



GSH *MAP*

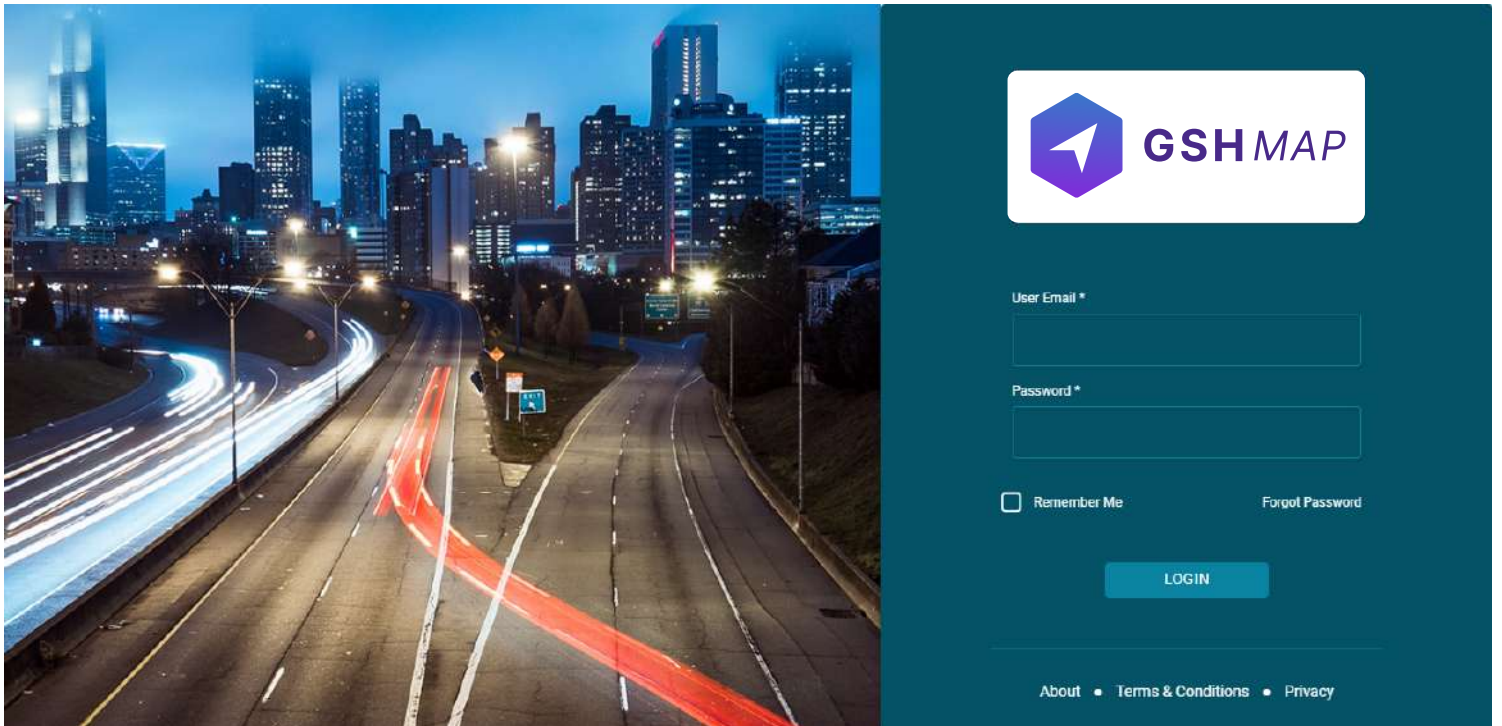
User Manual for GSHMAP Client Application

LOGIN

For logging into GSHMAP, enter the official URL of GSHMAP into the address bar.

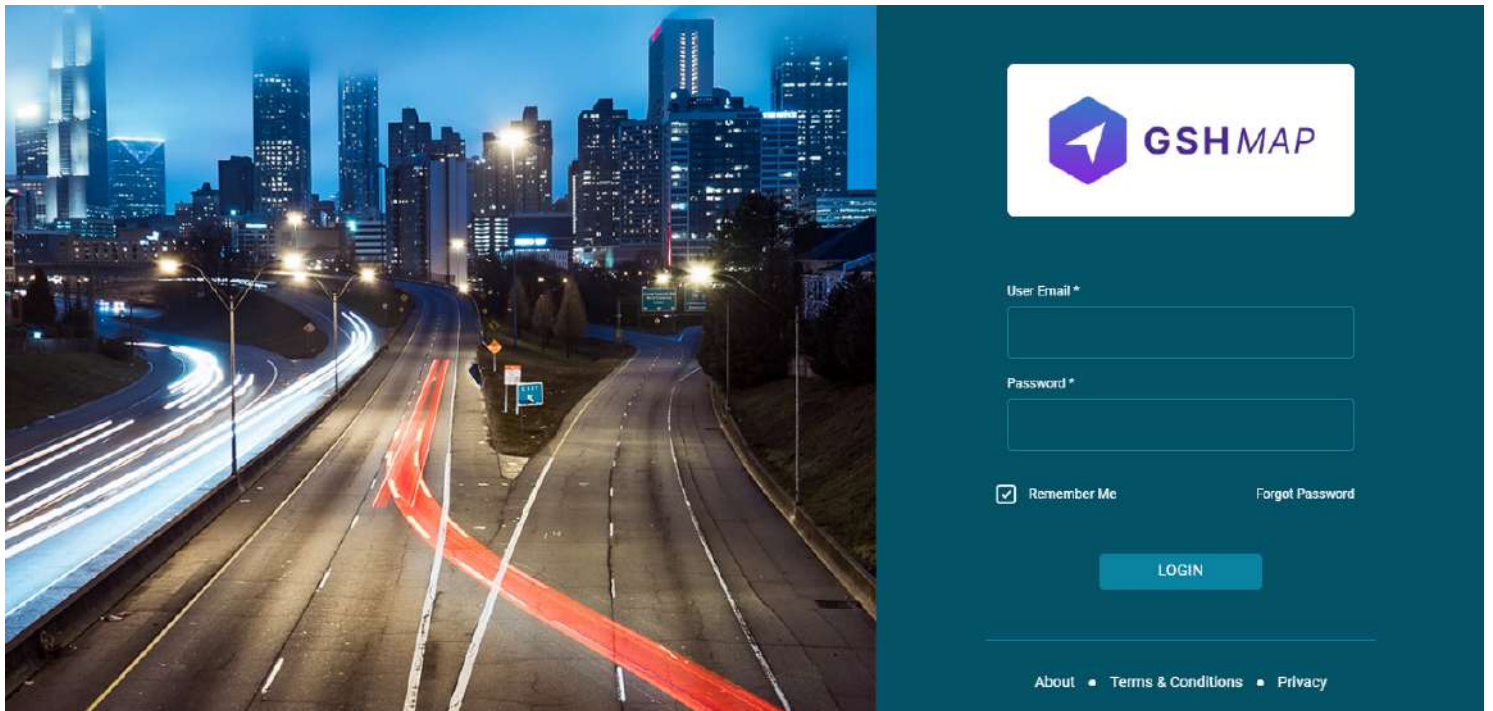
Login page:

- Enter username
- Enter password
- Click on 'LOGIN' button to login to GSHMAP successfully.



Remember Me

GSHMAP provides a "Remember Me" option on the login page. It means that, after a user has logged in once from a device, he/she can login from the same device without entering 'Email' and 'Password' again. This access will only be possible if the user does not logout.

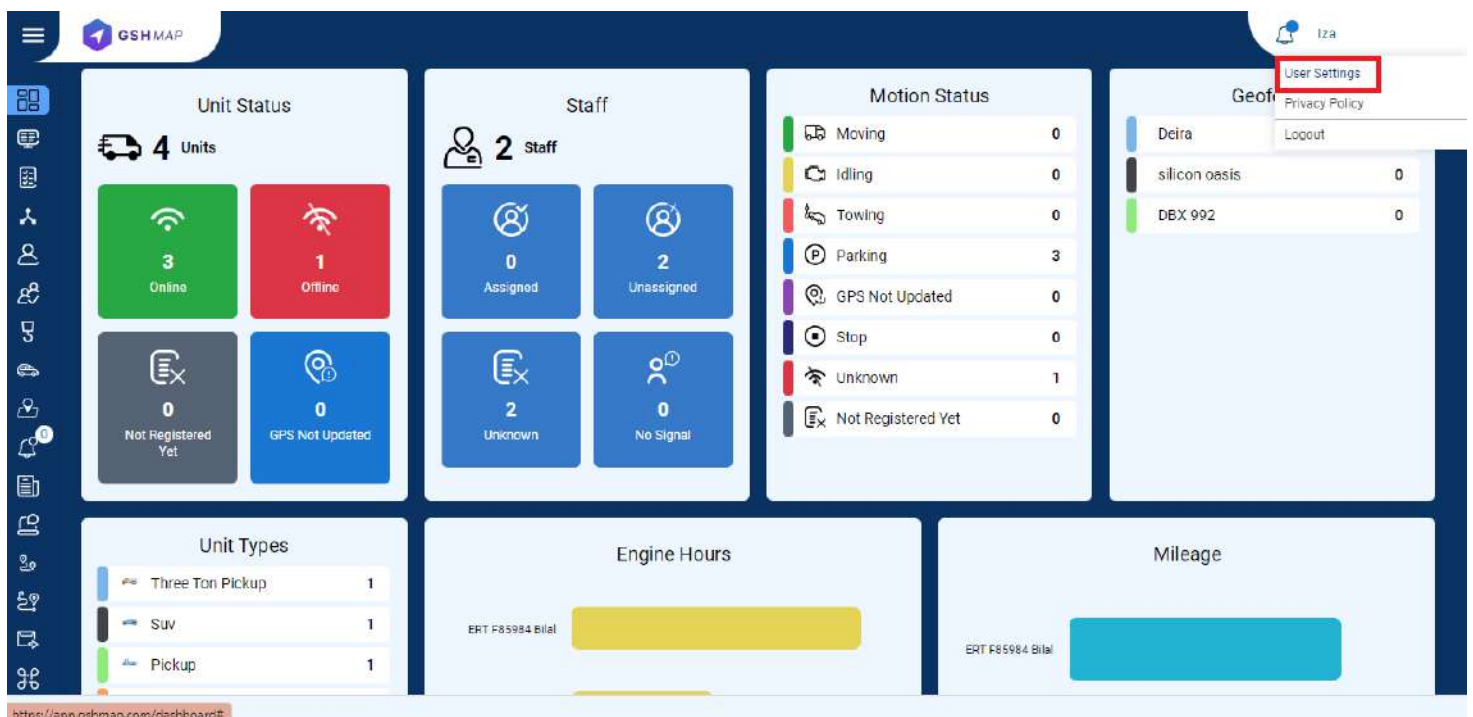


Forgot Password

- GSHMAP provides a "Forgot Password" option on the login page.
- If the user forgets the password, he/she can click on 'Forgot Password' button on login page.
- The user is asked to enter an email address where link is sent to reset password.
- After entering email address, press 'SUBMIT' button.

Password Change

- User can change the account password from 'User Settings' option.
- Click on the 'User Settings' in the top right corner of the screen
- Click on 'CHANGE PASSWORD' option.
- Enter Current password, new password and repeat new password.
- By clicking on 'CHANGE PASSWORD' button, new password will be updated and user can login into the system with the new password.
- Click on 'RESET' button to set password again.



The dashboard displays the following data:

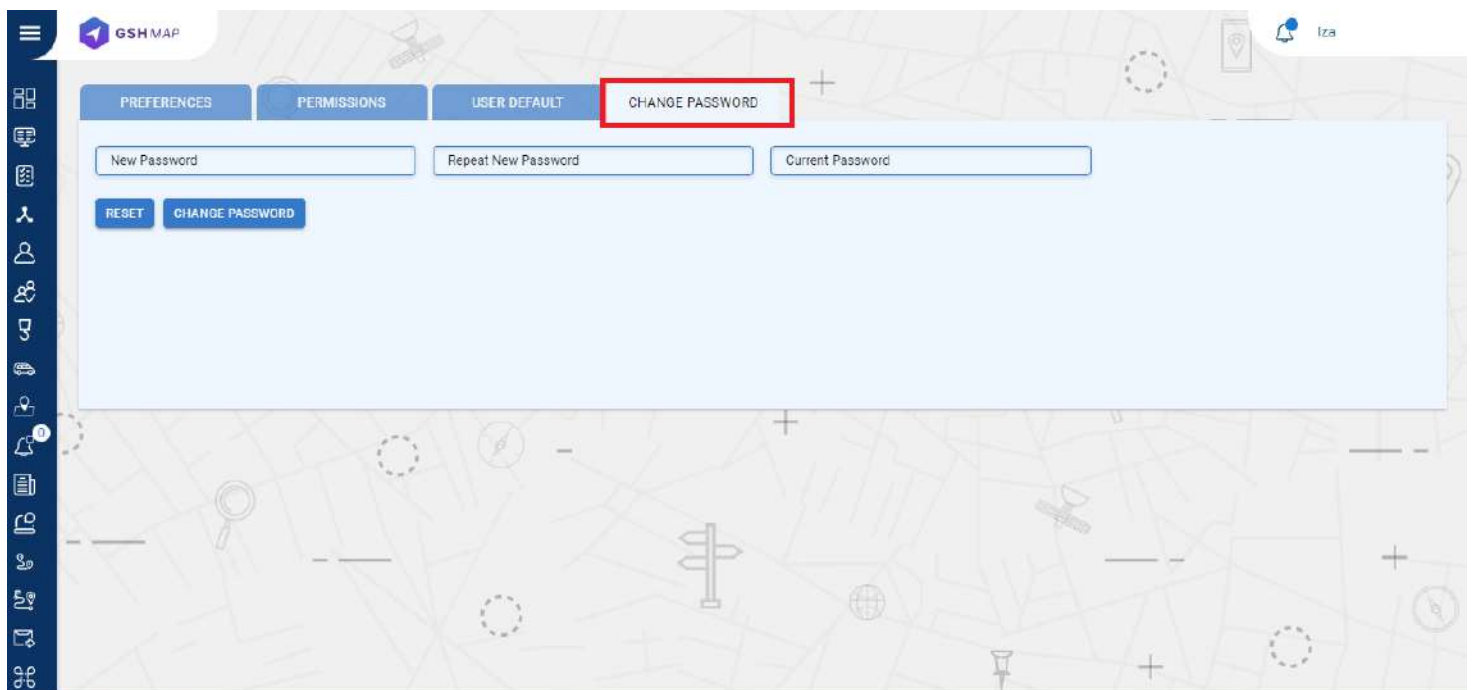
Unit Status	Staff	Motion Status
4 Units	2 Staff	
3 Online	0 Assigned	Moving: 0
1 Offline	2 Unassigned	Idling: 0
0 Not Registered Yet	2 Unknown	Towing: 0
0 GPS Not Updated	0 No Signal	Parking: 3
		GPS Not Updated: 0
		Stop: 0
		Unknown: 1
		Not Registered Yet: 0

Unit Types:

Three Ton Pickup	1
SUV	1
Pickup	1

Engine Hours (ERT F85984 Bilal): [Progress Bar]

Mileage (ERT F85984 Bilal): [Progress Bar]



The 'CHANGE PASSWORD' form includes the following fields and buttons:

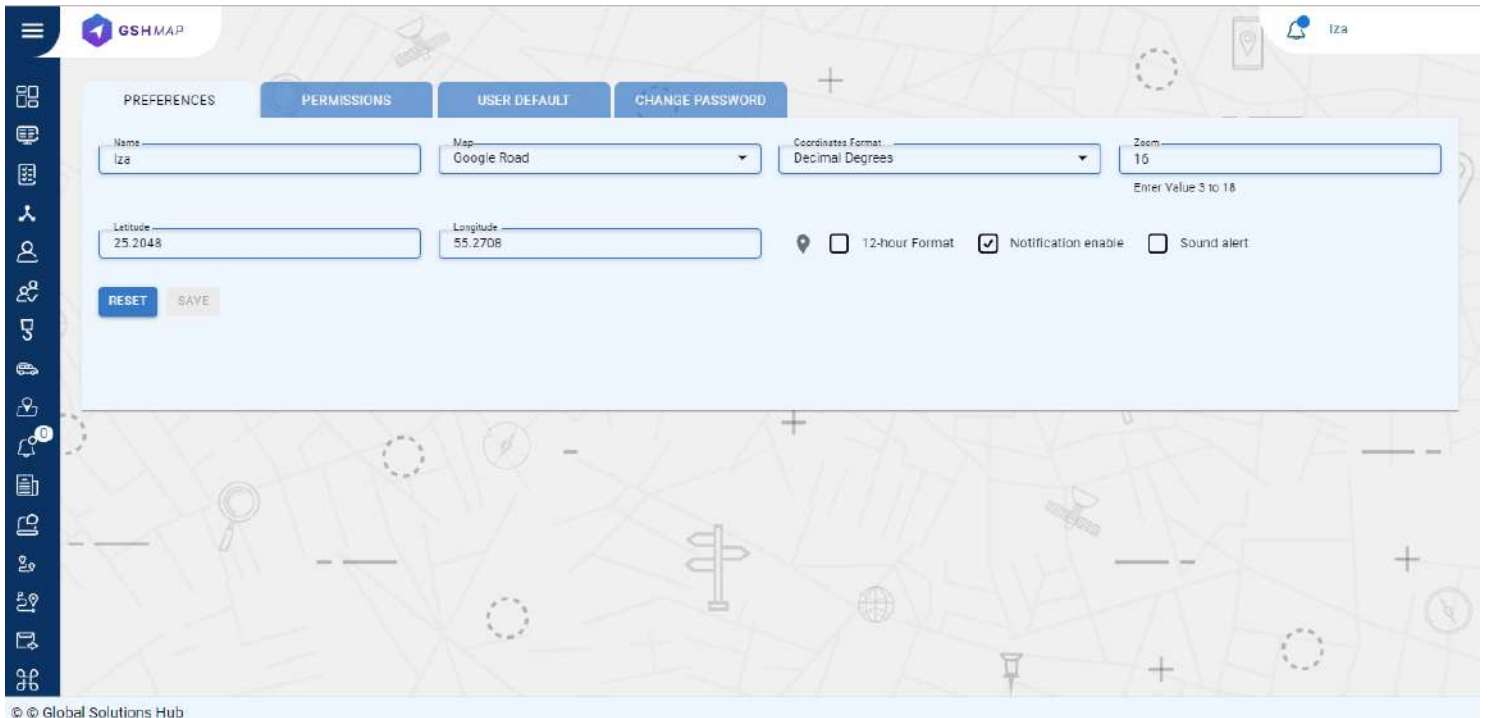
- Navigation tabs: PREFERENCES, PERMISSIONS, USER DEFAULT, **CHANGE PASSWORD**
- Input fields: New Password, Repeat New Password, Current Password
- Buttons: RESET, CHANGE PASSWORD

User Settings

- The 'User Settings' option in GSHMAP allows users to configure certain system parameters.
- To view user settings, go to the username in the top right corner panel and click 'User Settings'.

The User Settings option containing the following options, depending on the system configuration:

- Preferences
- Permissions
- User default
- Changed Password



The screenshot displays the GSHMAP user settings interface. At the top, there are four tabs: 'PREFERENCES', 'PERMISSIONS', 'USER DEFAULT', and 'CHANGE PASSWORD'. The 'PREFERENCES' tab is active. Below the tabs, there are several input fields and checkboxes. The 'Name' field contains 'Iza'. The 'Map' dropdown is set to 'Google Road'. The 'Coordinates Format' dropdown is set to 'Decimal Degrees'. The 'Zoom' field contains '15' with a note 'Enter Value 3 to 18'. The 'Latitude' field contains '25.2048' and the 'Longitude' field contains '55.2708'. There are checkboxes for '12-hour Format' (unchecked), 'Notification enable' (checked), and 'Sound alert' (unchecked). At the bottom left of the form, there are 'RESET' and 'SAVE' buttons. The background shows a map with various navigation icons. The footer of the page reads '© Global Solutions Hub'.

Preferences

- In this option, users can set functionality aspects of the software.
- Set the 'Name' of user.
- Set the 'Map' from the dropdown.
- Set the 'Coordinates Format' from the dropdown options.
- Set the 'Latitude', 'Longitude' and 'Zoom' options.
- Click on the location icon to add or set the location (optional).
- Click on the check box of 12-hour Format (If the user wants to set the time format).
- Users can set notifications for various events and activities by checking the 'Notification Enable' box.
- Check 'Sound Alert' checkbox to receive sound on every notification alert.
- 'RESET' button can be clicked for resetting all parameters.

Permissions

In this option, the users can view the followings parameters:

- Unit Limit
- User Limit
- User can generate a public login link token to conveniently login in future by using this link.
- 'RESET' button can be clicked to reset all the parameters.

