIQ, we were able to quickly build a platform for detection of city sounds and noise pollution, empowering citizens and officials to act on the noise data and create a better city.

LOUD
LIVE OUTSIDE URBAN DATA

A productOps Innovation Project

Highlights

- Real-time analysis of city noise including levels and classification

- Allows city officials to respond to noise violations in real time

- Machine learning using AWS SageMaker

- Allows public to report noise violations in mobile app

Give us your hardest problem

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Measure

We created audio sensors that collect data in real-time and send the data to VANTIQ and AWS SageMaker for storage and machine learning classification.

Decide

We used VANTIQ as the intelligence platform to analyze the data and make decisions in real-time using custom workflow applications and collaborations.

Act

We used the VANTIQ platform to send notifications and allow users to collaborate and take action using the VANTIQ mobile application.

Plan

We created reports based on historic data to allow managers and third party users to plan and improve real-world systems and operations.

The Solution

By using a reliable platform partner we were able to rapidly develop **LOUD**—*Live Outside Urban Data*, a platform for sensing and responding to noise issues in real-time.

How It Works

1. Edge devices record sound and measurements
2. VANTIQ platform processes sounds and manages workflows
3. AWS SageMaker machine learning classifies noises
4. VANTIQ Client dashboards and mobile applications allow users to interact with the data and collaborate in real-time

Benefits

- Improve city quality of life
- Help companies reduce number of noise violations
- Help cities plan for the future based on data
- Help consumers make better choices based on the city's noise profile
- Provide cities with data to address low-income and low-health related areas

aws partner network

Advanced Consulting Partner

VANTIQ

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