

TraMM-EnV is one of the major building blocks of Advanced Traffic Management System (ATMS). This software tool is used to monitor and manage a network of C-DAC Adaptive Traffic Signal Controllers (WiTraC & CUTE) installed at different junctions in a City/Zone from the ATMS Command and Control Centre. TraMM-EnV incorporates user friendly Human Machine Interface, Dashboard to configure, visualize, analyze traffic patterns and control traffic signals remotely. It provides options to monitor the data in different visual formats such as Trends, Charts, Reports and Live Animation Screens. Dedicated User Management System of TraMM-EnV provides user based alarms and user specific authorization to access TraMM-EnV software modules. Centralized junction configuration tool in TraMM-Env facilitates plan download and upload functionality to configure the junctions remotely. It receives online junction pattern periodically from different junction controllers and the same will be distributed to associated software modules for display, reporting and processing by the Adaptive Traffic Control System CoSiCoSt.

### SALIENT FEATURES

#### ❖ User Friendly GUI with Dashboard

- Lock feature
- Full Screen feature
- Overall Summary

#### ❖ GIS based status display of intersection controllers

#### ❖ User Management System

- Application Management
- Privilege Management
- User Group Management
- User Management
- Alarm Management

#### ❖ Alarm Management with SMS, MAIL and Dashboard alerts.

#### ❖ Corridor Based DOS Limit Management.

#### ❖ Junction configuration

#### ❖ Active and Passive configurations

#### ❖ On the fly configuration update

##### ➤ Junction

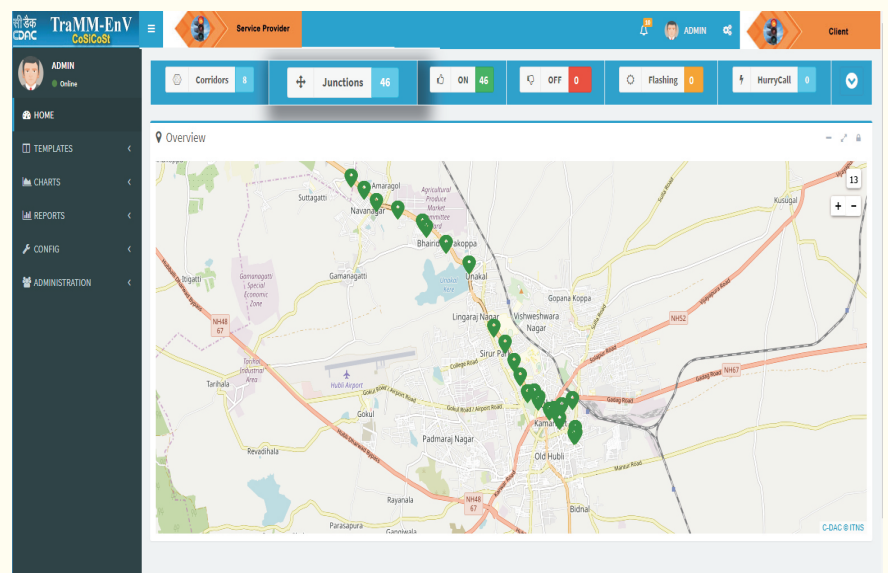
- Phases – vehicular/ indicative/ filter/pedestrian/dummy
- Stages
- Cycles
- Day Plan
- Week Plan
- Season Plan
- Special Plan
- Hurry Call
- Setup
- Controllers
- Detectors
- Junction plan download
- Junction plan upload

##### ➤ Corridor

- DOS Limits, Speed, GSO

##### ➤ Database

##### ➤ Housekeeping



Dashboard

#### ❖ Junction animation configuration

- Component palette
- Standard editing components
- Traffic components
  - Junction Status
  - Vehicular
  - Indicative Green
  - Filter Green
  - Pedestrian

