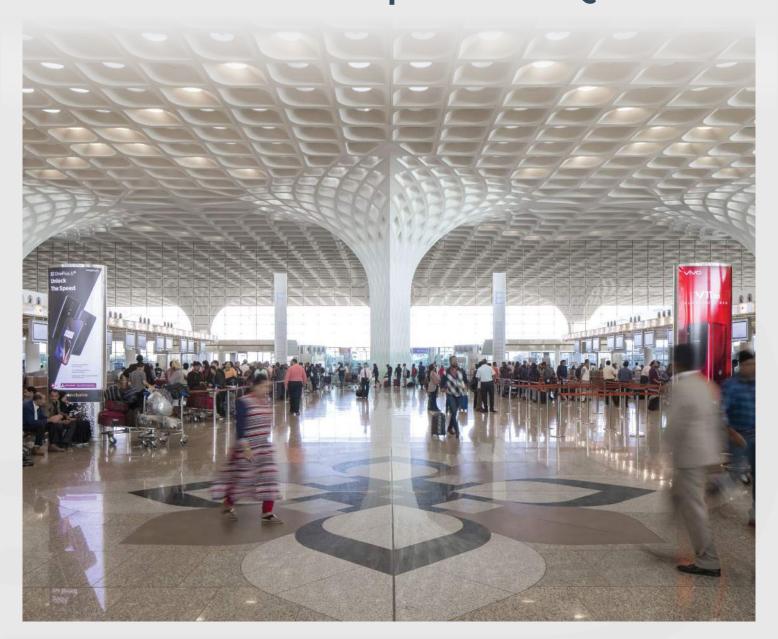# The Adani Group is Monitoring PM in Real-Time at Mumbai T2 Airport with AQBot PM

INTRODUCTION: *Ensuring Safe Air at Mumbai's Andheri T2 Terminal*

As India's aviation infrastructure expands, balancing development with environmental responsibility is more critical than ever. The Adani Group, one of India's largest infrastructure conglomerates, undertook construction activities at the Andheri T2 Terminal (Chhatrapati Shivaji Maharaj International Airport) to expand and enhance passenger capacity. While infrastructure development is critical, it comes with the challenge of managing particulate pollution caused by ongoing construction work.

To ensure environmental compliance, safeguard passenger health, and maintain operational efficiency, the Adani Group opted for Oizom's Aqbot PM, a robust, real-time particulate matter monitoring solution.

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THE CHALLENGE: *Managing Air Quality in a Critical Infrastructure Zone*

The T2 Terminal is a hub of continuous activity, from aircraft movement to passenger transit and cargo operation, and ongoing construction activity generates a significant amount of particulate matter (PM), which can pose respiratory risks and degrade indoor/outdoor air quality.

Key challenges faced by the stakeholders included:

1. **PM Monitoring and Management:** Due to ongoing construction, there was a need to track particulate matter with precise and real-time monitoring capabilities.
2. **High-density Footfall:** Terminal 2 sees a constant influx of passengers, which increases the need for reliable air quality monitoring to ensure comfort and safety.
3. **Regulatory Compliance:** Ensuring alignment with national environmental standards was crucial to avoid penalties and maintain green certifications.
4. **Installation in a Sensitive Zone:** Deploying equipment at an international airport demands minimal disruption and fast installation.
5. **Decision-making Without Actionable Data:** Prior to the installation, there was a lack of granular, real-time insights into dust levels impacting terminal operations.

In addition to these technical challenges, the Adani Group needed a compact, non-intrusive system capable of providing reliable data without requiring extensive infrastructural modifications.

THE SOLUTION: *Deployment of Oizom's Aqbot PM for Accurate Dust Monitoring*

Oizom deployed the Aqbot PM, a cutting-edge continuous air quality monitoring device specializing in measuring PM concentrations with high accuracy. This robust solution was integrated seamlessly with Envizom, Oizom's advanced cloud-based air monitoring platform.

1. **Real-time monitoring:** Engineered for continuous tracking, AQBot PM monitors in real-time and delivers accurate data for timely actions.
2. **Cloud-Based Visualization:** The integration with Oizom's Envizom platform allowed seamless access to real-time data, trend analysis, and compliance reports.
3. **Non-intrusive Installation:** The device's compact design enabled a quick and hassle-free setup at a high-security location like T2 without disrupting passenger operations.
4. **IoT Compatibility:** Aqbot PM's IoT-based design ensured remote accessibility and automation-friendly integration into existing systems.

INSTALLATION DETAILS

1 UNIT of AQBOT PM

5. **Proven Partnership Experience:** Oizom's past performance and smooth collaboration with Adani Group reinforced trust in solution delivery.

Adani Group valued their prior positive experience with Oizom, as well as the brand's commitment to technological feasibility and client-centric deployment.

THE TRANSFORMATION: *Oizom Empowered Operational & Environmental Efficiency*

Following the deployment of Aqbot PM at the T2 Terminal, the Adani Group witnessed tangible improvements in air quality management:

1. **Real-time Air Quality Data Access:** The team could access 24/7 dust concentration data via Envizom, improving transparency and control.
2. **Data-Driven Planning:** The insights helped facility managers adjust HVAC operations and maintenance schedules more efficiently.
3. **Regulatory Compliance Achieved:** With accurate particulate monitoring, the airport ensured alignment with CPCB and local environmental norms.
4. **Enhanced Passenger Experience:** Cleaner air and optimized internal environments contributed to improved traveler satisfaction.
5. **Predictive Alerts and Reports:** Custom alerts and daily reports enabled the team to anticipate and act upon dust level fluctuations quickly.

These capabilities have made environmental performance at the terminal more transparent and measurable, aligning operations with global best practices in airport management.

BROADER IMPACT: *Setting a Benchmark for Airport Air Quality Management*

Strengthening Sustainability Practices: The solution supports Adani Group's broader green goals by monitoring air pollutants at a granular level.

Scalable Smart Infrastructure: The success of the deployment opens doors for replicating the model across other Adani-operated airports.

Reinforcing Health and Safety Standards: Continuous dust monitoring ensures a healthier environment for staff and passengers.

Operational Intelligence via Envizom: With trend dashboards and downloadable logs, decision-makers are empowered with actionable intelligence.

CONCLUSION: *Trust, Technology, and Tangible Results at India's Premier Airport*

Adani Group, through Portus Ventures Pvt. Ltd., chose Oizom's continuous air quality monitoring solution to maintain air quality and enhance operational efficiency at the Andheri T2 Terminal. The decision was backed by Oizom's proven industry relationships, IoT-ready systems, and the powerful Envizom cloud platform. Installing Aqbot PM is more

than just a compliance measure—it's a step toward smarter, cleaner, and safer aviation infrastructure. This deployment reflects a high level of environmental responsibility and sets a standard for other critical infrastructure projects across the country.

Oizom is a company specializing in environmental monitoring solutions. They offer products to monitor air quality, weather conditions, and other environmental factors. Utilizing advanced sensor technology and data analytics, Oizom aims to provide actionable insights for construction, industrial compliance, and community awareness. Their solutions can be applied in various sectors including government, industries, and community initiatives.