User default

In this option, the user can set the following details:

- Time Zone
- Language
- Measurement unit
- Currency
- Custom tags can be generated for vehicle and staff to add a new field in them
- 'RESET' button is available for resetting the all parameters

Changed Password

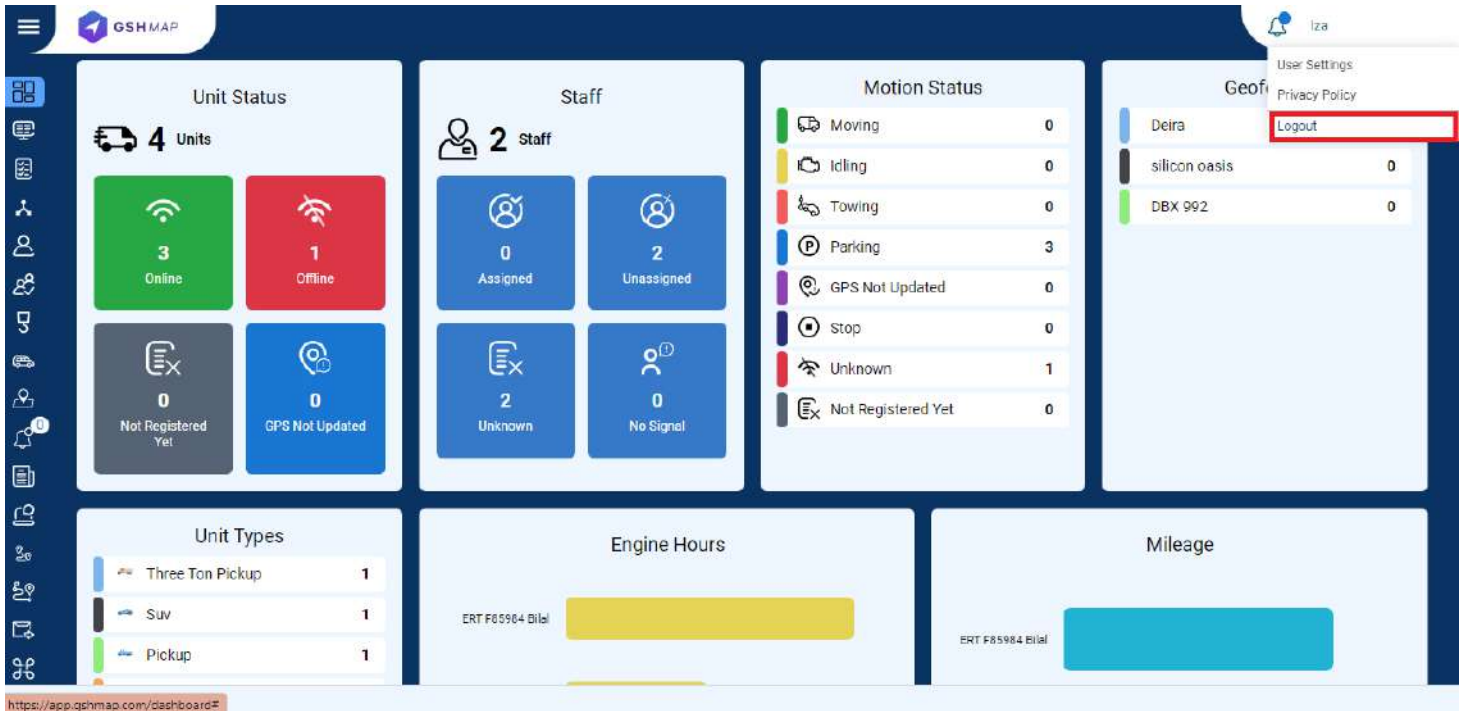
For changing password, user has to follow these steps:

- Add New password
- Repeat new password
- Add Current password
- Click on 'CHANGE PASSWORD' button
- 'RESET' option is available for reset the all parameters

Password will change successfully. Now user can login into the GSHMAP with the new password.

Logout

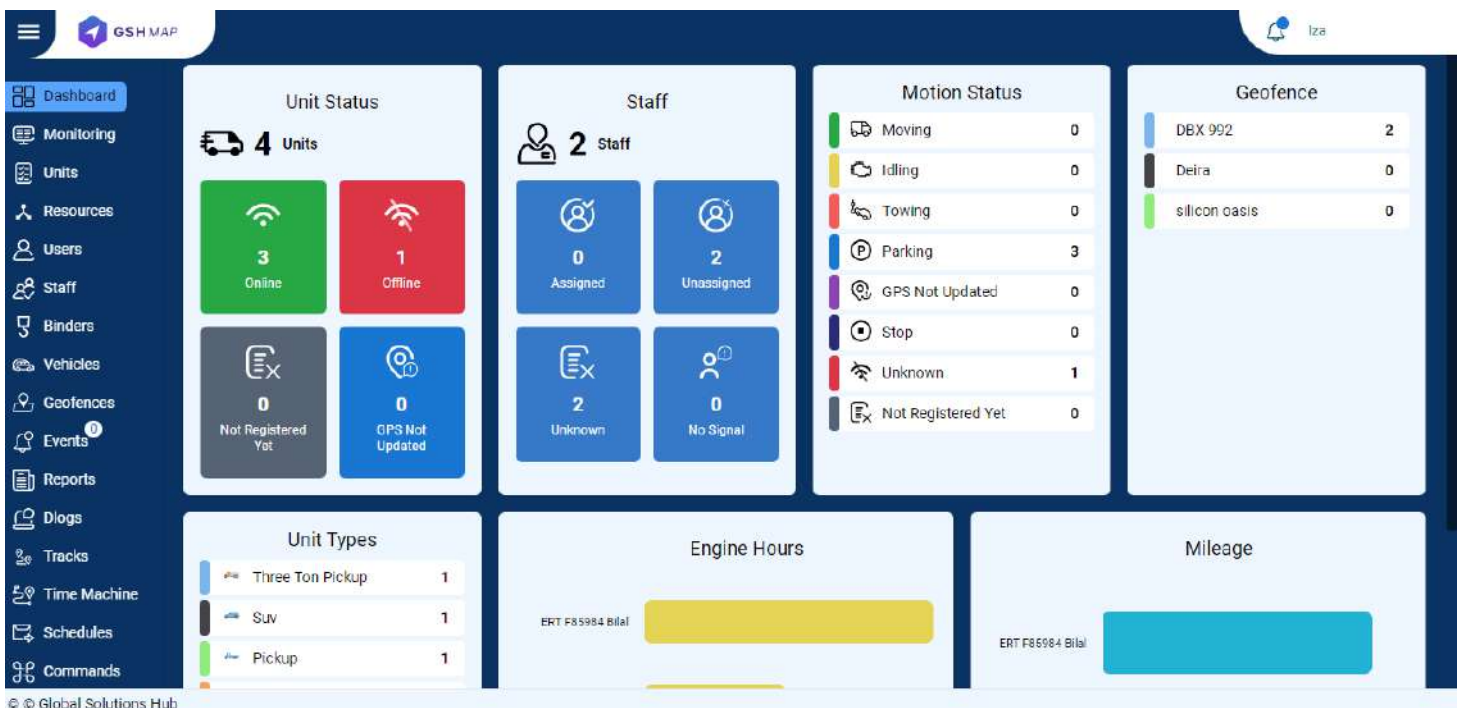
For logging out from the GSHMAP system, click on the user name in the right corner of the display and then click on the logout option.



The screenshot shows the GSHMAP dashboard interface. In the top right corner, the user's name 'Iza' is displayed. A dropdown menu is open, showing options: 'User Settings', 'Privacy Policy', and 'Logout'. The 'Logout' option is highlighted with a red border. The dashboard contains several widgets: 'Unit Status' (4 units: 3 Online, 1 Offline), 'Staff' (2 staff: 0 Assigned, 2 Unassigned), 'Motion Status' (Moving: 0, Idling: 0, Towing: 0, Parking: 3, GPS Not Updated: 0, Stop: 0, Unknown: 1, Not Registered Yet: 0), 'Geofence' (Deira: 0, silicon oasis: 0, DBX 992: 0), 'Unit Types' (Three Ton Pickup: 1, SUV: 1, Pickup: 1), 'Engine Hours' (ERT F85984 Bilal), and 'Mileage' (ERT F85984 Bilal).

GSHMAP Web Application

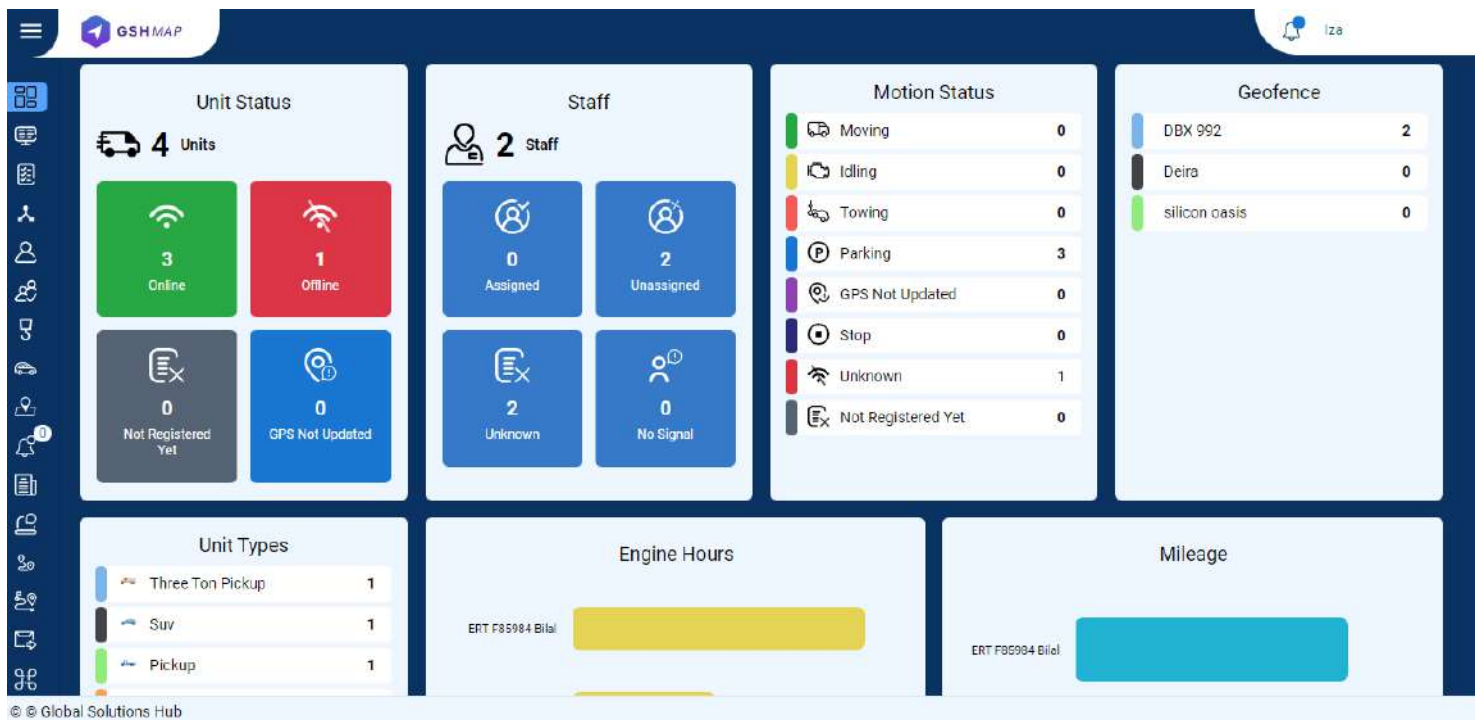
The main menu of the GSHMAP on the left contains different modules. These modules contain different elements and subcategories depending on the applied settings. All the modules along with their functionalities are given below:



The screenshot shows the GSHMAP web application interface. On the left, there is a main menu with the following items: Dashboard, Monitoring, Units, Resources, Users, Staff, Binders, Vehicles, Geofences, Events, Reports, Dogs, Tracks, Time Machine, Schedules, and Commands. The dashboard contains several widgets: 'Unit Status' (4 units: 3 Online, 1 Offline), 'Staff' (2 staff: 0 Assigned, 2 Unassigned), 'Motion Status' (Moving: 0, Idling: 0, Towing: 0, Parking: 3, GPS Not Updated: 0, Stop: 0, Unknown: 1, Not Registered Yet: 0), 'Geofence' (DBX 992: 2, Deira: 0, silicon oasis: 0), 'Unit Types' (Three Ton Pickup: 1, SUV: 1, Pickup: 1), 'Engine Hours' (ERT F85984 Bilal), and 'Mileage' (ERT F85984 Bilal). The footer of the page reads '© Global Solutions Hub'.

DASHBOARD

GSHMAP provides the comprehensive dashboard that contains summary about the units from the units list. From the dashboard, user can view the details about unit status, unit types, staff, geofences, motion status, engine hours, and mileage. This information is updated as new real-time data is received from the units.



Unit Status

- This option contains the latest status of the units divided into four categories including 'Online', 'Offline', 'Not registered yet' and 'GPS Not Updated'.
- User can view the names and number of units falling in a particular category.

Staff

- This option shows the distribution of drivers in four categories Assigned, Unassigned, Unknown, No Signal.
- The number of drivers falling in a specific category is shown.
- By clicking on any driver, all its detail can be viewed including ID, Name, Phone Number, the Assigned Unit ID, and Assigned Unit Name.

Motion Status:

- The motion status of vehicles including Moving, Idling, Towing, Parking, Stop etc. can be viewed.
- The number of vehicles in a certain status is displayed with the status name.
- By clicking on any driver, all its detail can be viewed including ID, Name, Phone, Assigned Unit ID, and Assigned Unit Name.

Geofence:

- All the created geofences are displayed in this section.
- The number of vehicles in a specific geofence is displayed next to its name.
- You can click on the geofence and see the details of the units that are currently inside that geofence.

Unit Types

- This option contains the different types of units (vehicles) which are shown with their names and logos on the dashboard.
- The total number of units belonging to a certain type are displayed in front of the name.
- You can click on any type to see the units that fall in that category.

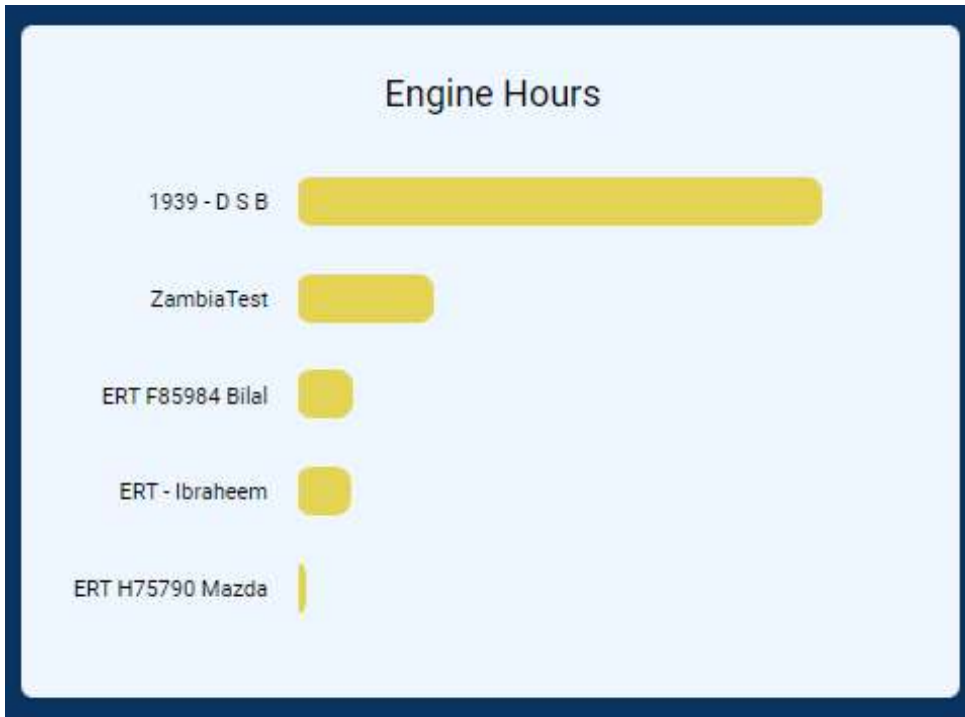


Unit Types		
	Three Ton Pickup	1
	Car	5
	Default	6
	Double Cabin Pickup	2
	Suv	1
	Pickup	1

Engine Hours

This option contains the engine hours which is the time between the ignition ON and ignition OFF.

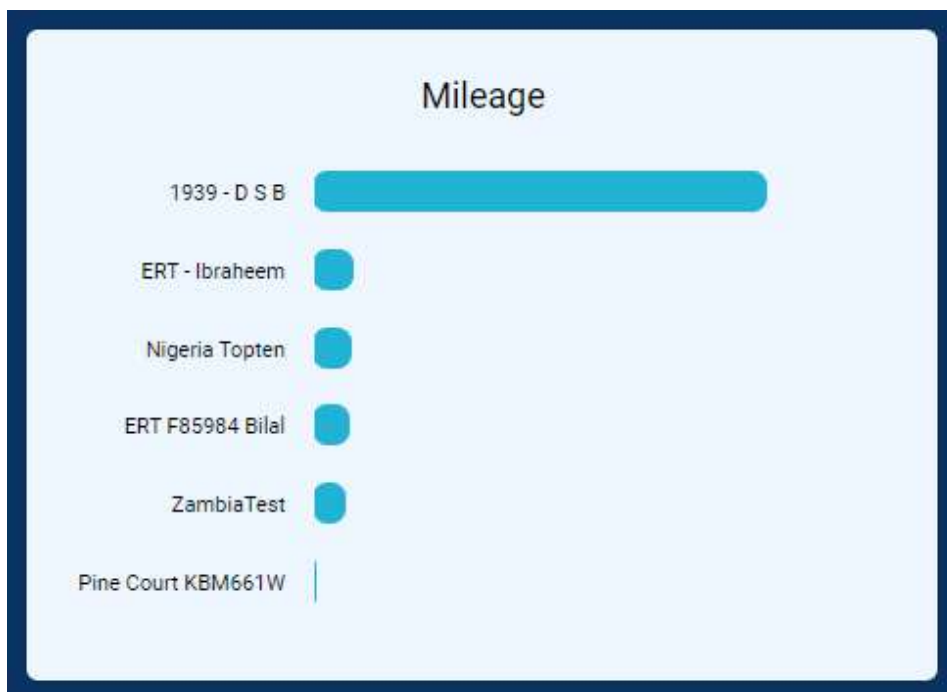
- It shows the engine hours of top 10 units which are shown in the descending order on dashboard.
- By hovering on graph user can also view the engine hour value of every individual unit with its unit.



Mileage

• This option contains the mileage of top 10 units which are shown in the descending order on dashboard.

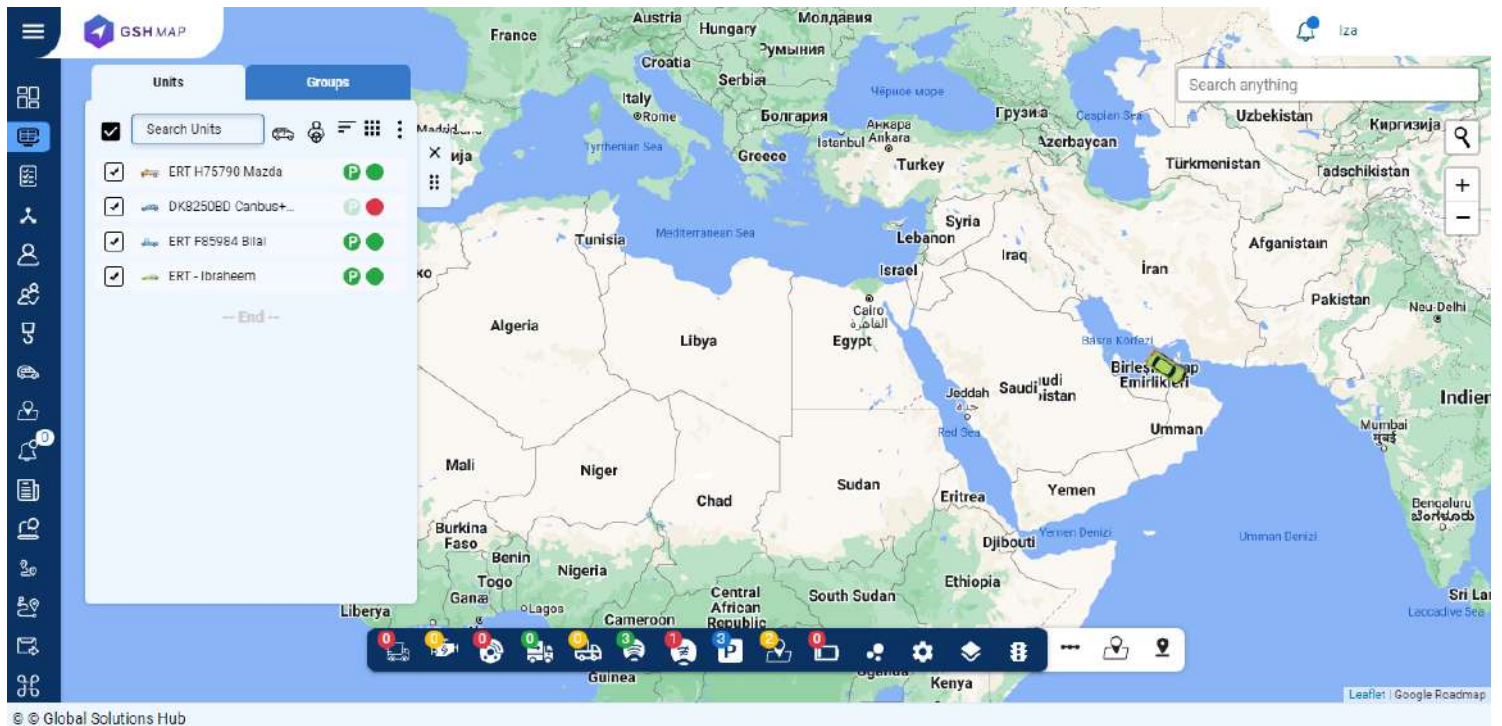
- By hovering on graph user can also view the mileage value of every individual unit with its unit.



MONITORING

In the monitoring module, users can view all the details about units and their functionalities including movement of units on the map, notification of units, status changes etc.

