CENTRAL

TRANSMISSION

MEDIUM

FOR STATE POLLUTION CONTROL BOARD

## INTRODUCTION

At Vepolink, we are dedicated to revolutionizing environmental compliance and pollution management in India. Recognizing the critical gap between vendors and State Pollution Control Boards (SPCBs), we have developed an innovative solution to simplify and streamline the transmission of pollution data.

Our app will serve as a central transmission medium, enabling vendors to seamlessly transfer pollution data from their client entities to SPCB servers. By acting as an intermediary, our app eliminates the complexities associated with direct integration for vendors, while working closely with SPCBs to enhance compliance, ensure accuracy, and introduce value-added features.

Beyond data transmission, our app empowers polluting entities and vendors with tools for maintenance management, calibration record-keeping, and hassle-free onboarding, fostering an ecosystem of improved transparency and accountability. Together, we aim to set a new standard in environmental governance, making compliance efficient and future-ready.

**Mission**

STATEMENT

The Central Transmission Medium (CTM) is an advanced software platform designed to act as an intermediary between state pollution control boards (SPCBs) and vendors responsible for collecting and transmitting pollution data from various entities, such as manufacturing plants, hospitals, or offices.

Instead of each vendor directly integrating with SPCB servers a process that is often complex, inconsistent, and prone to delays—the CTM serves as a unified data aggregation and transmission hub.

Vendors upload data collected from their client entities to the CTM, which then standardizes, validates, and transmits the data to the SPCB servers in a compliant and efficient manner.

**Proposed**

**O B J E C T I V E S**

**Seamless Data Transmission**

**Standardization and Validation**

The central transmission medium will be developed with these objectives in mind, which are tailored to benefit both the vendors and the State Pollution Control Board.

**Vendor and Entity Management Real-time Monitoring and Reporting Regulatory Updates**

**Scalability**

# CTM Benefits for SPCBs

### Enhanced Compliance and Oversight

01

CTM streamlines the data submission process, ensuring all entities and vendors adhere to pollution control regulations effectively.

### Reduced Workload

02

With data pre-processed and validated by CTM, SPCBs are freed from the task of handling errors or discrepancies in vendor submissions.

### Centralized Control

All pollution data across the state is available in one place, providing a comprehensive view of environmental compliance.

03

### Improved Decision-making

04

Access to real-time, high-quality data empowers SPCBs to analyze trends, enforce regulations, and design better pollution control strategies.

### Future-ready System

05

The CTM enables SPCBs to implement new features or policies with minimal disruption, making the system adaptable to evolving needs.

# CTM Benefits for Vendors

### Simplified Integration

01

Vendors no longer need to manage complex integrations with SPCBs or worry about frequent changes to SPCB server requirements.

### Cost Efficiency

02

By leveraging CTM, vendors save on development and maintenance costs associated with direct SPCB integrations.

### Focus on Core Services

Vendors can focus on providing quality instrumentation and data collection services instead of dealing with compliance-related technical challenges

03

### Value-added Features

04

CTM offers tools like calibration records and maintenance management, adding more value to the services vendors provide to their clients.

### Improved Client Onboarding

05

Vendors can quickly onboard new entities into the system without worrying about setting up complex compliance mechanisms.

## Development Team

The development team is the backbone of the Central Transmission Medium (CTM) software application, responsible for designing, building, and deploying a

robust and scalable solution.

Comprised of specialized roles, this team ensures the application meets technical, functional, and compliance requirements. Each member brings unique expertise to the table, collaborating to create a seamless and efficient system.

#### key members of the development team

Senior Solutions Architect

Senior Django/Python Developer Junior Django Developers

AWS Data Engineers Software Application Tester Team Coordinator

## Development Team

**S.No.**

1

2

3

4

5

6

**Position**

Team Coordinator

Senior Solutions Architect

Senior Django/Python Developer

Junior Django Developer

AWS Data Engineer

Software Application Tester

**Role**

Acts as the liaison between the development team and senior management, ensuring clear communication, resource allocation, and timely deliverables.

Responsible for designing the architecture of the software application, ensuring scalability, security, and compliance

Leads API design and development, ensuring the core functionality of the application is robust and efficient.

Focused on developing the dashboard application, including the front- end interface and integration with back-end APIs

Develops and maintains the data pipeline, ensuring seamless and secure data flow between vendors, the CTM, and SPCB servers.

Ensures the quality and functionality of the software through comprehensive testing and bug identification.

**Requirement**

1

1

1

2

2

1

Development Team

**Importance of the Development Team**

Architecting the Solution

End-to-End Development

Seamless Integration

Operational Readiness

Collaboration and Communication

The team is tasked with creating a well-structured, scalable, and secure architecture tailored to the

needs of SPCBs, vendors, and polluting entities.

From API design to front-end dashboards and data pipelines, the development team ensures every component of the software is functional, user-friendly, and compliant with industry standards.

By focusing on modular design and interoperability, the team ensures smooth integration between the CTM, SPCB servers, and vendor systems.

They establish a strong foundation for the software to handle large-scale operations while maintaining high performance and reliability.

The team works closely with senior management and stakeholders to ensure the software aligns with organizational goals and addresses user requirements effectively.

**Support**

TEAM

The support team is a critical component of the Central Transmission Medium (CTM), ensuring its seamless operation and fostering trust among all stakeholders—SPCB officials, vendors, and polluting entities. **Comprising a senior support staff and two junior support staff and a regional manager for each region**, this team is dedicated to maintaining the system's integrity, addressing user queries, and facilitating compliance.

Importance of the Support Team

1. Ensuring Data Continuity
2. Client Relationship Management
3. Compliance Facilitation
4. Operational Reliability

Daily Tasks of the Support Team

1. Data Monitoring
2. Query Resolution
3. Compliance Communication
4. System Maintenance
5. Reporting and Feedback

#### Importance of the Support Team

Ensuring Data Continuity

 The team monitors daily data transmissions from vendors to the SPCB, promptly addressing any disruptions to maintain compliance and operational efficiency.

Client Relationship Management

 By serving as the primary point of contact, the support team strengthens relationships with vendors and industries, ensuring their concerns and queries are resolved swiftly.

Compliance Facilitation

 The team plays a pivotal role in disseminating new compliance requirements, keeping all stakeholders informed and aligned with SPCB regulations.

Operational Reliability

 Their proactive monitoring and troubleshooting ensure that the CTM operates at peak efficiency, minimizing downtime or disruptions.

#### Daily Tasks of the Support Team

Data Monitoring

 Continuously oversee data flows to ensure uninterrupted transmission from vendors to the SPCB.  Identify and resolve any issues in data submission promptly.

Query Resolution

 Address and resolve all technical and operational queries from vendors and industries in a timely and professional manner.

Compliance Communication

 Broadcast updates about new or modified SPCB compliance requirements to vendors and polluting entities.

System Maintenance

 Perform routine checks to ensure the platform is functioning optimally.  Report any software issues to the technical team for resolution.

Reporting and Feedback

 Provide regular updates to senior management about operational challenges, user feedback, and areas for improvement.

RUNNING COST

**PERIOD**

In Months

Month 1

Month 2

Month 3

**Vendor**

Count

4

7

10

**AWS Cost**

Storage

60 k

2.2 lacs

5 lacs

**Support**

**Team**

Salaries

80 k

1.5 lacs

2 lacs

**Total**

Monthly Expense

2.30 lacs

6 lacs

13.8 lacs

Total (Including Storage)

1.5 lacs

4.5 lacs

11.7 lacs

\*K represents 1000, \*lac represents 100000, \*The costs shown are in INR and are merely projections.