#### ❖ Process monitor

#### ❖ Backup and restore

#### ❖ Template based configuration for corridor and junction displays

#### ❖ Key Performance Index Template

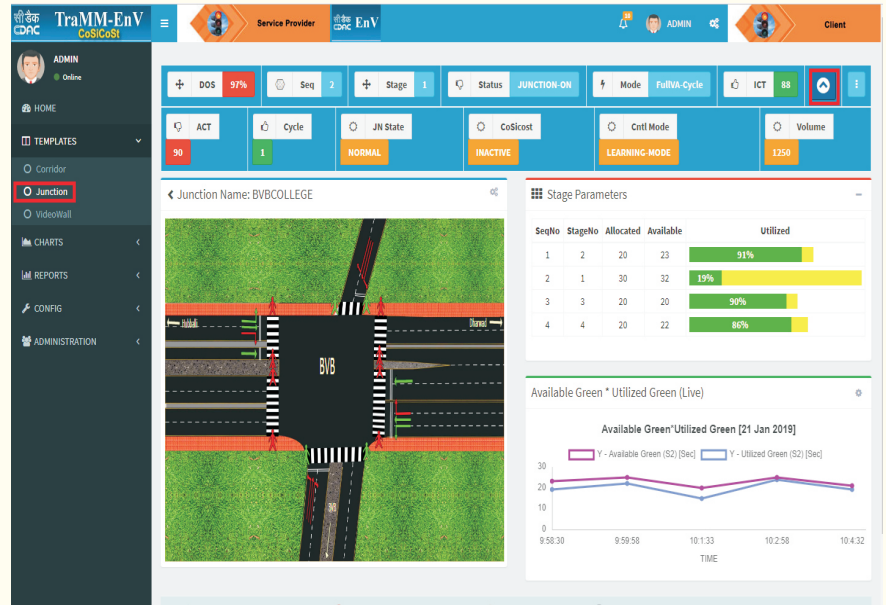
#### ❖ Grouping of junctions for Green corridor

#### ❖ Data analysis

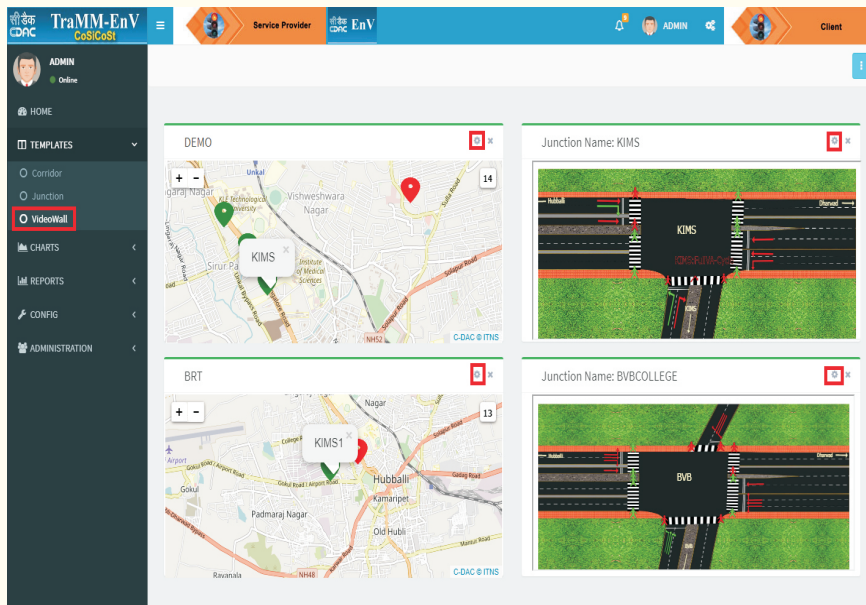
- Historic Charts and Online Trends for Corridor and Junction parameters
  - Customizable user input
  - Configurable update frequency for displays
- Dynamic creation of corridor and junction templates

## ❖ Junction Animation

- Signal pattern display
- Stage timings details
  - Stage No
  - Allocated
  - Available
  - Utilized
- Template based Online Graph for all parameters
- Online junction summary
  - Mode of Operation
  - Running Cycle
  - Stage of execution
  - Intersection Cycle Time
  - Corridor Cycle Time
- Remote administration
  - Flash / Auto
  - Hurry Call / Auto
  - Lamp off



Junction Animation



Video wall

- ❖ Saturation Chart
- ❖ Template based Video Wall display
- ❖ Client and Service provider Logo configuration
- ❖ User image configuration
- ❖ White-lister configuration for remote access
- ❖ Web Service for Smart City dashboards

## ❖ Time Space Diagram

## ❖ User defined permanent and temporary scheduler

## ❖ Standard and custom Reports

### ➤ Corridor Report

- Corridor Performance
- Corridor Speed

### ➤ Junction Reports

- Switching Reports - Stage/ Mode/Cycle
- Timing Report - Stage/Cycle
- Synchronization
- Event Reports
  - Power up and Down
  - Link Status
  - Re-Join Status
  - Intensity Change Time
  - Plan Change
  - RTC Failure
  - Time update
  - Battery Voltage
  - Mode Change
  - Lamp Failure
  - Loop Failure
  - Inter-green conflict

## OPERATING PLATFORM

Windows Server 2012 or above

## DATABASE

PostgreSQL 9.3