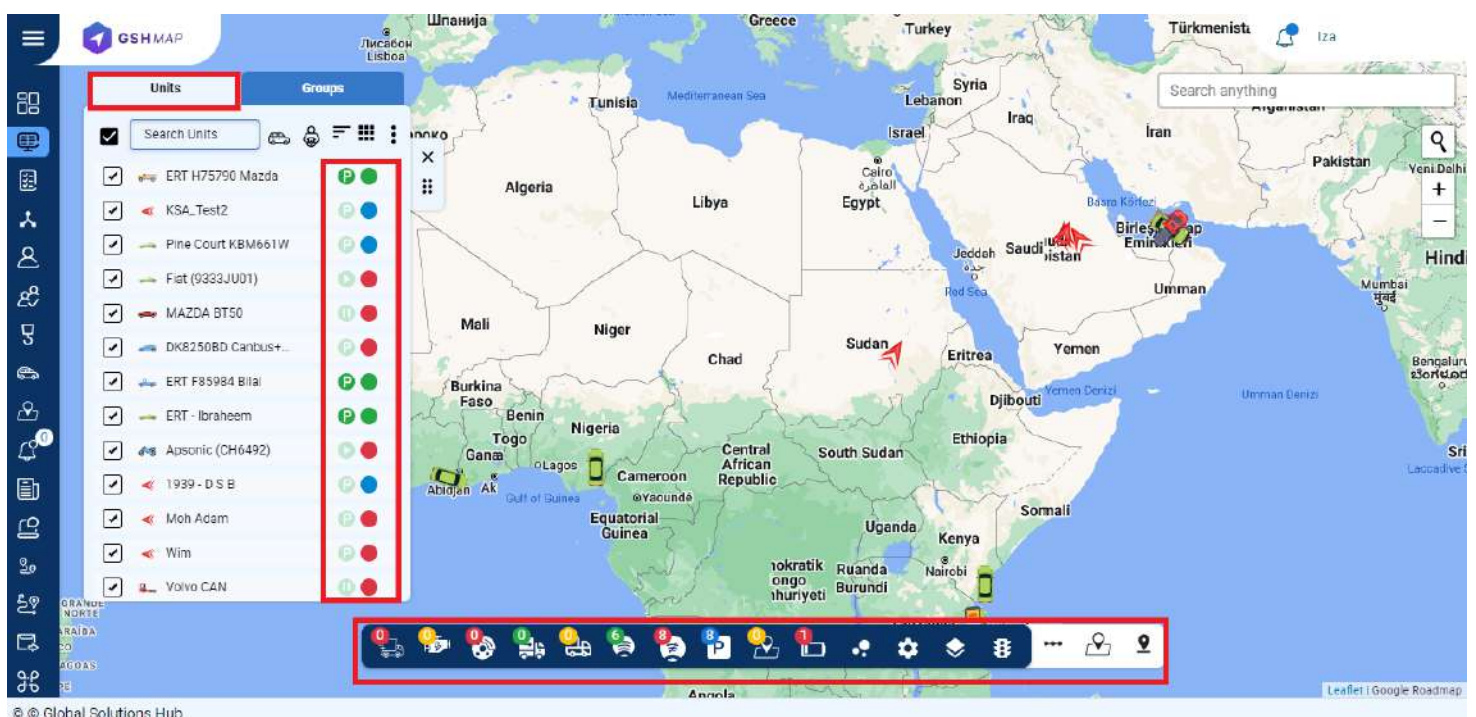
- By clicking on the settings icon, the options to display in the horizontal bar can be set by checking them.
- User can search places on the map with maximum zooming feature to view the unit's movement discreetly.
- Users can select/change any type of map by clicking on the map icon in the horizontal bar.



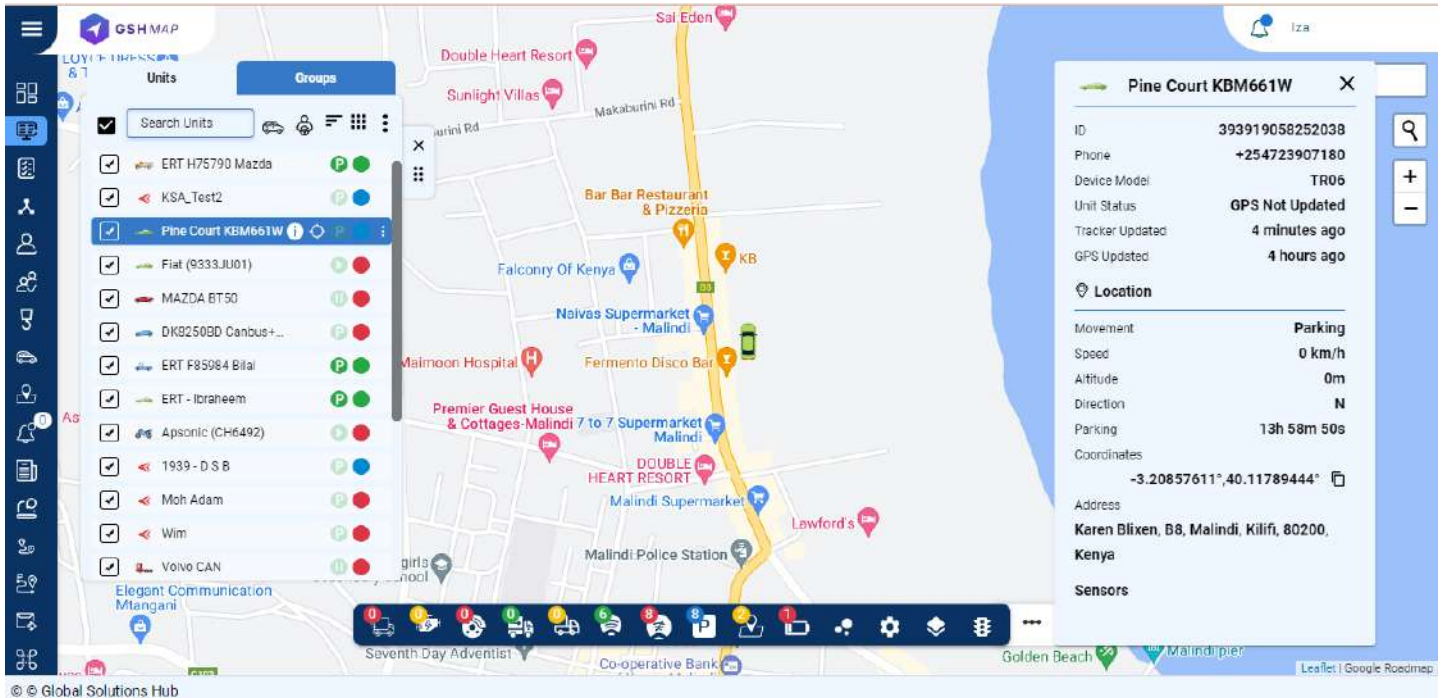
UNITS

User can view the units list individually and in groups. In the units list, user can manage the list of units by adding and deleting them.

- The sorting of the units can be done name wise and device status wise.
- The status of the vehicle in the list is shown by small icons next to its name.
- To find the required unit in the list, use the search field above units list.
- The color of the circle near the unit's name indicates the current status of the unit.
- Green circle indicates: Unit is online
- Red circle indicates: Unit is offline
- Blue circle indicates: GPS is not updated.
- Grey circle indicates: Unit is Not registered yet.
- To follow a unit on the map, click on its name in the units list. As a result, the map centers and zooms in on the selected unit.
- User can also select all units at once by selecting the check box "Select All" in the top left corner of the units list.
- To cancel the selection of all units, uncheck the "Select All" check box.
- By clicking on the 'Vehicle Filter' and 'Staff Filter', you can search the units based on vehicle and staff filters.
- In the horizontal bar, the changing status of the units can be viewed in real time.



- User can view the details of units by clicking on “View details” button. All details of unit appeared with unit status, movement status etc.



User can also set the units movement status and monitor status changes moving, idling, towing etc.

Groups

- By clicking on groups user can view the groups list on monitoring screen.
- User can create groups and assign units into groups and name these groups. Group management can be done in the units tab.

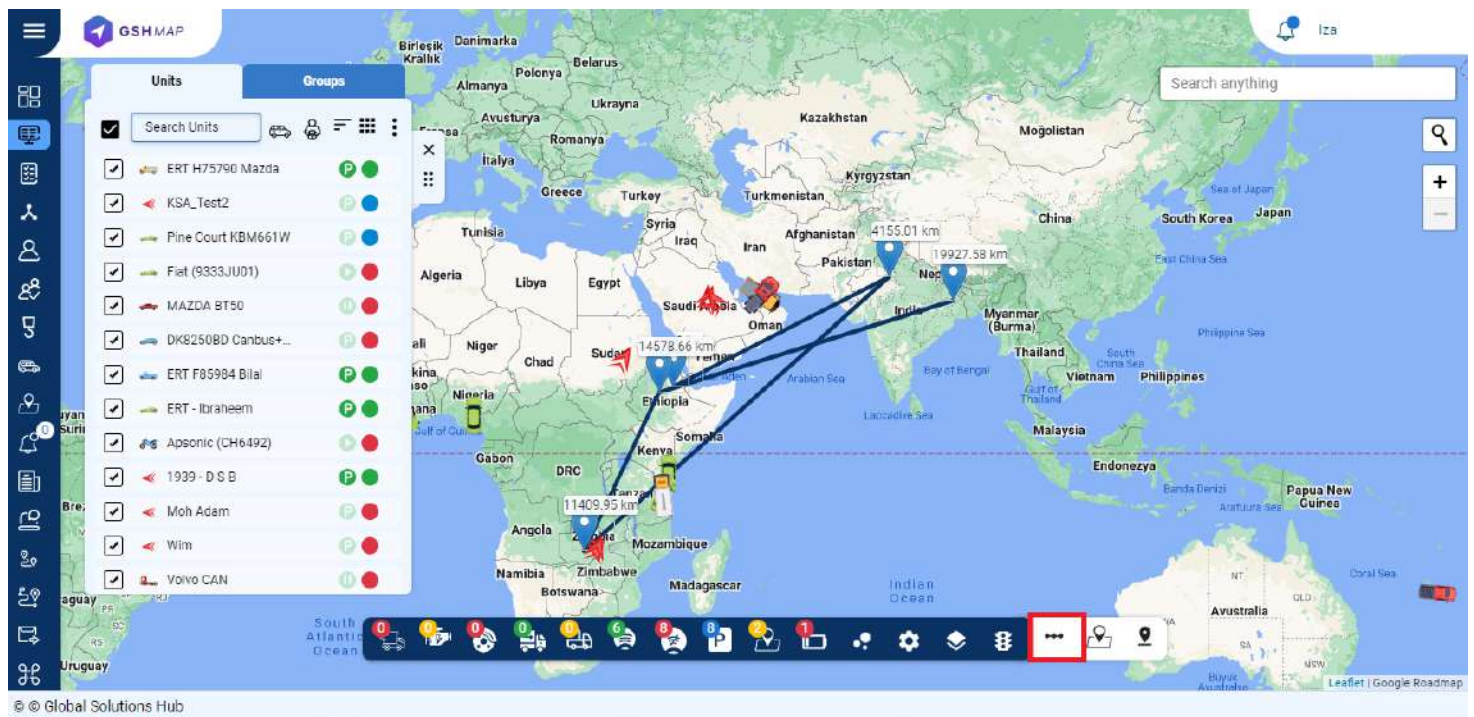


Status Bar:

The status bar contains both the connection and motion status of the units. By clicking on any status, the units falling in that category will show up on the map.

Measure distance and area calculator

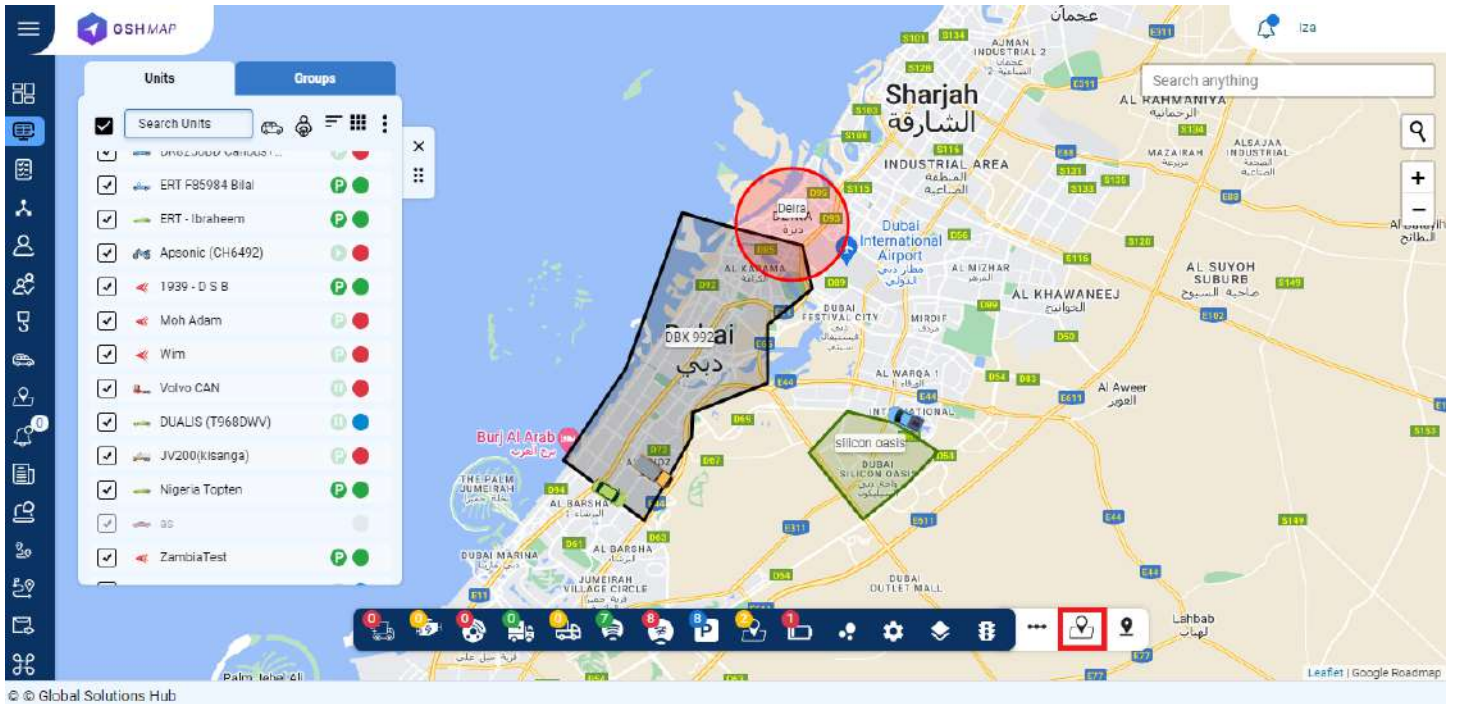
- The area and distance can be measured by clicking on the calculation option in the horizontal bar.
- By clicking on measure distance and calculator area icon on map, user can set location from one point to another point to measure the distance or calculate the area.



Geofences

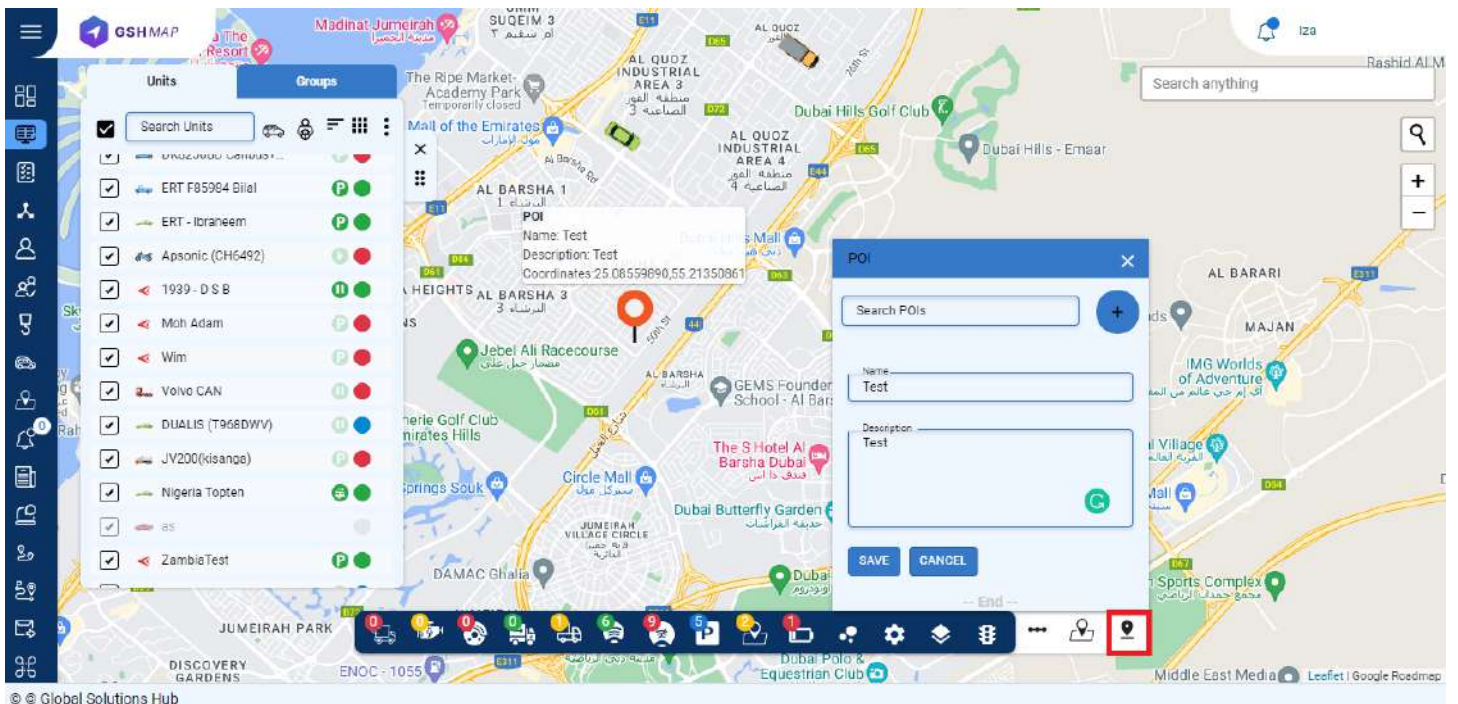
Geofence is an area on the map that is important for route planning and tracking purposes. User can choose a name, description and color for a geofence.

- New geofences of any size and shape (circle, polygon and polyline) can be created by clicking on the 'Geofence' option.
- By clicking on geofences icon on the map, user can create, edit and delete geofences.
- The number of vehicles in the geofences are displayed with the 'Inside Geofence' icon in the horizontal bar.



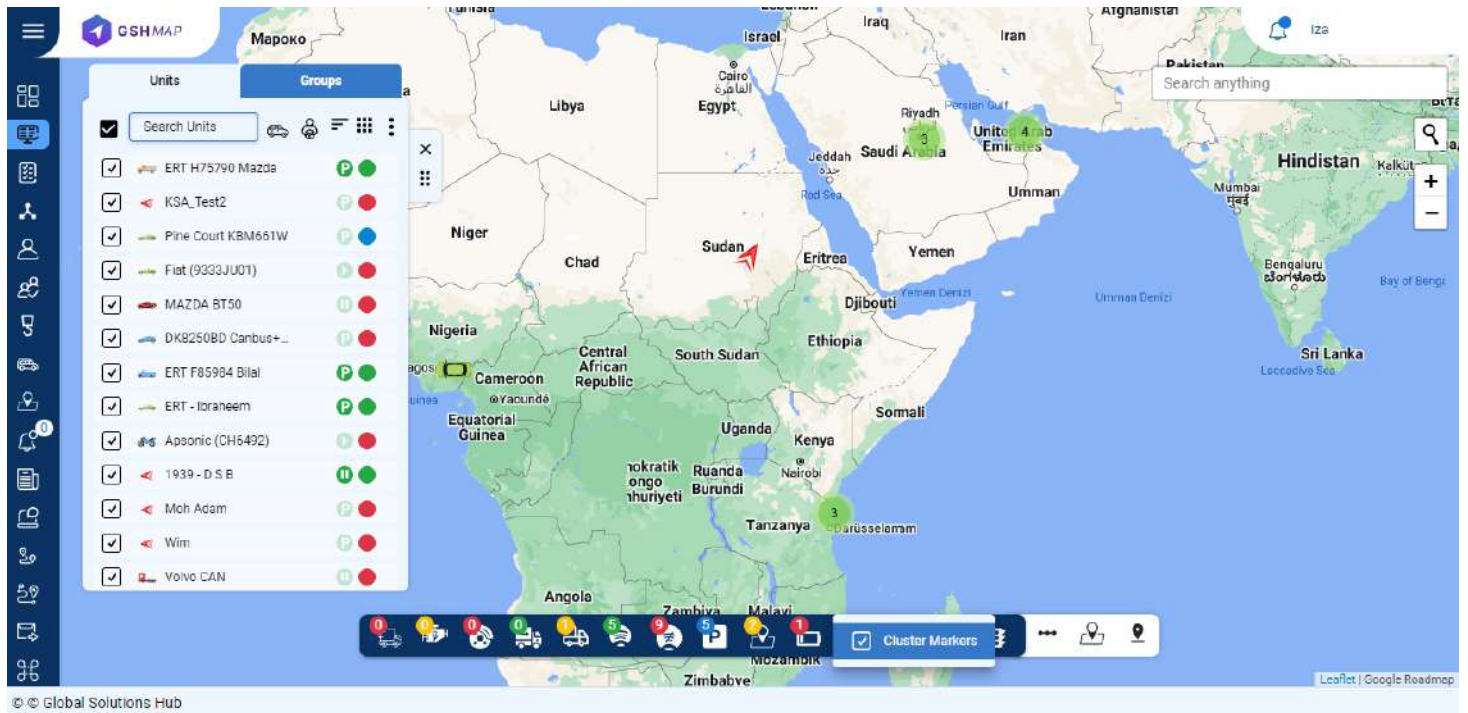
POI (Points of interest)

- By clicking on the 'POI' icon, a point of interest can be created showing the exact location coordinates.
- User can create the places by right clicking on the map as reference points and can give them names and description.



