

Introduction

Efficient and effective vehicle planning and scheduling are pivotal to the success of any organization that relies on a fleet of vehicles to deliver services, transport goods, or cater to passenger needs. The Vehicle Planning & Scheduling System represents a groundbreaking solution meticulously engineered to meet the intricate demands of contemporary fleet management. It harnesses the prowess of state-of-the-art technology to provide automation, optimization, and real-time insights that can revolutionize the fleet operations.

Choosing this system represents the commencement of a voyage towards operational excellence, cost reduction, and superior service delivery. It also signifies an embrace of a sustainable and eco-conscious approach to fleet management, contributing to a cleaner, more efficient, and environmentally responsible transportation ecosystem. Whether the goal is to elevate public transit reliability, streamline logistics precision, or refine school transportation, this system stands as a steadfast partner in navigating the dynamic and ever-evolving landscape of the transportation industry.

Features :

Web based Solution : Ajeevi AJV_SOF_VPSS_001 is a web based solution which can be accessed from anywhere with the appropriate credentials of access.

Be-spoke Software: Ajeevi AJV_SOF_VPSS_001 is a Be-Spoke software application which can be customized as per the operation needs of BCLL.

Graphical User Interface: Ajeevi AJV_SOF_VPSS_001 is a fully functional GUI based application and All screens with non-paging data open and populate with data within 10 seconds. All the pages of the application have similar refresh timeframe for page open and populate.

Crew Planning Module / Duty Roster: Ajeevi AJV_SOF_VPSS_001 has Crew Planning Module to enable creation / modification of crew job ids and allocation of same to trip schedules. It is also capable to dynamically modify the rosters i.e., linking of a job id or duty number of driver / conductor as and when required by the depot manager. The history of same will be available, while drawing out reports.

Dispatch Management Module: This module is capable to enable fully integrated automated dispatch of buses in real time from depot / workshop/control points. It is capable to update and provide revised ETAs or bus number for the passengers waiting at the bus stops via downlink of revised information onto the PIS at bus stop accordingly.

Memo Generation: Ajeevi AJV_SOF_VPSS_001 is generates Memo which can enhance efficiency and minimize the risk of miscommunication in fleet management.

Reporting and MIS: This module generates all reports separately for different sub-systems under operation and provides enough summarized and detailed data, including features to generate standard report based on pre-established criteria, as well as required reports based on a user definable set of search criteria.

Vehicle Dispatch Dashboard

Welcome on Dashboard



Available Fleet
106

HeldUp Fleet
21

Navigation Icons:

- Fleet Availability
- Fleet Generation
- Memo Creation
- Incident Logging
- Busm Details
- Route Details
- Complaint Details
- Vehicle History



Operation

- Total Buses(127)
- Breakdown Buses(0)
- Accident Buses(0)
- Fleet Available(106)
- Off's Buses(21)
- Incident Logged(0)
- Driver Licence(67)
- Total Driver(423)

Certificate

- Driver Licence(67)
- Buses Insurance(21)
- Fines(0)
- Publication(0)
- CNG Leakage(0)
- Fuel(0)
- Buses Registration(0)

Bus Information

Bus Information

Search By Bus No

Bus No	Current Meter Reading	Chasis Number	Engine Number	Add Certificate	Status	Action
DL1PD-1996	11218	MB1PBEKCFACE7577	DVHZ100003		●	Edit
DL1PD-2002	33071	MB1PBEKCFACE7604	EPHZ246383		●	Edit
DL1PD-2002	32413	MB1PBEJ03GADF4032	GEHZ405809		●	Edit
DL1PD-2004	32758	MB1PBEJ03GADF4420	GEHZ400031		●	Edit
DL1PD-2005	32845	MB1PBEJ03GADF4292	GEHZ406010		●	Edit
DL1PD-2114	20916	MB1PBEJ03GADF4291	GEHZ405462		●	Edit
DL1PD-2134	29203	MB1PBEJ03GADF4310	GEHZ405500		●	Edit
DL1PD-2143	20675	MB1PBEJ03GADF4331	GEHZ405097		●	Edit



Bus scheduling

System | Home | Operation Tasks | Operation Masters | Operation Reports

Duty Number Registration

Duty Number: Route Name: Duty Time: Shift:

Trip Name	Trip Distance	Duty Departure Time	Defined Time (D/W Stop)	Defined Carrying time	Change Time (D/W Stop)	Change Carrying Time
Seemapuri Depot- Anand Vihar ISBT	7.30	04:35	20	2	0	0
Anand Vihar ISBT-H N Clock Tower	30.90	04:57	95	5	0	0
H N Clock Tower- Anand Vihar ISBT	29.60	06:37	100	5	0	0
Anand Vihar ISBT-H N Clock Tower	30.90	06:22	100	30	0	0
H N Clock Tower- Anand Vihar ISBT	29.60	10:32	96	2	0	0

