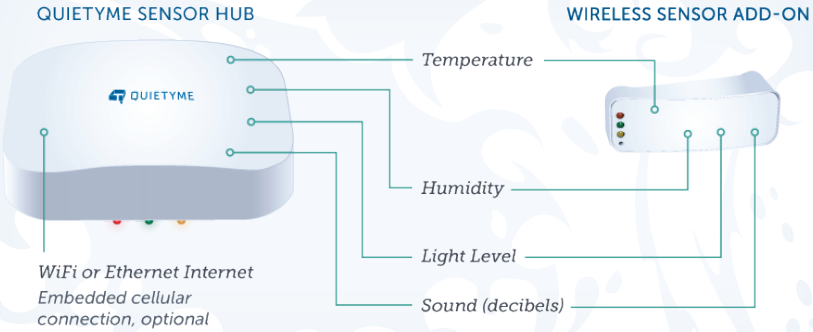
QUIETYME
Case Study

BARRAGE

OVERVIEW

Quietyme is an IoT vendor which provides sound sensors for each room in a building to customers, primarily in the healthcare and hospitality industries. By analyzing the data from the sensors in real time, Quietyme can alert customers to disruptive events that are disturbing the sleep environment of their buildings.



CHALLENGES

Quietyme's initial threshold-based analysis solution provided the ability to detect when sound in a given room exceeded a certain decibel level for a fixed amount of time. However, the thresholds could not distinguish the type of sound that was occurring, and a single, ongoing disturbance that repeatedly met the threshold could trigger the same alerts as a series of one-time disturbances. Each sensor was also analyzed independently, so a disturbance that affected multiple rooms could not be automatically identified as such.

Customers wanted a higher level of discrimination from Quietyme's notifications, but Quietyme's development team struggled to deliver advanced analytics efficient enough for real-time processing. This effort also took valuable time away from their other tasks, impeding Quietyme's ability to iterate quickly.

HOW BARRAGE HELPED

Barrage allowed Quietyme's experienced data analysts to describe the characteristics of the different types of noise events that they had observed in customer buildings. By using a characteristic-based approach, arbitrary thresholds are no longer necessary; disruptions can be identified at a wider range of decibel levels.

Barrage can also analyze multiple sensor streams and know about sensor proximity, so that a disturbance located in one room, but affecting multiple rooms, can be identified.

Noise events that could be resolved—such as loud conversations and ongoing alarms—were hooked up to Barrage's when-X-then-Y real-time notification system, so staff at the customer location can act to resolve disruptive events. Noise events that cannot be addressed, such as thunder, no longer trigger alerts, saving customers time and energy.

RESULTS

Quietyme's customers received the sophisticated, pinpoint sensor analytics they needed. Quietyme no longer had to divert significant development time and effort to meeting customer demands for more sophisticated analytics; instead, their developers were empowered to discover new events and iterate faster than ever.

> "Before Barrage, we struggled to do even basic analytics in real time. Now it's easy to find what we need to find, even if the analysis is really sophisticated. I like to say that Barrage is Ctrl+F for sensor data."
>
> *– John Bialk, Quietyme CEO*