Cluster Markers

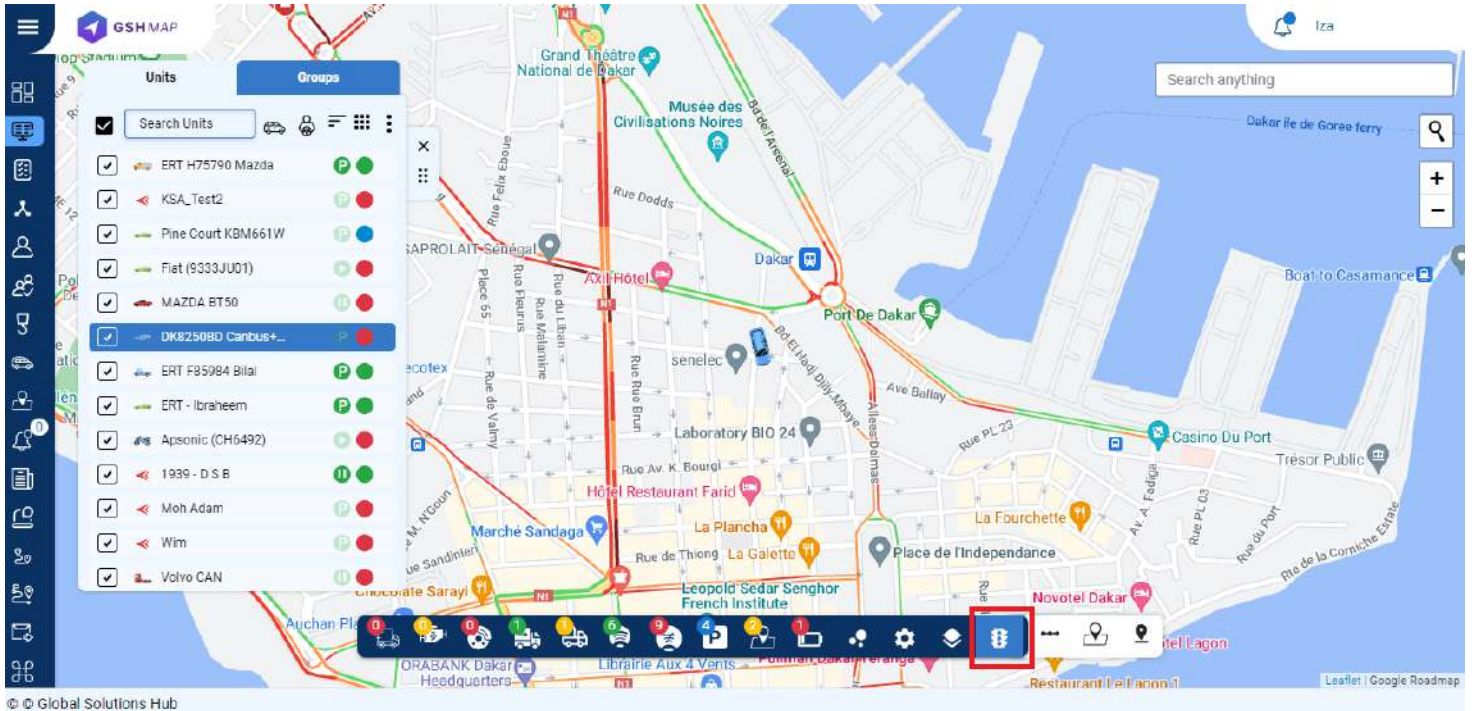
- By checking the 'Cluster Markers' box, the number of vehicles can be viewed on the map.



Toggle Traffic

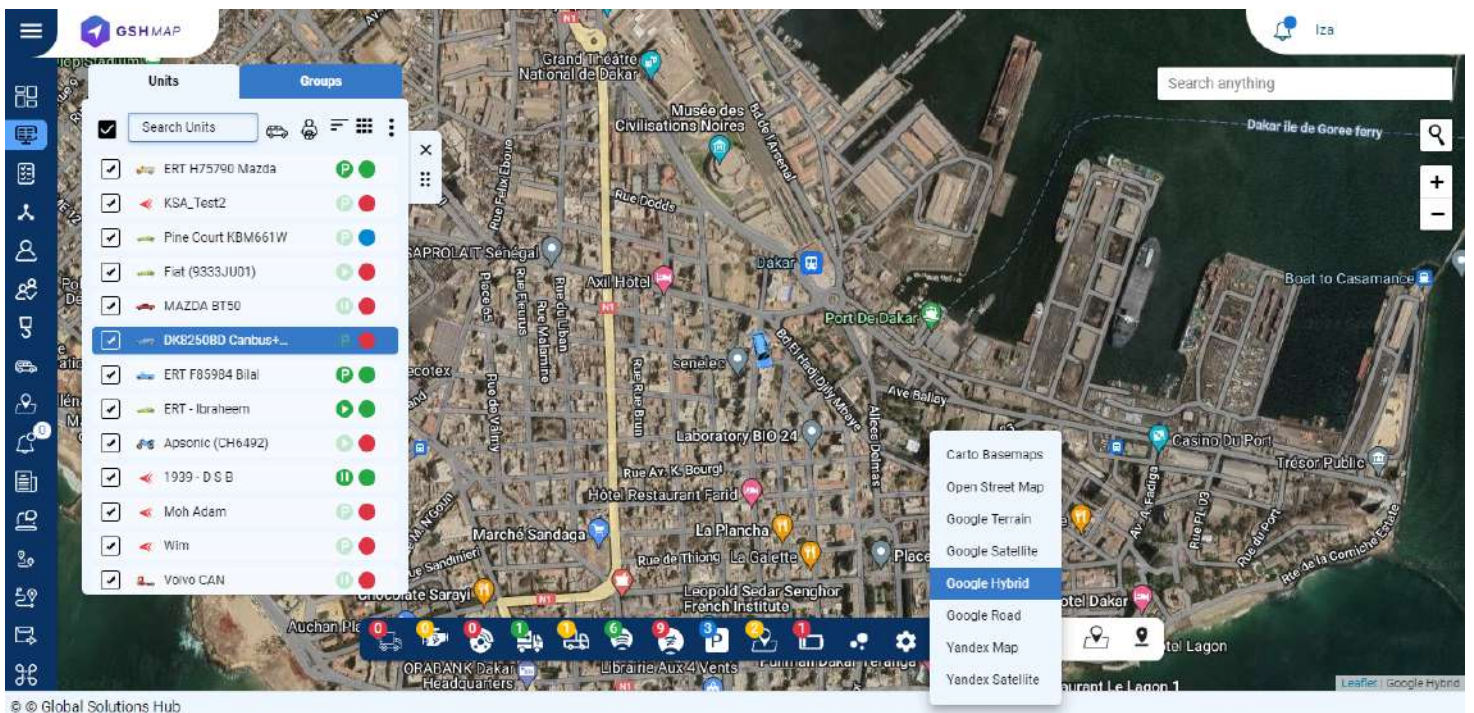
By clicking on this option, you can view the traffic situation on different roads with the help of three indicators:

1. Green lines show that there is no traffic.
2. Orange line show that there is moderate traffic.
3. Red line shows that there is heavy traffic.



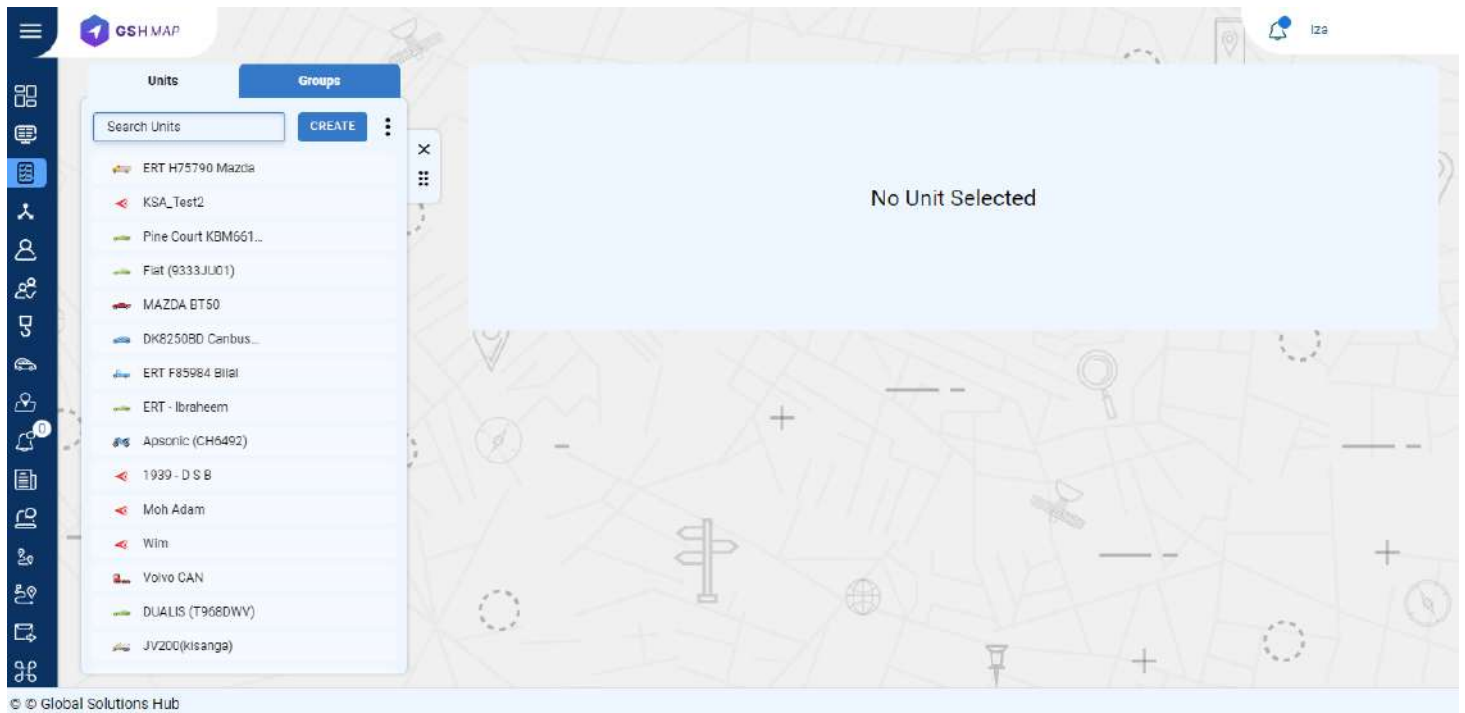
Map Selection:

By clicking on this option, you can select the type of map you want to display on the GSHMAP.



UNITS

In GSHMAP system, units are the most important entity. A unit can be characterized as any type of moving or stationary object that can be monitored. They are assigned a unique identification code in the system to monitor it efficiently. Two modes of display are available in units i.e. "Units" and "Groups".



Create Unit

To create a unit:

- Open the Units component by clicking the Units tab name in the main menu.
- Click on 'CREATE NEW' button.

Enter the required information of the unit

- **Name**

Enter the specific name of the unit. By this name, the unit is shown on the map, in the unit list and some other component.

- **Identifier**

Enter the unique identification code (ID) for the unit required to identify it by the system.

- **Device Model:**

Select the model of the device from the dropdown list.

Enter some extra information related to the unit:

- **Phone number**

Enter the phone number of the unit. The phone number should be in the international format.

• **Category:**

Enter the group from which the unit belongs.

• **Contact:**

Enter the contact number of the unit. The contact number should be in the international format.

Enter the attributes of the unit:

• **Unit password:**

Enter the specific password of the unit. Set the specific password of the unit.

• **Time:**

Select the time Zone of the unit i.e. Asia/Dubai etc.

• **Install Date:**

Enter the install date of the unit.

• **Expire Date:**

Enter the expire of the unit.

• **Tags:**

You can enter different tags for the units to add more information.

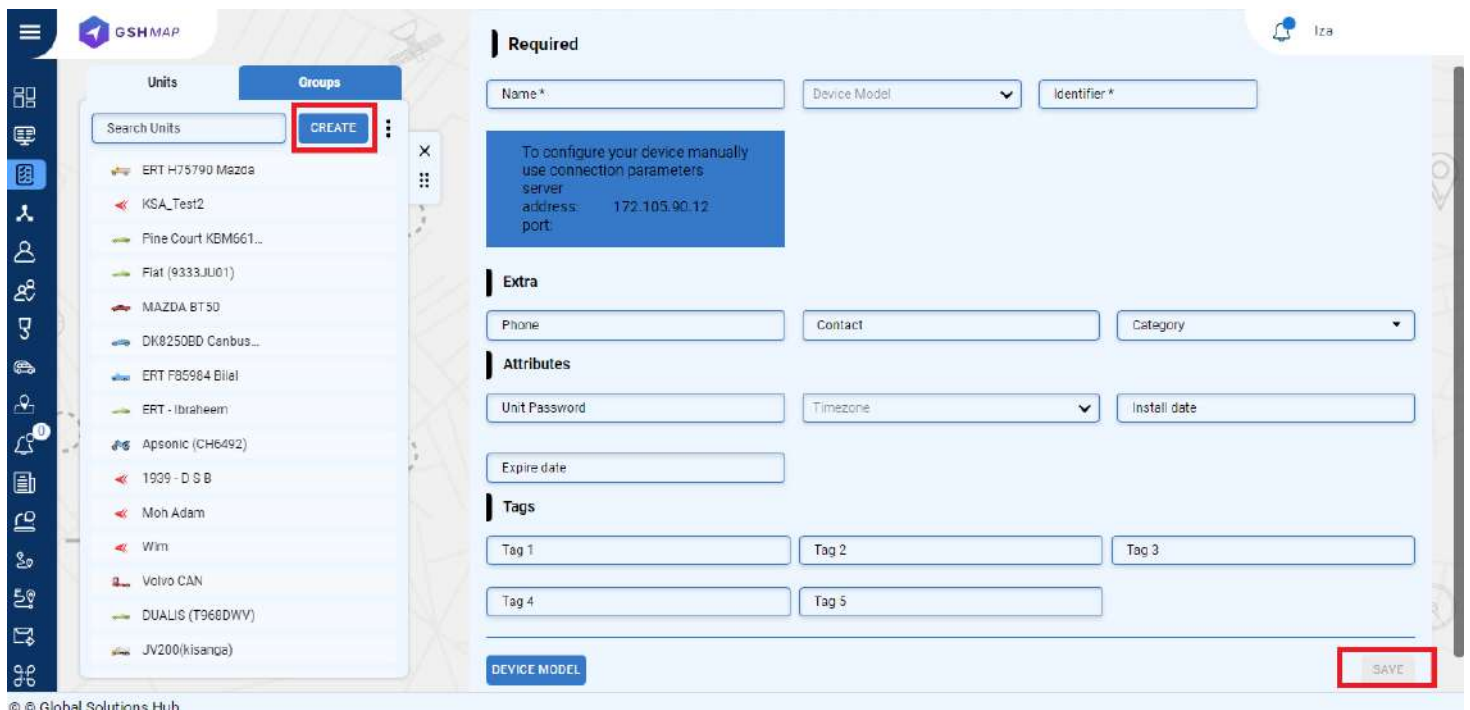
• **Save Button:**

Click on the save button to add the unit.

• **Device Model:**

Check the GSHMAP integrated trackers with their protocol and port by clicking on Device Model.

The Unit will be created successfully and displayed in the units list.

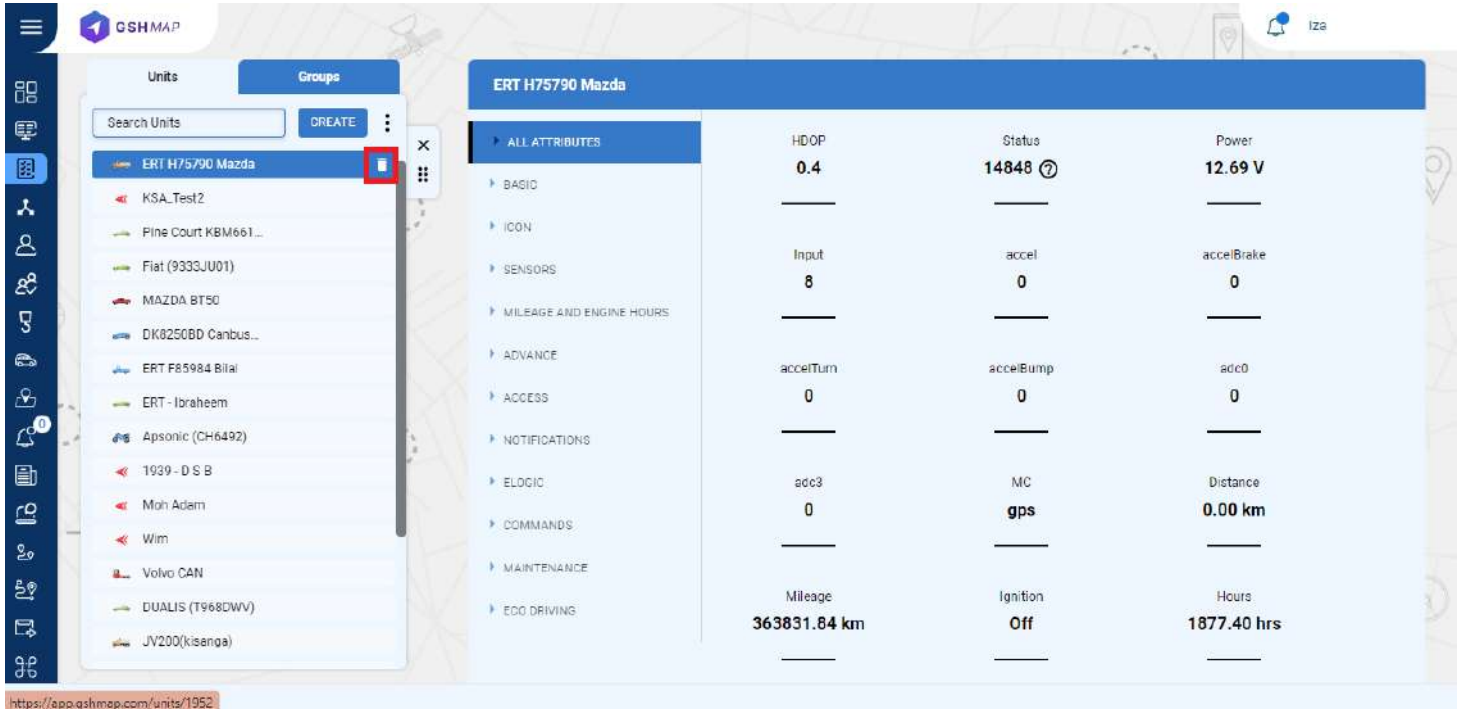


The screenshot displays the GSHMAP web interface for creating a new unit. On the left, a sidebar shows a list of units with a 'CREATE' button highlighted in red. The main form is divided into sections: 'Required' (Name, Device Model, Identifier), 'Extra' (Phone, Contact, Category), 'Attributes' (Unit Password, Timezone, Install date, Expire date), and 'Tags' (Tag 1-5). A blue box provides manual configuration instructions for server address (172.105.90.12) and port. The 'DEVICE MODEL' button is highlighted in blue, and the 'SAVE' button at the bottom right is highlighted in red.

Delete Unit

To delete a unit, follow these steps:

- Go to the unit name and click on Delete icon next to unit name in the units list. The Unit will be deleted successfully and will not be displayed in the units list.



The screenshot shows the GSHMAP interface with a list of units on the left and a detailed view of the 'ERT H75790 Mazda' unit on the right. A red box highlights the trash can icon next to the unit name in the list.

ALL ATTRIBUTES	HDOP	Status	Power
BASIC	0.4	14848	12.69 V
ICGN	Input	accel	accelBrake
SENSORS	8	0	0
MILEAGE AND ENGINE HOURS			
ADVANCE	accelTurn	accelBump	adc0
ACCESS	0	0	0
NOTIFICATIONS			
ELOGIC	adc3	MC	Distance
COMMANDS	0	gps	0.00 km
MAINTENANCE			
ECO DRIVING	Mileage	Ignition	Hours
	363831.84 km	Off	1877.40 hrs

Search Unit

- To find the required unit in the units list, use the search field above units list.
- Enter the required unit name in search field and the matching results will display in the list.



The screenshot shows the GSHMAP interface with a search field highlighted in a red box. The search field contains the text 'exp ID, Name'. The unit 'ERT H75790 Mazda' is selected in the list below.

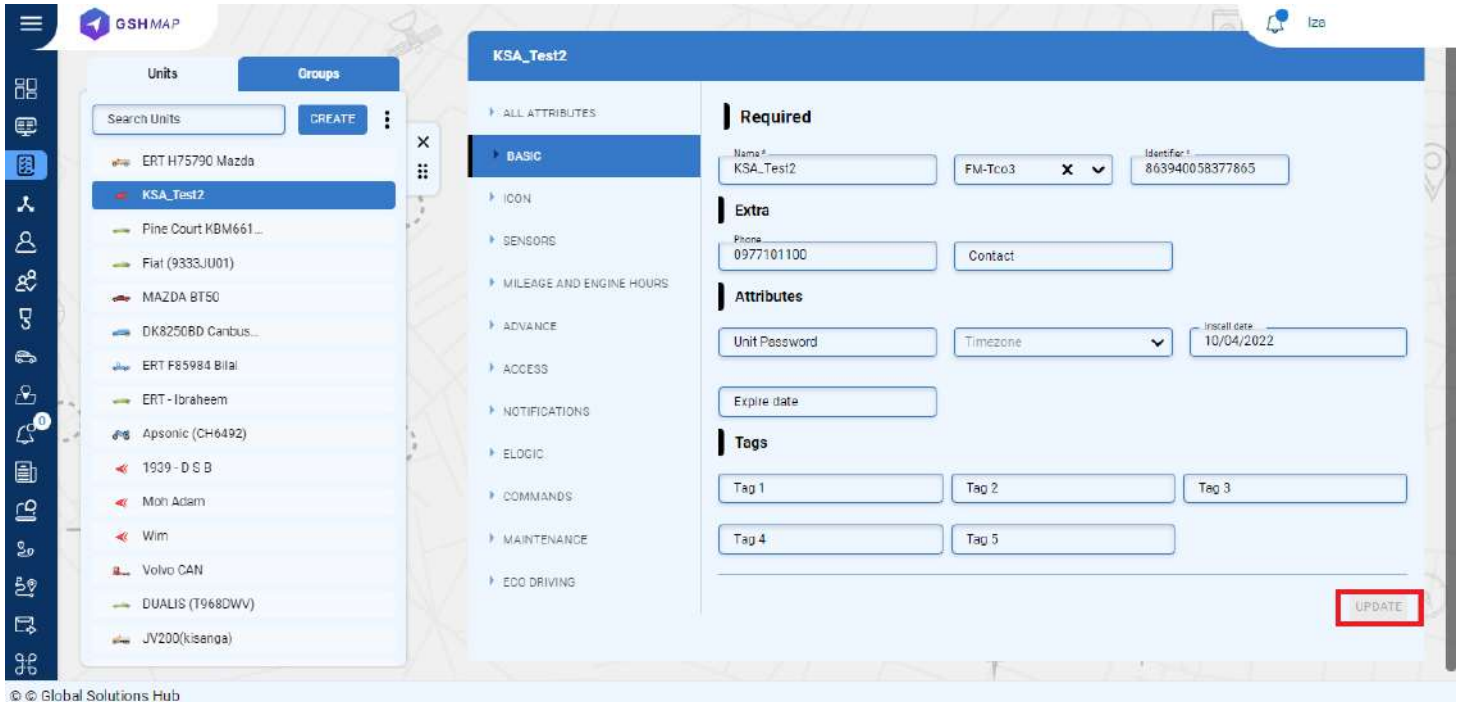
ALL ATTRIBUTES	HDOP	Status	Power
BASIC	0.4	14848	12.69 V
ICGN	Input	accel	accelBrake
SENSORS	8	0	0
MILEAGE AND ENGINE HOURS			
ADVANCE	accelTurn	accelBump	adc0
ACCESS	0	0	0
NOTIFICATIONS			
ELOGIC	adc3	MC	Distance
COMMANDS	0	gps	0.00 km
MAINTENANCE			
ECO DRIVING	Mileage	Ignition	Hours
	363831.84 km	Off	1877.40 hrs

Update unit

To update a unit:

- Click on the unit in the units list.
- Select the Basic tab.
- Update the unit information that user wants to change like name, ID, unit password etc.
- Click on the update button to save the changes.