[View Trip Details](#)

Route Details

System | Home | Operation Tasks | Operation Masters | Operation Reports

Route Details

Route Name: Start Stop: End Stop:

Stop Name:

Stop Name	Stop Distance	
New Seemapuri- Shivaji Stadium	18.00	Details
Shivaji Stadium- Rohini Sector 22	26.70	Details
Rohini Sector 22- Shivaji Stadium	27.00	Details
Shivaji Stadium-New Seemapuri	18.00	Details
New Seemapuri- Shivaji Stadium	18.00	Details

[Add Stop](#) [Cancel](#) [Save](#)

ARTS CLUSTER NO.7, SEEMAPURI DEPOT

Contact No-9899129603, 011-45657293

बस नं. **DL1PD-2565**
ड्राइवरका नाम **VIMAL RANA**
कन्डक्टरका नाम

ड्राइवरमीमो रुट नं. **125**
आई.डी. नं. **ARTS/DRV/MD2/0584**
कन्डक्टरआई.डी. नं.

तिथि: **-01-06-2017**
इयूटीन. **125/2**

Seemapuri Depot
0435-0455

Anand Vihar ISBT
0520-0522

Saroop Nagar
0700-0706

0844-0850

1028-1100

Anand Vihar ISBT
1305-1245

1238-1240

अनुसूचितकि.मी **129.9**

वास्तविककि.मी **129.90**

मिसकि.मी **0.00**

कारण



Technical Specifications:

S. no.	Parameter	Remarks
A	GENERAL	
1	Centralized and Integrated Solution	Ajeevi Vehicle Planning and Scheduling Management System
2	Technology Used	COTS (Commercial Off the Shelf)Technology
3	Access Features	RBAC Model (Role-based access and control)
4	Architecture	N-tier scalable architecture ,modular design ,robust software
5	Framework	.NET Core Framework ,ASP.Net MVC
6	Database	SQL Server 2016 and above, Mongo DB, Posgre SQL, Unified database for all SWM data
7	Operating System	Windows/Open Source Linux
8	Frontend	JavaScript, JQuery, React JS, Angular, HTML, Bootstrap, Razor Pages
9	IOT Hub Integration	Kafka, Rabbit MQ, Socket Programming, Web APIs
10	Application Availability	High availability and DR replicability
11	Single-Sign On facility	Available
12	Audit Trail	Ability for logging, audit, and tracking of any changes carried out on the database
13	Interoperability Standards	Can be integrated with any other application through web APIs(Push or Pull)
14	Security Features	1. Security design with well-designed identity management system, security of physical and digital assets, data and network security, backup and recovery and disaster recovery system.

		<p>2. Support for security features such as W3C specifications, Information access/transfer protocols SOAP, HTTP/HTTPS, etc</p> <p>3. API Integration allowed post authentication</p>
15	External Communication	Through SMS Gateway and SMTP Integration
16	Web Enabled Solution	Yes
17	Services for GIS Integration	Google Maps, ESRI Map, Any other available open map
18	GIS Features	Geomapping, Geotagging, POI, Geofencing through Geo JS ON and drawing tool
19	Deployment Features	SaaS Model, On-Premise Model, BOOT Model
20	Cloud Deployment	Amazon AWS, Microsoft Azure
21	Information Security	ISO 27001 certified System
22	Operations	ISO 9001 Certified
General Features		Automatically calculate the trips and schedules of a route/multiple routes.
		Bus demand management based on trips planned, Layover depot time management, dead run management, driver changeover management.
		Enable creation / modification of crew job ids and allocation of same to trip schedules.
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		Support template, so that end users of the application would re-use existing formats and create rosters easily.
		dynamically modify the rosters i.e., linking of a job id or duty number of driver / conductor
		Enable fully integrated automated dispatch of buses in real time from depot / workshop/control points.
		Enable switch between crews (roster modification i.e., linking of duty number to updated plan / route(s), dispatch of replacement buses in case accidents or breakdowns without much manual intervention).
		Recalculation of the schedule when more additional buses are being operated, when route diversion takes place, creation of alternative schedules when serious disruption takes place.

	Update and provide revised ETAs or bus number for the passengers waiting at the bus stops via downlink of revised information onto the PIS at bus stop accordingly.
	Transactional database is exportable in standard formats (such as comma separated value (.csv, xlsx files etc.) for analysis in third party programs.
	All reports shall be generated using a query language and standard query engine that provides flexibility for future updates, and for creation of new reports.
	functionality of ad-hoc reporting to user or group of users through SMS (Summary Report) and Email (Detail Reports)
	All the summary and detail report can be directly accessed from the system with the period of 30 days .