The unit information will be updated successfully.



The screenshot shows the GSHMAP interface with the 'Units' list on the left and the 'KSA_Test2' unit details on the right. The 'Basic' tab is selected, and the 'UPDATE' button is highlighted in red.

Units List:

- ERT H75790 Mazda
- KSA_Test2**
- Pine Court KBM661...
- Fiat (9333JU01)
- MAZDA BT50
- DK8250BD Canbus...
- ERT F85984 Bilal
- ERT -Ibraheem
- Apsonic (CH6492)
- 1939 - D S B
- Moh Adiam
- Wim
- Volvo CAN
- DUALIS (T968DWV)
- JV200(kisanga)

KSA_Test2 Unit Details:

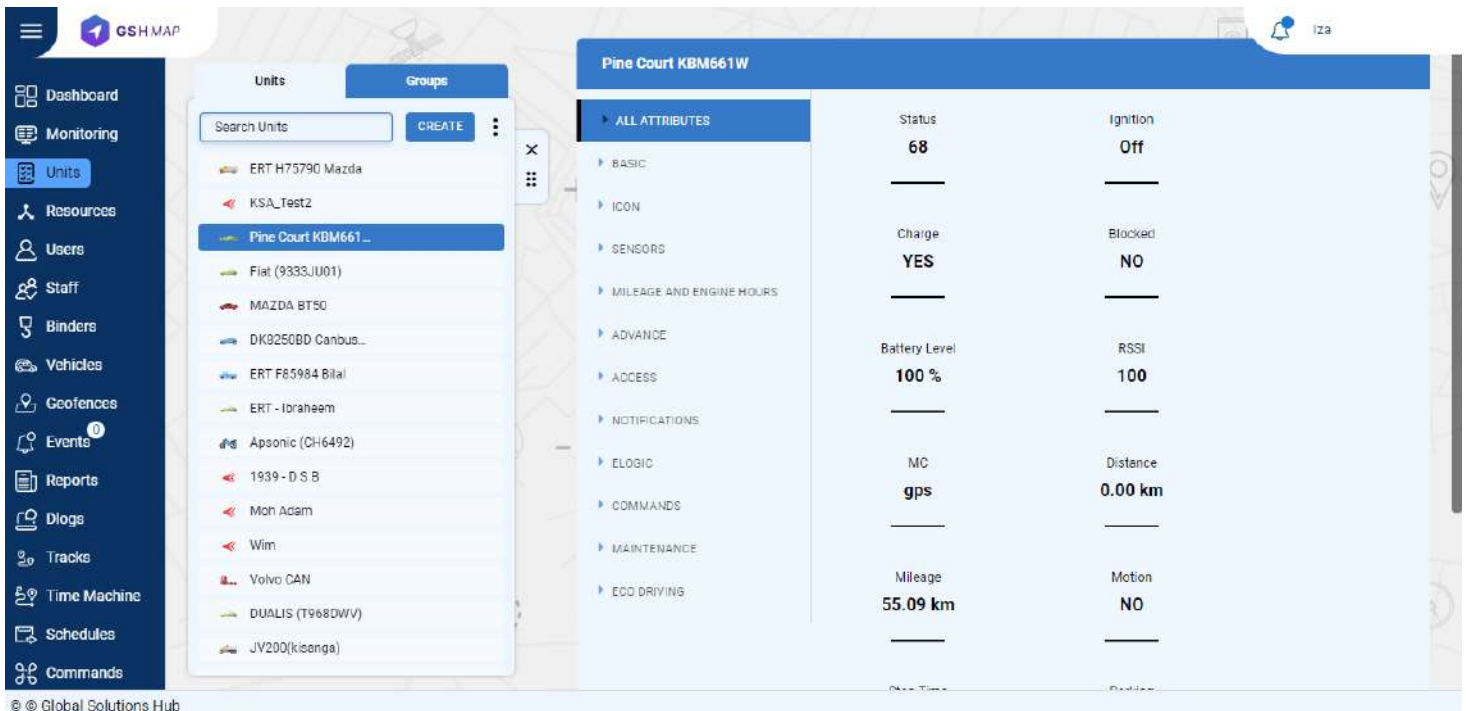
- Required:**
 - Name: KSA_Test2
 - FM-Tag: FM-Tag3
 - Identifier: 863940058377865
- Extra:**
 - Phone: 0977101100
 - Contact:
- Attributes:**
 - Unit Password:
 - Timezone:
 - Install date: 10/04/2022
 - Expire date:
- Tags:**
 - Tag 1:
 - Tag 2:
 - Tag 3:
 - Tag 4:
 - Tag 5:

Units Options

GSHMAP provided several options of the units to offer customization. These options can be displayed by clicking on a unit's name from the list. The number of options can vary depending on provided access rights.

Following are the unit options available in the GSHMAP system

- ALL ATTRIBUTES
- BASIC
- ICON
- SENSORS
- MILEAGE AND ENGINE HOURS
- ADVANCE
- ACCESS
- NOTIFICATIONS
- ELOGIC
- COMMANDS
- MAINTENANCE
- ECO DRIVING



The screenshot displays the GSH MAP interface. On the left is a navigation menu with options like Dashboard, Monitoring, Units, Resources, Users, Staff, Binders, Vehicles, Geofences, Events, Reports, Dialogs, Tracks, Time Machine, Schedules, and Commands. The 'Units' section is active, showing a list of units with 'Pine Court KBM661 W' selected. On the right, the details for this unit are shown under the 'ALL ATTRIBUTES' tab. The details include:

Status	68	Ignition	Off
Charge	YES	Blocked	NO
Battery Level	100 %	RSSI	100
MC	gps	Distance	0.00 km
Mileage	55.09 km	Motion	NO

All Attributes:

In this option, all the data attributes of the selected device can be seen.

Basic

In the Basic option, users can update or set the information about the units.

Following are the information types that can be set or updated:

Required:

- **Name**

Set the specific name of the unit. By this name, the unit is shown on the map, in the unit list and some other component.

- **Device Model:**

Select the model of the tracking device connected to the unit.

- **Identifier**

Set the unique identification code (ID) for the unit required to identify it by the system.

Extra:

- **Phone number**

Set the phone number of the unit. The phone number should be in the international format.

- **Contact**

Set the contact number of the unit. The contact number should be in the international format.

Attributes

- **Unit password**

Set the specific password of the unit. Set the specific password of the unit.

- **Time Zone**

Set the time Zone of the unit i.e. Asia/Dubai etc.

- **Install Date:**

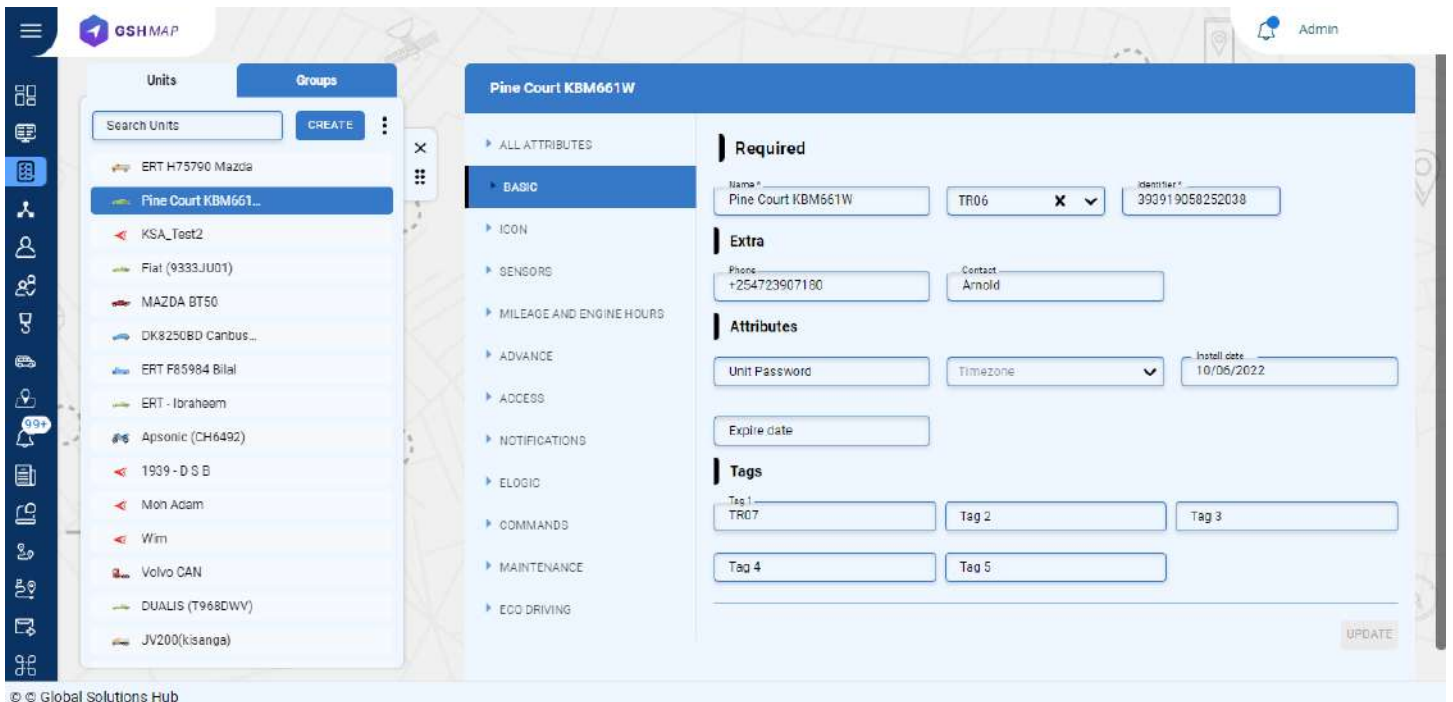
Enter the install date of the unit here.

- **Expire Date:**

Enter the expiry date of the unit here.

- **Tags:**

You can enter different tags for the units to add more information.



The screenshot displays the GSHMAP web application interface. On the left, a sidebar contains navigation icons and a list of units under the 'Units' tab. The selected unit is 'Pine Court KBM661W'. The main content area shows the configuration page for this unit, titled 'Pine Court KBM661W'. The page is divided into several sections:

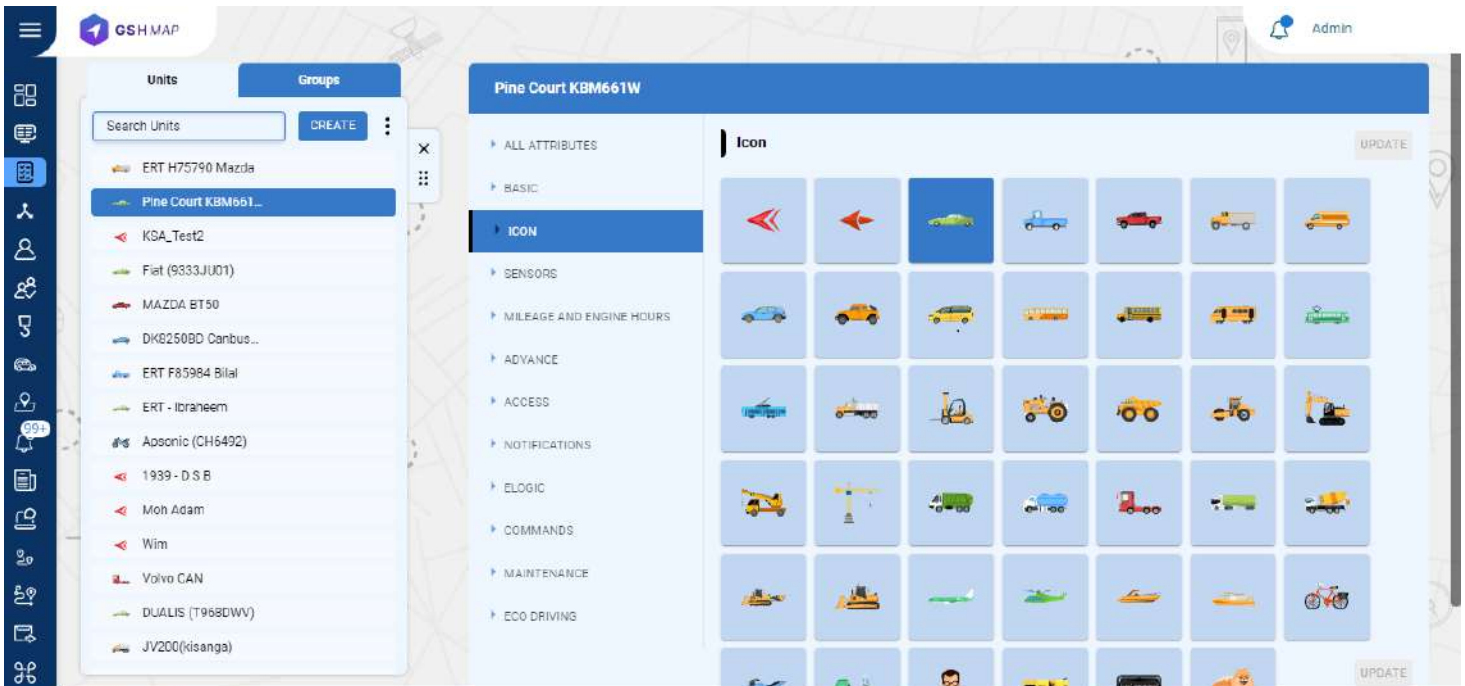
- Required:** Contains fields for 'Name' (Pine Court KBM661W), 'TR06' (with a dropdown arrow), and 'Identifier' (393919058252038).
- Extra:** Contains fields for 'Phone' (+254723907180) and 'Contact' (Arnold).
- Attributes:** Contains fields for 'Unit Password', 'Timezone' (with a dropdown arrow), and 'Install date' (10/06/2022). There is also an 'Expire date' field.
- Tags:** Contains five input fields labeled 'Tag 1' through 'Tag 5'. 'Tag 1' contains the value 'TR07'.

At the bottom right of the configuration area, there is an 'UPDATE' button. The footer of the page reads '© Global Solutions Hub'.

Icon

In the Icon tab of the Unit options, users can select any icon to display unit in the system. There are standard icons of different types provided by GSHMAP that can be used to represent units.

- To choose or change an icon for a unit, click on the ICON tab.
- Select the specific icon for a unit.
- Click on Update button to set the icon of a unit.

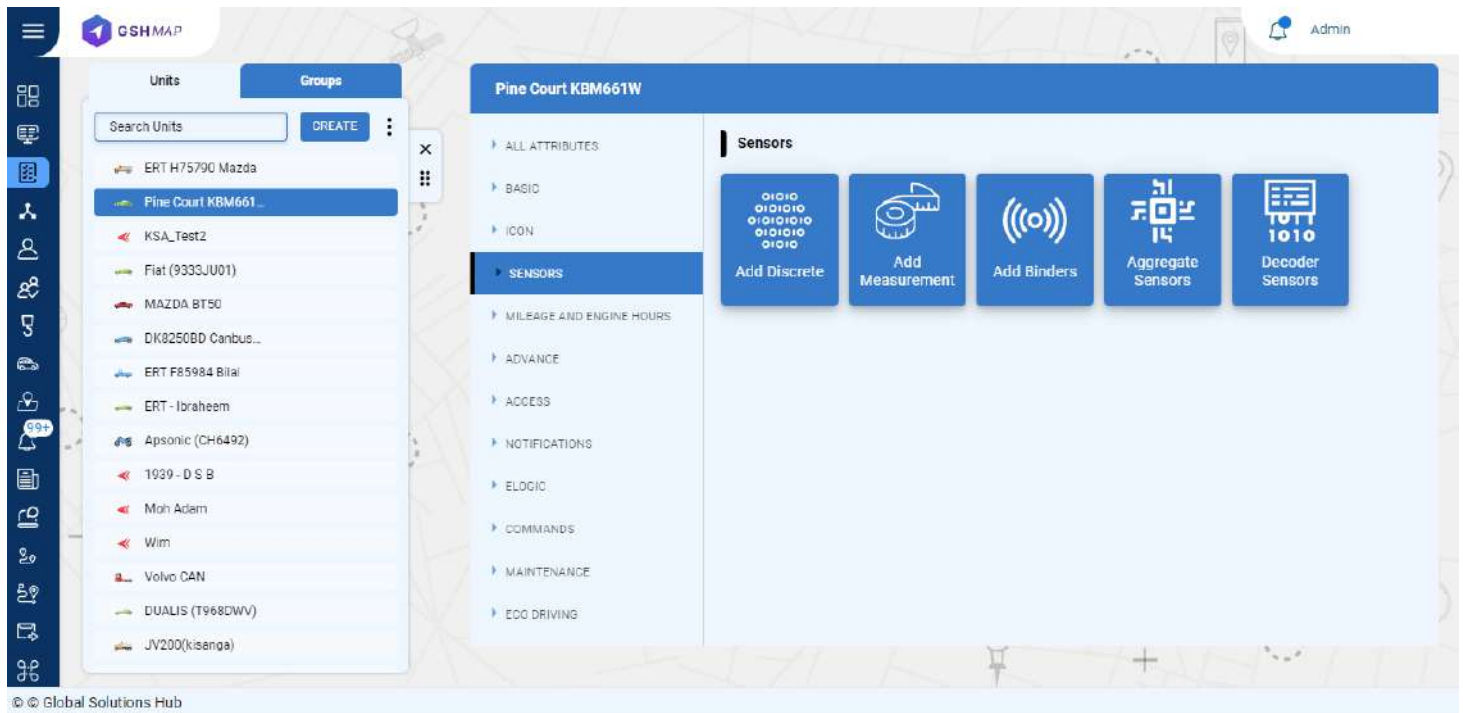


The screenshot displays the GSHMAP web interface. On the left, a sidebar contains navigation icons. The main content area is divided into two panels. The left panel, titled 'Units', shows a list of units with 'Pine Court KBM661W' selected. The right panel, titled 'Pine Court KBM661W', shows a list of configuration tabs including 'ALL ATTRIBUTES', 'BASIC', 'ICON', 'SENSORS', 'MILEAGE AND ENGINE HOURS', 'ADVANCE', 'ACCESS', 'NOTIFICATIONS', 'ELOGIC', 'COMMANDS', 'MAINTENANCE', and 'ECO DRIVING'. The 'ICON' tab is active, displaying a grid of various vehicle and equipment icons. A green car icon is selected. An 'UPDATE' button is visible in the top right corner of the icon selection area.

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Sensors

The Sensors tab in the Unit options, displays a list of all the sensors created for this unit. GSHMAP provides five different options to add sensors: discrete, measurement, binders, aggregate sensors and decoder sensors. The sensors can be viewed, edited and deleted by clicking on the SENSORS tab. Users need to have access right to create, edit, and delete sensors, otherwise, they can only view existing sensors. By clicking on the SENSORS tab, user can view the information about all three sensors created for the selected unit.



Create Sensor

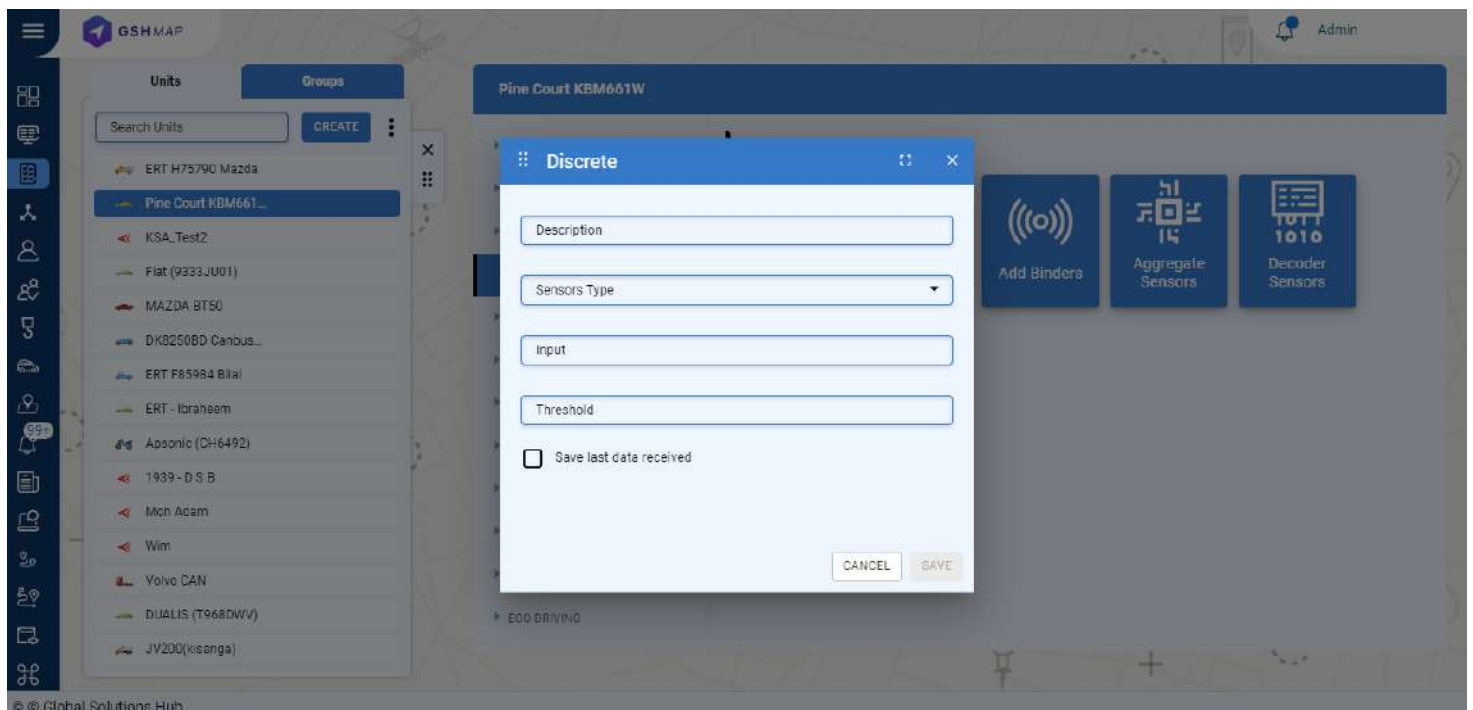
GSHMAP provides different options to add sensors:

- Add discrete
- Add measurement
- Add Binders
- Aggregate Sensors
- Decoder Sensors

To Add Discrete:

It is a digital sensor that gives the input in the form of true false. It is normally used to check the trueness of a condition. For example, if you add ignition sensor then you will get the result in ON/OFF.

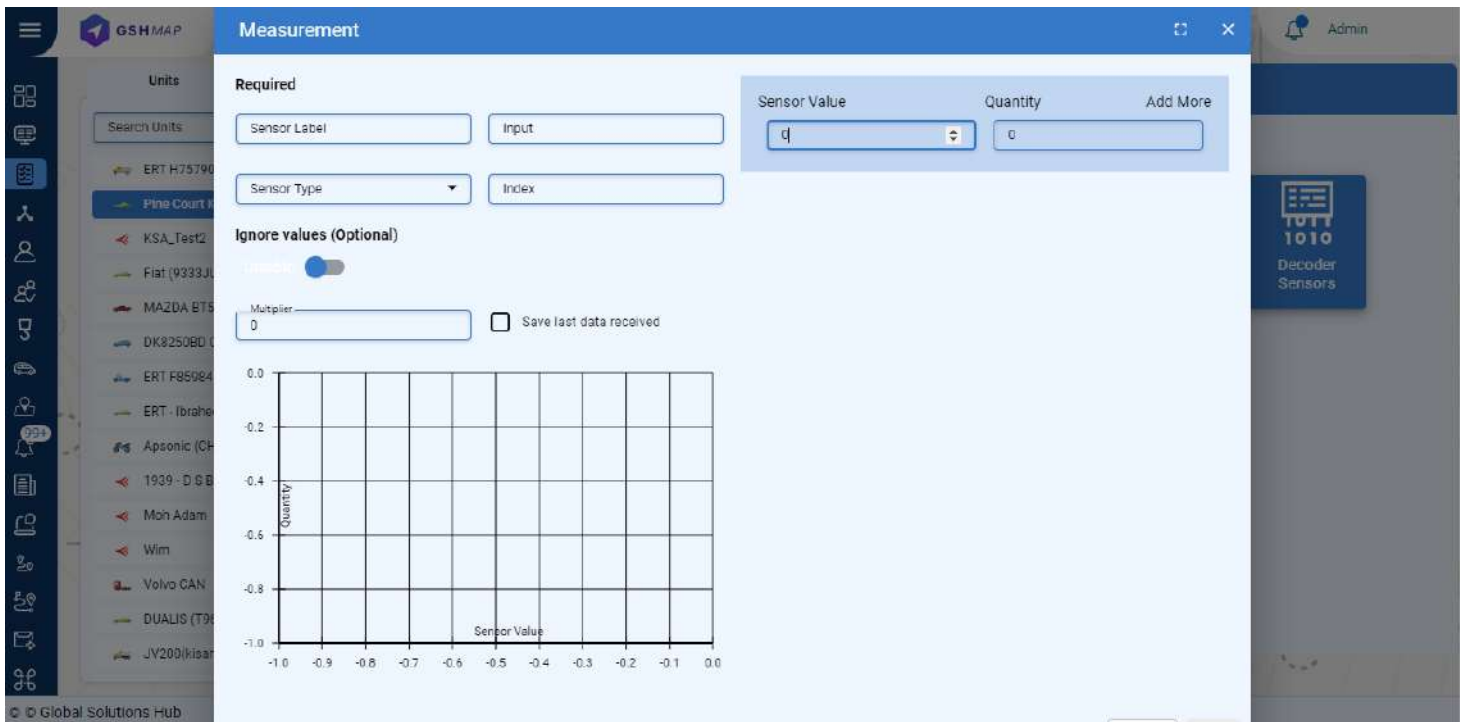
- Click on the Add Discrete button.
- Enter the description of the sensor with which you want to display it.
- Select the sensors type from the dropdown list.
- Select the Input of data type like odometer, distance, mileage from the list.
- Select a Threshold value after which you want sensor to start collecting data.
- Check the 'Save last data received' checkbox to save last received data.
- Click on SAVE button to save changes.
- Click on Cancel button to dismiss changes.



To Add Measurement:

The measurement sensor is used for performing calibration on different inputs fetched from the device. At times, the device does not send data in the form that has to be displayed on the software. By applying calibration, you can display the inputs from the device in the required form. For example, if the device is sending data in the form of voltage, we can convert it into temperature, fuel consumption or any other such parameter.

- Click on the Add measurement button.
- Enter the required information like Sensor label, Input, Sensor type.
- Select the sensors type from the dropdown list.
- Select the measurement unit and accuracy.
- Enter Sensor value and Quantity.
- By clicking on 'Add More' option, multiple sensor value' and 'quantity' can be set.
- By clicking on the bin icon next to 'Quantity', the entries can be deleted.
- Enter the Ignore Values (Optional) which is the range of data that has to be fetched. Any value below the lower limit and above the upper limit will be ignored.
- Add value in the Multiplier option that multiplies the data value with the enter number.
- Check the 'Save last data received' checkbox to save last received data.
- Use sensor value and quantity to perform calibration according to your requirement.
- Click on Save button to update changes.



The screenshot displays the 'Measurement' configuration window in the GSHMAP application. On the left, a sidebar lists various units such as 'ERT H75790', 'Pine Court', 'KSA_Test2', 'Flat (9333.J...', 'MAZDA ET5', 'DK8250BD...', 'ERT F85084', 'ERT - Ibrahe', 'Apsonic (CH', '1939 - D & B', 'Moh Adam', 'Wim', 'Volvo CAN', 'DUALIS (T3', and 'JV200(kisat'. The main area is titled 'Measurement' and contains several sections:

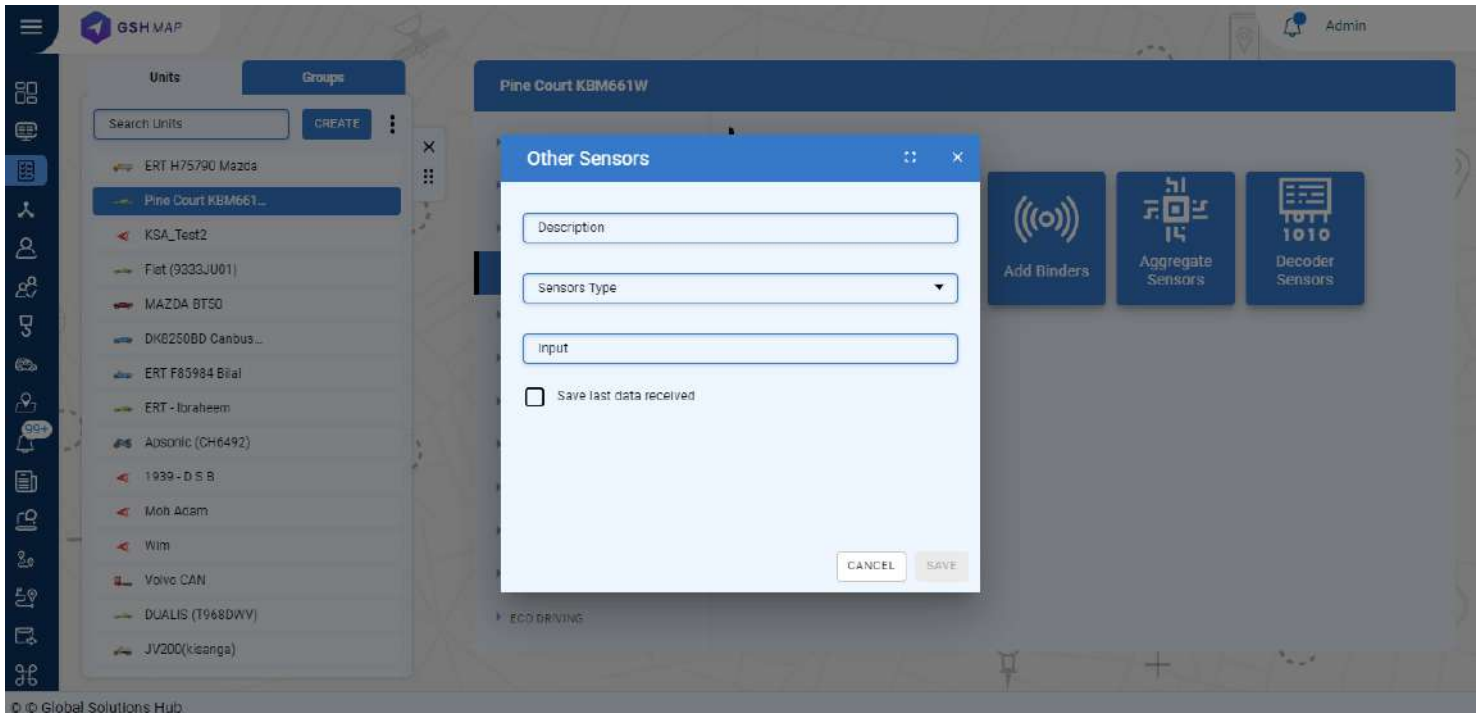
- Required:** Fields for 'Sensor Label', 'Input', 'Sensor Type' (a dropdown menu), and 'Index'.
- Ignore values (Optional):** A toggle switch for 'Ignore values', a 'Multiplier' field with the value '0', and a 'Save last data received' checkbox.
- Graph:** A coordinate system with 'Quantity' on the y-axis (ranging from -1.0 to 0.0) and 'Sensor Value' on the x-axis (ranging from -1.0 to 0.0).
- Input Fields:** A highlighted blue box contains 'Sensor Value' (a dropdown menu with 'd' selected) and 'Quantity' (a text input field with '0'). An 'Add More' button is located to the right of these fields.

The bottom left corner of the application shows the copyright notice: '© Global Solutions Hub'.

Add Binders :

It includes the verification sensors for driver, passenger and trailers. When a unique ID is punched, it verifies that the authorized driver, passenger or trailer is attached to the unit.

- Click on the Add Binders button.
- Enter the description of the sensor.
- Select the sensors type from the dropdown list.
- Enter the Input on which that ID is coming from the device.
- Check the 'Save last data received' checkbox to save last received data.
- Click on Save button to update changes.



Aggregate Sensors:

It is used to calculate aggregate values from the input data. When the device is sending data on certain parameters, you can calculate the value of missing parameter. For example, if device is sending data speed and time then you can calculate distance from it by applying the formula $\text{distance} = \text{speed} * \text{time}$. You can add the inputs on which the speed and time data is being received and apply multiplication (*) operation on it to get distance value. Similarly collective fuel reading of two fuel tanks can be calculated by adding Fuel Tank 1 and Fuel Tank 2 inputs.

• Description:

Enter the name with which you want to identify the sensor.

• Sensor Type:

There is option of many default sensors along with custom sensor types. The default sensor types are given below:

- Driver ID
- Passenger ID
- Trailer UUID
- Ignition
- Panic Button
- External Power
- Engine Status
- Car Alarm
- Doors
- Fuel

Temperature
RPM
Board Power
Mileage
Speed
Counter
Avg. Fuel Consumption
Inst. Fuel Consumption
Flow Meter

- **Attributes:**

Click on this option and all the data attributes of the selected unit will be displayed. Select the attribute on which you want to apply operation on both the sides.

- **Operator:**

Select the arithmetic operation from the list which has to be applied on the attributes.

- **Return Type:**

Select the return type in which you want to display the result. There are three available options.

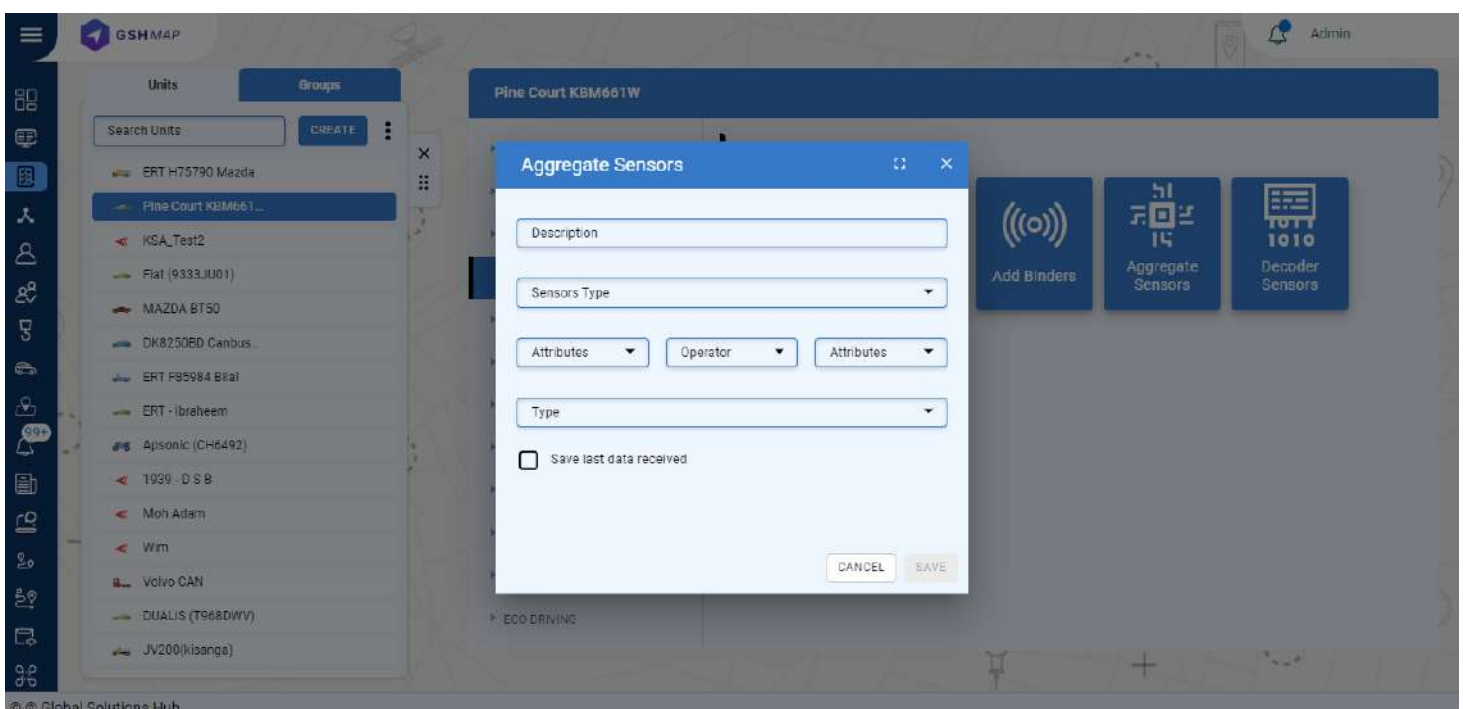
String

Number

Boolean

- **Save last data received:**

By clicking this option, the software will consider the last value otherwise not. It is usually used when the new data value from the device is delayed so the last saved data will be considered.



Decoder Sensors:

Decoder Sensors are used to convert data in your required format. For example, Decimal, Binary, Hexadecimal etc.

- **Description:**

Enter the description of the sensor.

- **Attribute:**

Enter the attribute of the data format that you want to convert.

- **Input:**

Enter the data input on which that data format is being received.

- **Value From:**

Select the data format which you want to convert from the dropdown list.

- **Conversion:**

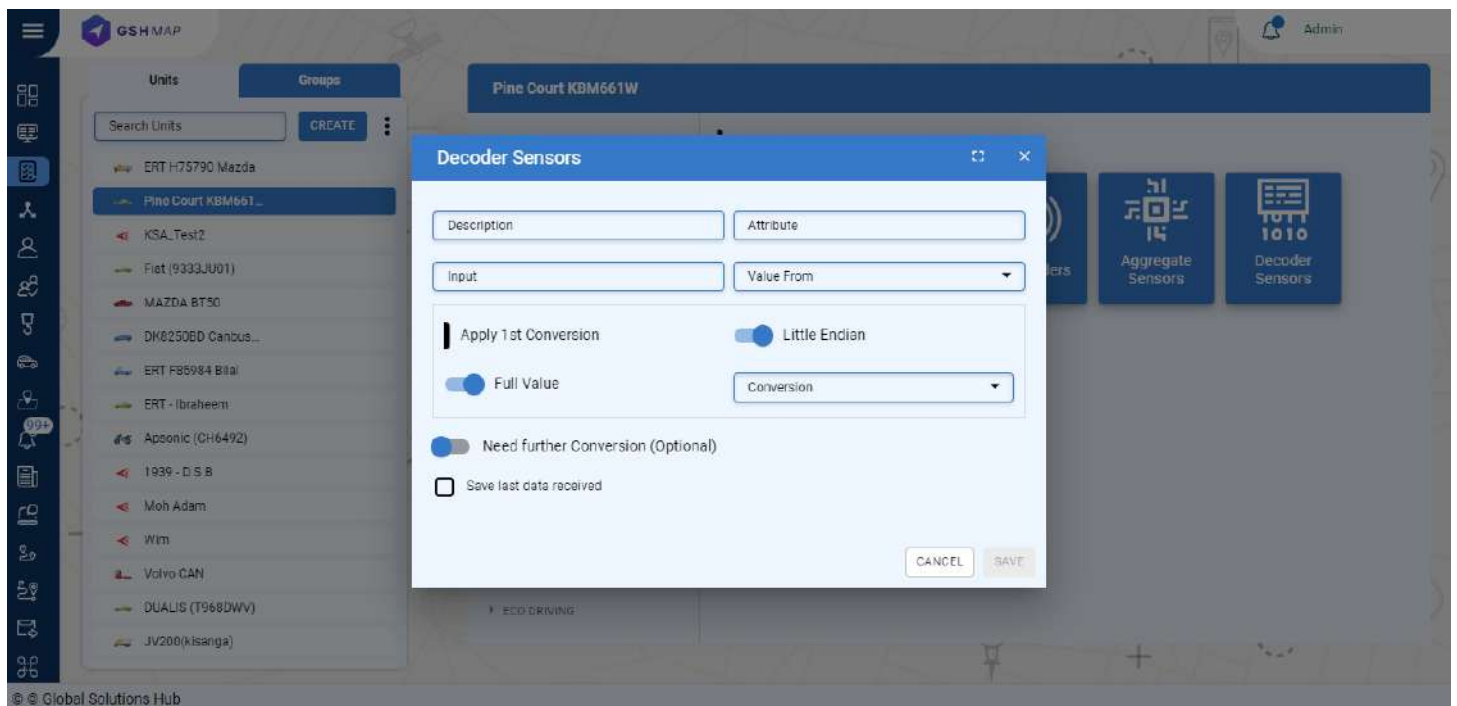
Select the data format in which you want to convert the value.

- **Need Further Conversion:**

Click on this option for further conversion.

- **SAVE:**

Click on the save button to create the sensor.



Delete Sensor

To delete a sensor:

- Select the sensor from the sensors list and click on Delete icon next to its name.
- The sensor will be deleted successfully and will not be displayed in the sensors list.

Update Sensor

To update a sensor:

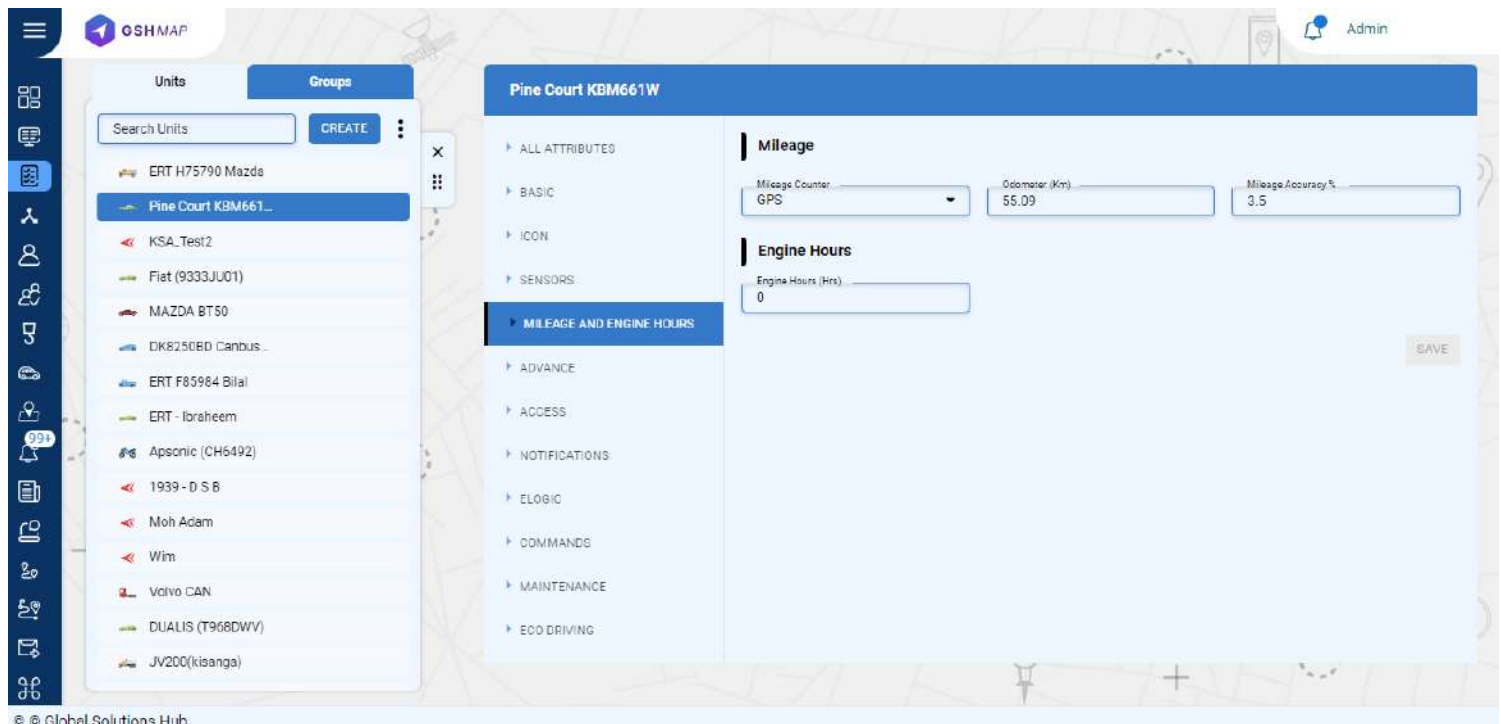
- Select the sensor from the sensors list and click on Edit icon next to sensor name.
 - Change the information that you want to update and then click on UPDATE button.
- The sensor information will be updated successfully.

Mileage and Engine Hours

Mileage counter is used to calculate the distance. Mileage counter is widely used in the GSHMAP in online monitoring, as well as in reports.

The mileage counter can be set with the following calculating methods:

- GPS: Mileage is calculated by GPS coordinates (possible for any unit).
- Device Odometer: Mileage is calculated according to the relative odometer sensor which counts the distance traveled since the last message.
- Alternative sensor: Mileage is calculated by alternative sensor and given input.



The screenshot displays the GSHMAP interface. On the left, a sidebar shows a list of units, with 'Pine Court KBM661W' selected. The main panel shows the configuration for this unit. The 'Mileage Counter' is set to 'GPS', the 'Odometer (Km)' is 55.09, and the 'Mileage Accuracy %' is 3.5. The 'Engine Hours' is set to 0. A 'SAVE' button is visible at the bottom right of the configuration panel.

Units

Search Units **CREATE**

- ERT H75790 Mazda
- Pine Court KBM661W**
- KSA_Test2
- Flet (9333JU01)
- MAZDA BT50
- DK8250BD Canbus...
- ERT F85984 Bilal
- ERT - Ibraheem
- Apeonic (CH6492)
- 1939 - D S B
- Moh Adam
- Wim
- Volvo CAN
- DUALIS (T968DWV)
- JV200(kisanga)

Pine Court KBM661W

- ALL ATTRIBUTES
- BASIC
- ICON
- SENSORS
- MILEAGE AND ENGINE HOURS**
- ADVANCE
- ACCESS
- NOTIFICATIONS
- ELOGIC
- COMMANDS
- MAINTENANCE
- EOD DRIVING

Mileage

Mileage Counter: Odometer (Km): Mileage Accuracy %:

Engine Hours

Engine Hours (Hrs):

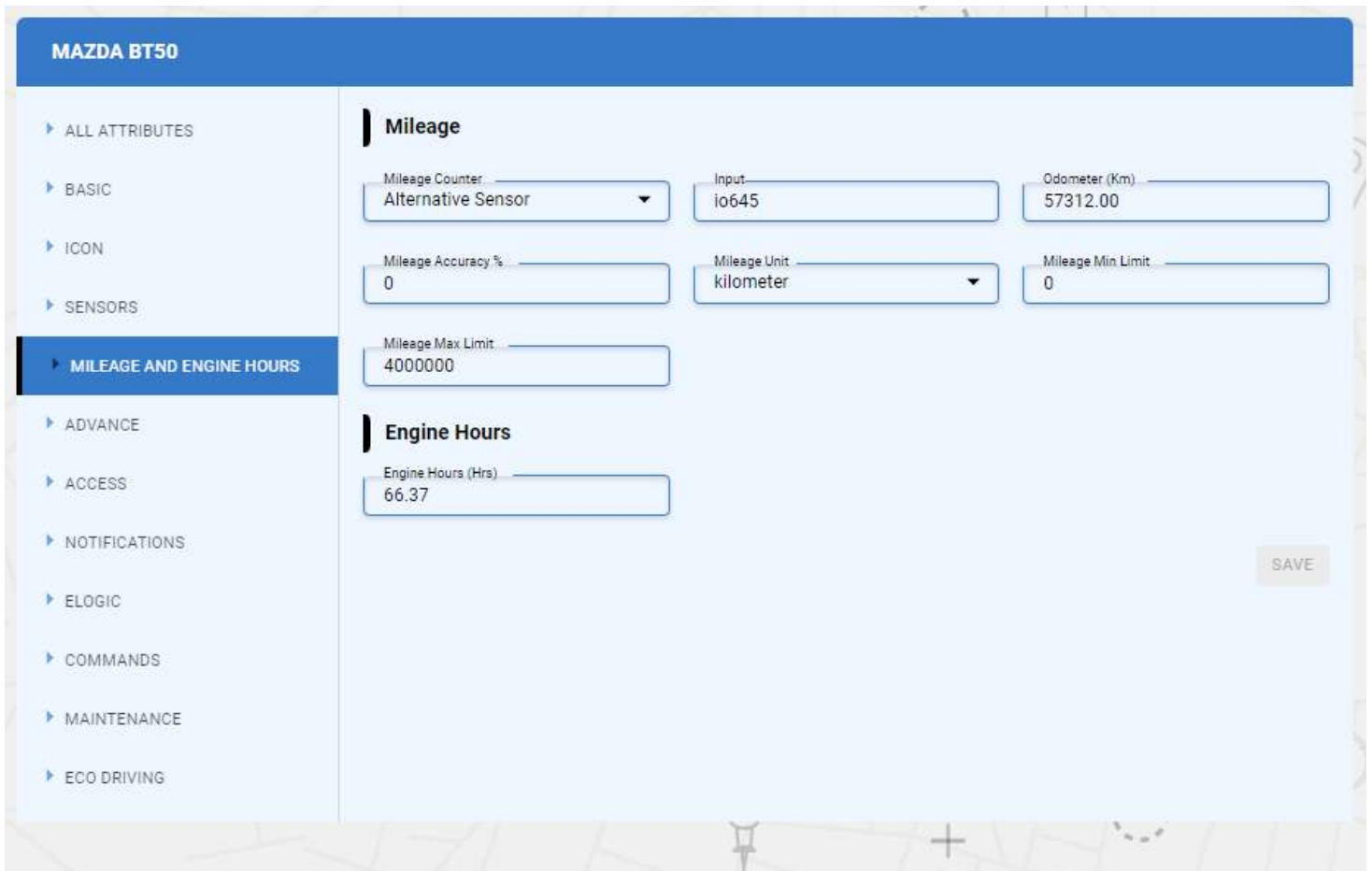
SAVE

© Global Solutions Hub

Engine Hours

The engine hours counter is used to calculate the engine hours (hrs.). The engine hours counter is widely used in online monitoring, tracks as well as in reports.

- The engine hours counter can be set by entering fractional value in the engine hours field (engine hours are measured in hours).
- User can enter a fractional value for the engine hours counter (It is displayed with accuracy to two decimal places i.e. 3526.19).



MAZDA BT50

▶ ALL ATTRIBUTES

▶ BASIC

▶ ICON

▶ SENSORS

▶ MILEAGE AND ENGINE HOURS

▶ ADVANCE

▶ ACCESS

▶ NOTIFICATIONS

▶ ELOGIC

▶ COMMANDS

▶ MAINTENANCE

▶ ECO DRIVING

Mileage

Mileage Counter:

Input:

Odometer (Km):

Mileage Accuracy %:

Mileage Unit:

Mileage Min Limit:

Mileage Max Limit:

Engine Hours

Engine Hours (Hrs):

SAVE

Advance

In the Advance tab of the unit's options, the trip detector is configured in the Units. Trip detector is used to detect movement intervals like trips and idling (stops).

GSHMAP provided two main methods to detect movement:

GPS speed: It can be applied to any device type and configuration.

Engine ignition sensor: It is used for the units that have ignition sensor.

Detection of Movement States

Minimal No Data Duration (Seconds): It is the minimum no data duration for ending a trip. For example, if the minimal no data duration is set 10 minutes, the trip would end if the device does not send any data for more than 10 minutes.

Minimal Parking/ Idling Duration (Seconds): set the minimal parking duration (seconds) which is the time for which unit must be motionless to consider the parking and idling condition. For example, consider the case where minimal parking/idling duration is set for 5 minutes. It means that when the car is stopped for more than 5 minutes and its engine is ON, it is in idling state. Similarly, if the car is stopped for more than 5 minutes and its engine is OFF, it is in parking state.

Minimal Trip Duration (Seconds): Set the minimal trip duration in seconds which is the minimum time limit of travelling after which the trip is detected. User can set the minimum trip duration (Seconds) at low values for detecting short-lived movements as trips. On the contrary, you can set minimum trip duration (Seconds) at a high value for detecting considerable time span as trips.

Minimal Trip Distance (Meter): It indicates the minimum distance after which trip is detected. It is advisable no to set distance too small as any slight movement of the unit would be considered as a trip.

Speed Threshold (km/h): Set the speed threshold in km/h of a unit which is the lower speed limit after which the movement is detected as a trip.

Process Invalid Positions:

If you want to show invalid positions like 0 latitude 0 longitude sent from the device, check this option. If you want to ignore them, keep it unchecked.

Fuel Filling/Drain Detection:

Minimal Fuel Filling Volume:

It is the minimal fuel volume after which filling is detected.

Minimal Fuel Drain Volume:

It is the minimal fuel volume after which drainage is detected.

Consecutive Fuel Filling Timeout:

It is the minimal time between two consecutive fillings to identify them as two separate fillings.

Consecutive Fuel Drain Timeout:

It is the minimal time between two consecutive drains to identify them as two separate drains.

Detection in Motion:

Check this option if you want to show the fuel levels in motion state as well.

Use Fuel Accuracy:

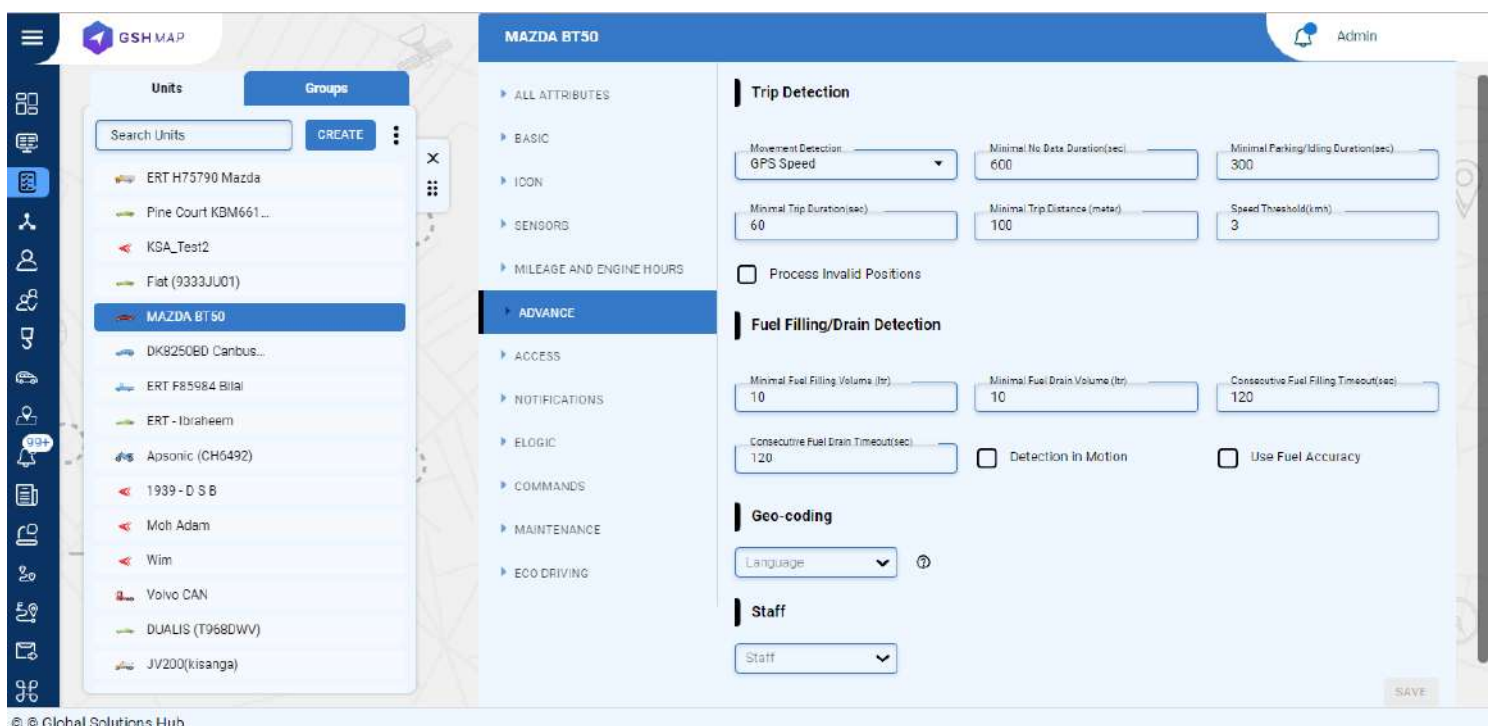
Apply correctional accuracy on fuel readings to ignore drastic deviations.

Geocoding:

Select the language to display on the map.

Staff:

Attach any staff manually with the unit using this option.



MAZDA BT50

- ALL ATTRIBUTES
- BASIC
- IDON
- SENSORS
- MILEAGE AND ENGINE HOURS
- ADVANCE**
- ACCESS
- NOTIFICATIONS
- ELOGIC
- COMMANDS
- MAINTENANCE
- ECO DRIVING

Trip Detection

Movement Detection: GPS Speed

Minimal No. Data Duration(sec): 600

Minimal Parking/Idling Duration(sec): 300

Minimal Trip Duration(sec): 60

Minimal Trip Distance (meter): 100

Speed Threshold(kmh): 3

Process Invalid Positions

Fuel Filling/Drain Detection

Minimal Fuel Filling Volume (ltr): 10

Minimal Fuel Drain Volume (ltr): 10

Consecutive Fuel Filling Timeout(sec): 120

Consecutive Fuel Drain Timeout(sec): 120

Detection in Motion

Use Fuel Accuracy

Geo-coding

Language: English

Staff

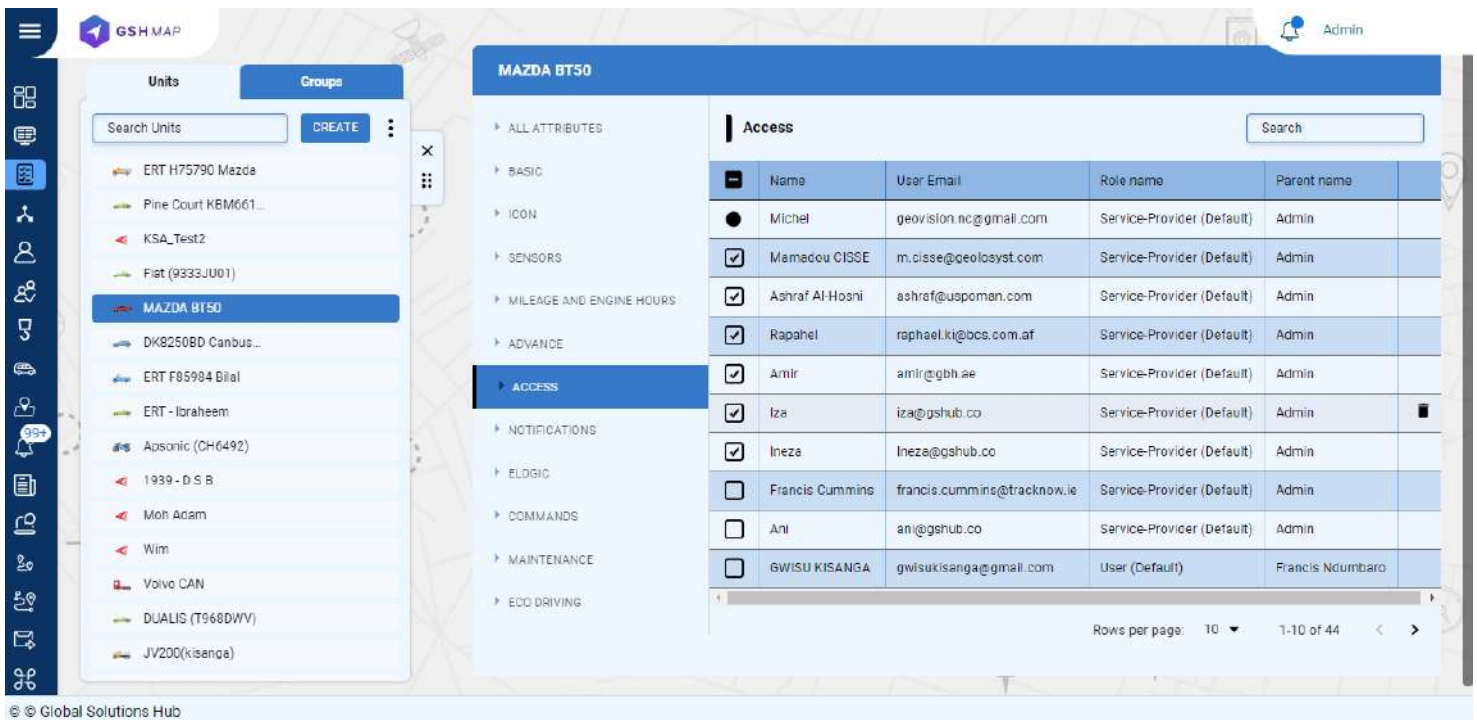
Staff: [Empty]

SAVE

Access

In the Access tab of the Unit options, users can manage the access rights of different users towards the unit. The users with the right tick in the check boxes are those who already have some access to this unit. The users with the empty check boxes are those who doesn't have access to this unit.

- To give unit's access to the users, click on the Access tab.
- Check the checkbox before the name of the users to give them access to users.
- To give access to all the users at once, press the 'Assign all' option before the name option.
- Press OK button to assign access of unit to all users.



The screenshot shows the GSHMAP interface. On the left, a sidebar lists various units, with 'MAZDA BT50' selected. The main area is divided into two panels. The left panel shows a menu with 'ACCESS' highlighted. The right panel displays the 'Access' configuration for 'MAZDA BT50', featuring a table of users and their access status.

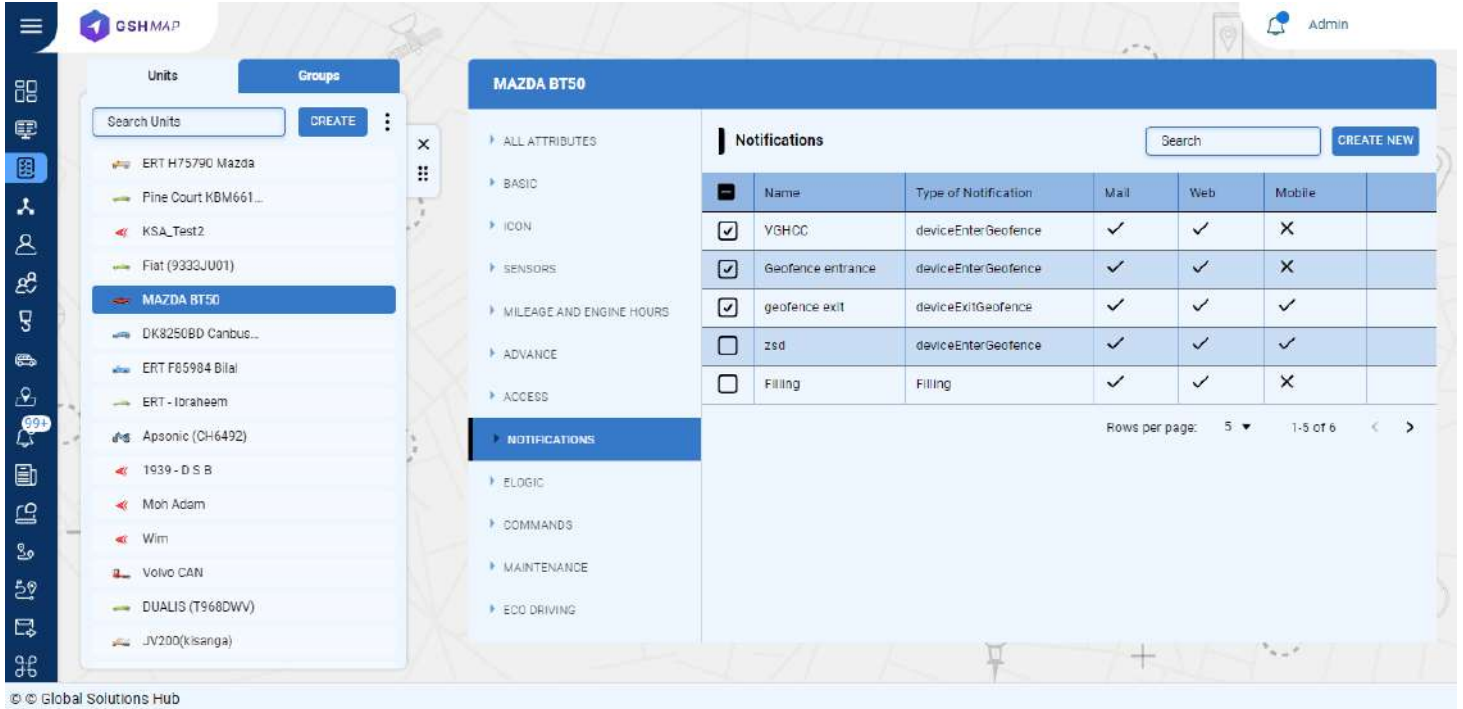
	Name	User Email	Role name	Parent name	
<input type="checkbox"/>	Michel	geovision.nc@gmail.com	Service-Provider (Default)	Admin	
<input checked="" type="checkbox"/>	Mamadou CISSE	m.cisse@geolosyst.com	Service-Provider (Default)	Admin	
<input checked="" type="checkbox"/>	Ashraf Al-Hosni	ashraf@uspomen.com	Service-Provider (Default)	Admin	
<input checked="" type="checkbox"/>	Raphael	raphael.ki@bcs.com.af	Service-Provider (Default)	Admin	
<input checked="" type="checkbox"/>	Amir	amir@gshub.ae	Service-Provider (Default)	Admin	
<input checked="" type="checkbox"/>	Iza	iza@gshub.co	Service-Provider (Default)	Admin	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Ineza	Ineza@gshub.co	Service-Provider (Default)	Admin	
<input type="checkbox"/>	Francis Cummins	francis.cummins@tracknow.ie	Service-Provider (Default)	Admin	
<input type="checkbox"/>	Ani	ani@gshub.co	Service-Provider (Default)	Admin	
<input type="checkbox"/>	GWISU KISANGA	gwisukisanga@gmail.com	User (Default)	Francis Ndumbaro	

Rows per page: 10 | 1-10 of 44

Notifications

In the notifications tab, users can create, edit, delete or view notifications and can assign notifications to the units.

In the GSHMAP, user can be notified about any unit activity or change. It can be sensors values, change of location, speeding and others. A notification can be delivered by mail or web (display online in a popup window), mobile notifications and SMS. User need to have access right to create, edit, assign and delete notifications, otherwise, user can only view existing notifications.



The screenshot shows the GSHMAP interface for configuring a unit named 'MAZDA BT50'. On the left, there is a sidebar with a list of units, including 'ERT H75790 Mazda', 'Pine Court KBM661...', 'KSA_Test2', 'Fiat (9333JU01)', 'MAZDA BT50' (selected), 'DK8250BD Canbus...', 'ERT F65984 Bilal', 'ERT - Ibraheem', 'Apsonic (CH6492)', '1939 - D S B', 'Moh Adsm', 'Wim', 'Volvo CAN', 'DUALIS (T968DWV)', and 'JV200(kisanga)'. The main content area is titled 'MAZDA BT50' and features a 'Notifications' table. The table has columns for 'Name', 'Type of Notification', 'Mail', 'Web', and 'Mobile'. The following table represents the data shown in the screenshot:

	Name	Type of Notification	Mail	Web	Mobile
<input checked="" type="checkbox"/>	YGHCC	deviceEnterGeofence	✓	✓	✗
<input checked="" type="checkbox"/>	Geofence entrance	deviceEnterGeofence	✓	✓	✗
<input checked="" type="checkbox"/>	geofence exit	deviceExitGeofence	✓	✓	✓
<input type="checkbox"/>	zed	deviceEnterGeofence	✓	✓	✓
<input type="checkbox"/>	Filling	Filling	✓	✓	✗

At the bottom of the table, it indicates 'Rows per page: 5' and '1-5 of 6'. The footer of the page reads '© Global Solutions Hub'.

Create Notification

Notification can be created for individual units and groups.

To create a notification:

- Click on the Create new button.

Functional Type:

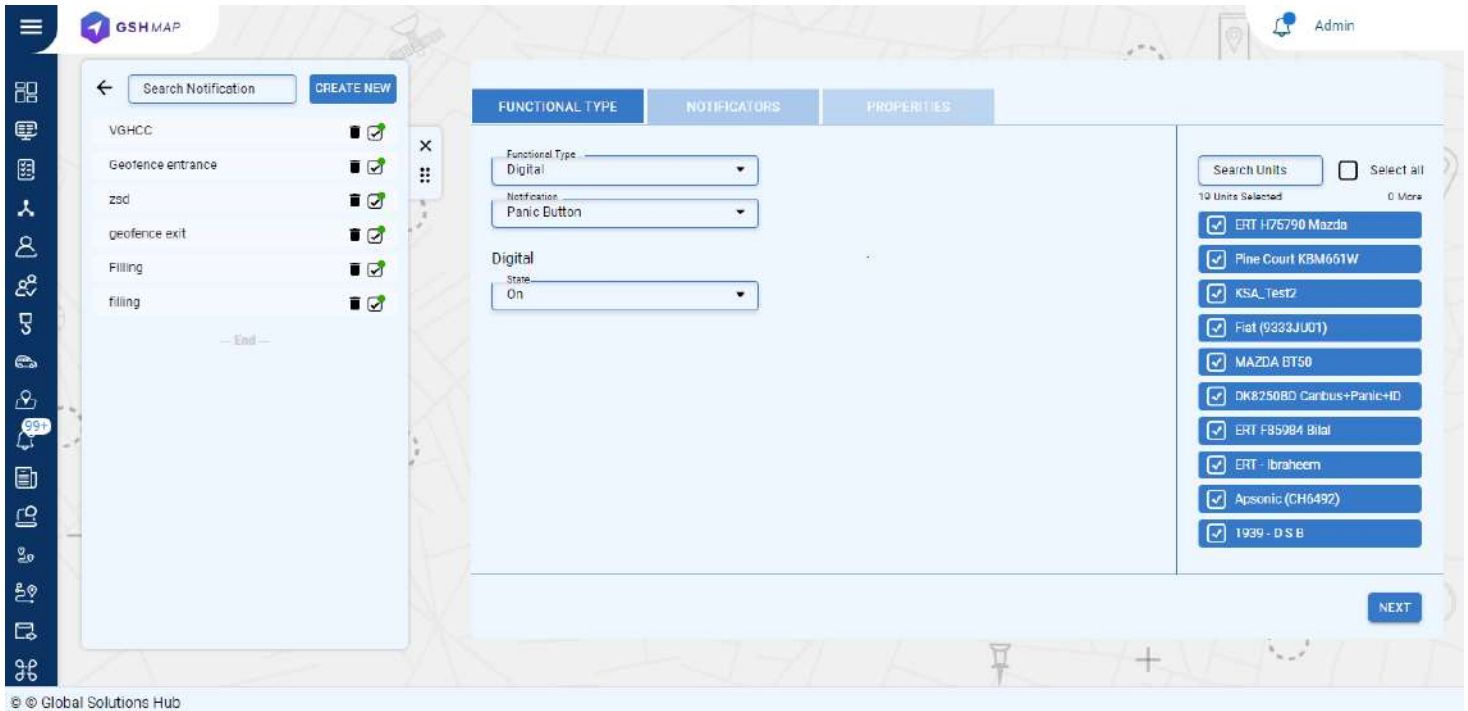
- Select the functional type of notification from dropdown list including Movement, Maintenance.

Reminder, Digital, Analog etc.

- Select the Unit, Group or Staff to assign notification. In case of maintenance reminder, you cannot select the unit from this option. You can create a maintenance notification and assign it to a unit from the 'MAINTENANCE' module.
- Select All Units check box (optional: If user select this check box then created notification is automatically assigned to all units).
- Click on the 'NEXT' button.

Notificators:

- Select 'NOTIFICATORS' for setting notification medium from email, web popup, and mobile notifications.
- Click on Next button.



Properties:

Basic:

- **Name:**

Enter the name of the notification in this option.

- **Description:**

Enter any description that you want to add for the notification.

- **Alarm State/sec:**

Enter the alarm state (in seconds) which is the duration for which you want to trigger the notification.

- **Interval/min:**

Enter the time interval (in minutes) which is the time duration between subsequent notifications.

Time Control:

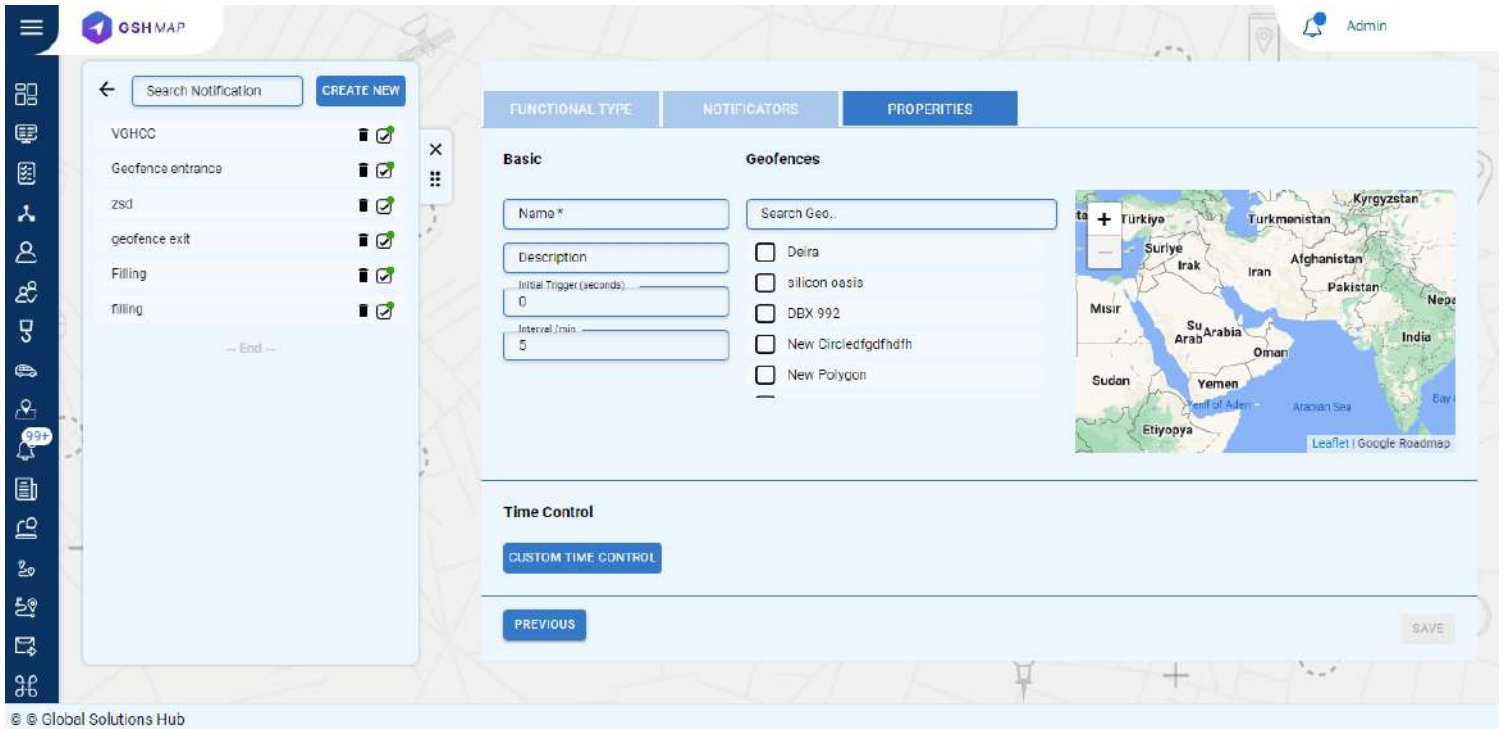
You can apply time control on the notification according to your requirement.

Weekly:

Select the days on which you want to receive notification.

Custom:

- Select the time span, dates and months at which you want to receive the notification.
- You can also select multiple time slots by clicking on the 'ADD ANOTHER SLOT' button.
- You can check the days on which you want to receive the notification.
- Check the month in which you want to receive the notification.



The screenshot displays the GSH MAP application interface. On the left, a sidebar contains various navigation icons. The main content area is divided into several sections:

- Search Notification:** A search bar with a "CREATE NEW" button.
- Notification List:** A list of notification types with checkboxes for assignment:
 - VGHC
 - Geofence entrance
 - zsd
 - geofence exit
 - Filling
 - filling
- Properties Panel:** A panel with tabs for "FUNCTIONAL TYPE", "NOTIFIERS", and "PROPERTIES". The "PROPERTIES" tab is selected, showing:
 - Basic:** Fields for Name, Description, Initial Trigger (seconds) (set to 0), and Interval (min) (set to 5).
 - Geofences:** A search field and checkboxes for "Deira", "silicon oasis", "DBX 992", "New Circle", and "New Polygon".
 - Time Control:** A "CUSTOM TIME CONTROL" button.
 - Navigation:** "PREVIOUS" and "SAVE" buttons.
- Map:** A map of the Middle East region is displayed on the right side of the Properties panel.

Assign Notifications

- To assign notifications to the units – Click on the unit and then Notifications tab.
- Click on the check boxes of the Notifications to assign this unit.
- The notifications with the right tick in the check boxes are those who already have some access to this unit.
- The notifications with the empty check boxes are those who doesn't have access to this unit.

Search Notification

- To find the required notification in the notifications list, use the search field above notifications list.
- Enter the required notification name in search field, the result will display.

Delete Notification

To delete a notification:

- Select the notification on the notifications list and click on Delete icon next to notification name in the notifications list.
- The notification will be deleted successfully and will not be displayed in the notifications list.

Update Notification

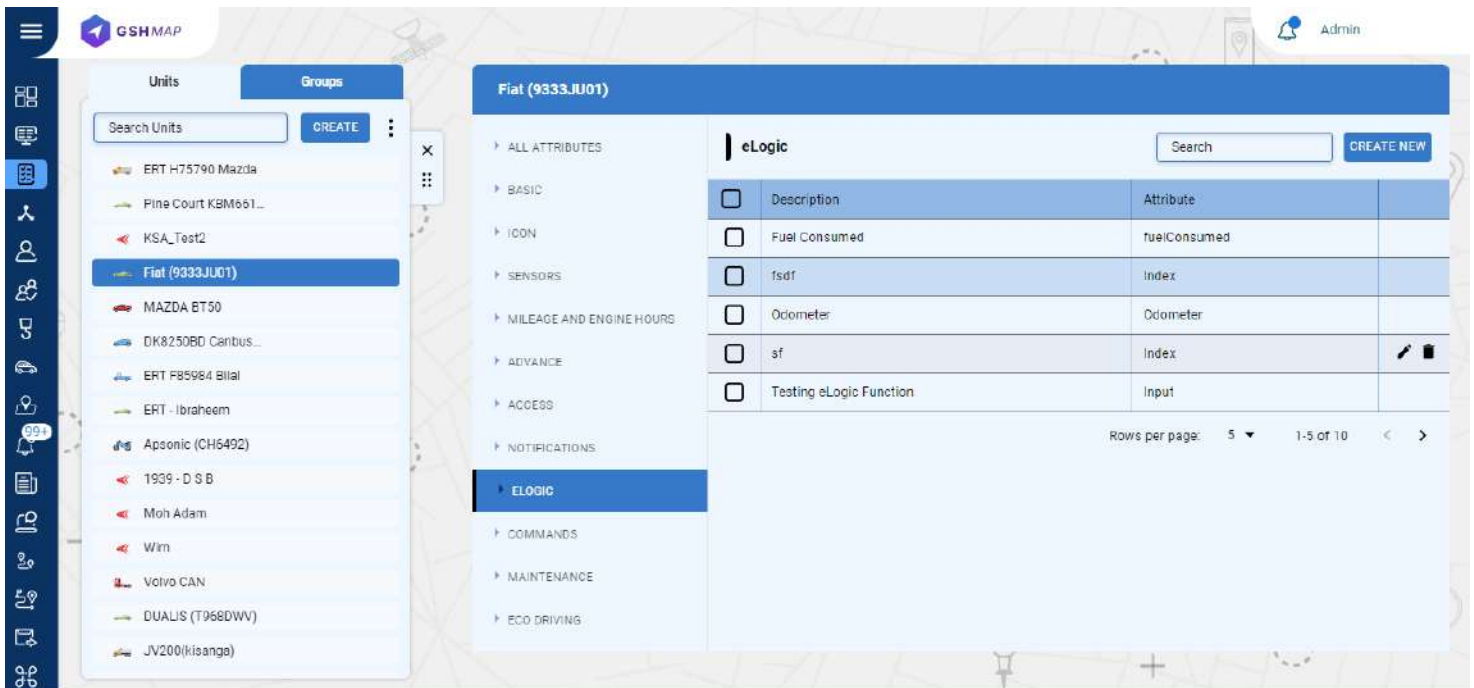
To update a notification:

- Select the notification on the notifications list and click on Edit icon next to notification name in the notifications list.
- Update the notification information that user wants to update and then click on update button. The notification information will be updated successfully.



ELOGIC

In the ELOGIC tab, users can create, edit, delete or view parameters and can assign ELOGIC to the units. In the GSHMAP, ELOGICS can be of any names. Some names are predefined in the device configuration. ELOGIC are the required sensor property. Sensors fetch the data on the basis of ELOGIC set during device configuration. ELOGIC can also be used to create sensors.

Users need to have access right to create, edit, assign and delete ELOGIC. Otherwise, user can only view existing ELOGICS.



The screenshot displays the GSHMAP interface. On the left, a sidebar menu shows various navigation options. The main content area is divided into two panels. The left panel, titled 'Units', lists several vehicle units, with 'Fiat (9333JU01)' selected. The right panel, titled 'Fiat (9333JU01)', shows a list of attributes. The 'ELOGIC' attribute is selected, displaying a table of eLogic configurations.

Description	Attribute	
Fuel Consumed	fuelConsumed	
tsdf	Index	
Odometer	Odometer	
sf	Index	 
Testing eLogic Function	Input	

At the bottom of the table, it shows 'Rows per page: 5' and '1-5 of 10'.

Create ELOGIC

To create a ELOGIC

- Click on the Create new button
- Enter description of the ELOGIC
- Enter attributes of the ELOGIC
- Enter the ELOGIC /input value
- Enter Type (String, Number, Boolean)
- Click on Add button

Assign ELOGIC

- To assign ELOGIC to the units – Click on the unit and then ELOGIC tab.
- Click on the check boxes of the ELOGICS to assign this unit.
- The ELOGIC with the right tick in the check boxes are those who already have some access to this unit.
- The ELOGICS with the empty check boxes are those who do not have access to this unit.

Search ELOGIC

- To find the required ELOGIC, use the search field above list. Enter the required ELOGIC's name in search field, the result will display.

Delete ELOGIC

To delete a ELOGIC:

- Select the ELOGIC in the list and click on Delete icon next ELOGIC's name.
- The ELOGIC will be deleted successfully and will not be displayed in the list.

Update ELOGIC

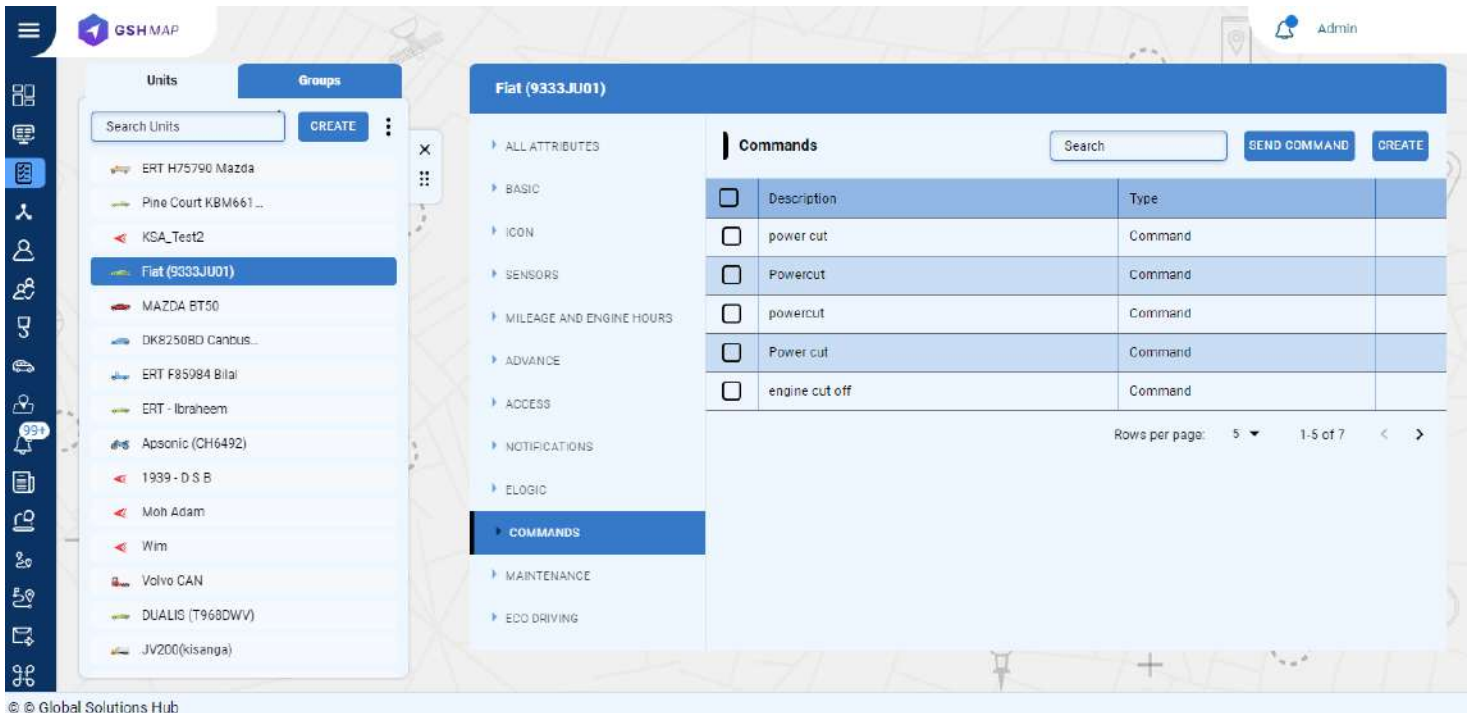
To update a parameter:

- Select the ELOGIC in the list and click on Edit icon next to ELOGIC's name in the list.
- Update the customized information that user wants to update
- Click on update button.
- The ELOGIC information will be updated successfully.

Commands

In the Commands tab of the Unit options, users can create, edit, delete and configure commands to be sent to the units.

To send a command to the unit, user need to have access right to create, edit, assign and delete commands. Otherwise, user can only view existing commands.



The screenshot displays the GSHMAP interface. On the left, a sidebar shows a list of units, with 'Flat (9333JU01)' selected. The main area is divided into two sections. The left section contains a menu of attributes: ALL ATTRIBUTES, BASIC, ICON, SENSORS, MILEAGE AND ENGINE HOURS, ADVANCE, ACCESS, NOTIFICATIONS, ELOGIC, **COMMANDS**, MAINTENANCE, and ECO DRIVING. The right section, titled 'Flat (9333JU01) Commands', features a search bar and buttons for 'SEND COMMAND' and 'CREATE'. Below this is a table with columns for 'Description' and 'Type'. The table lists several commands, all of which are currently unchecked.

<input type="checkbox"/>	Description	Type
<input type="checkbox"/>	power cut	Command
<input type="checkbox"/>	Powercut	Command
<input type="checkbox"/>	powercut	Command
<input type="checkbox"/>	Power cut	Command
<input type="checkbox"/>	engine cut off	Command

At the bottom of the table, it indicates 'Rows per page: 5' and '1-5 of 7'.

Create Command

To create a command:

- Click on the Create new button
- Enter description of command
- Select send SMS check box (optional)
- Select type of command from dropdown list
- Click on Add button

Assign Commands

- To assign commands to the units – Click on the unit and then Commands tab.
- Click on the check boxes of the Commands to assigned this unit.
- The commands with the right tick in the check boxes are those who already have some access to this unit.
- The commands with the empty check boxes are those who doesn't have access to this unit.

Search Command

- To find the required command in the commands list, use the search field above commands list.
- Enter the required command name in search field, the result will display.

Delete Command

To delete a command:

- Select the command on the commands list and click on Delete icon next to command name in the command list.
- The command will be deleted successfully and will not be displayed in the commands list.

Update Command

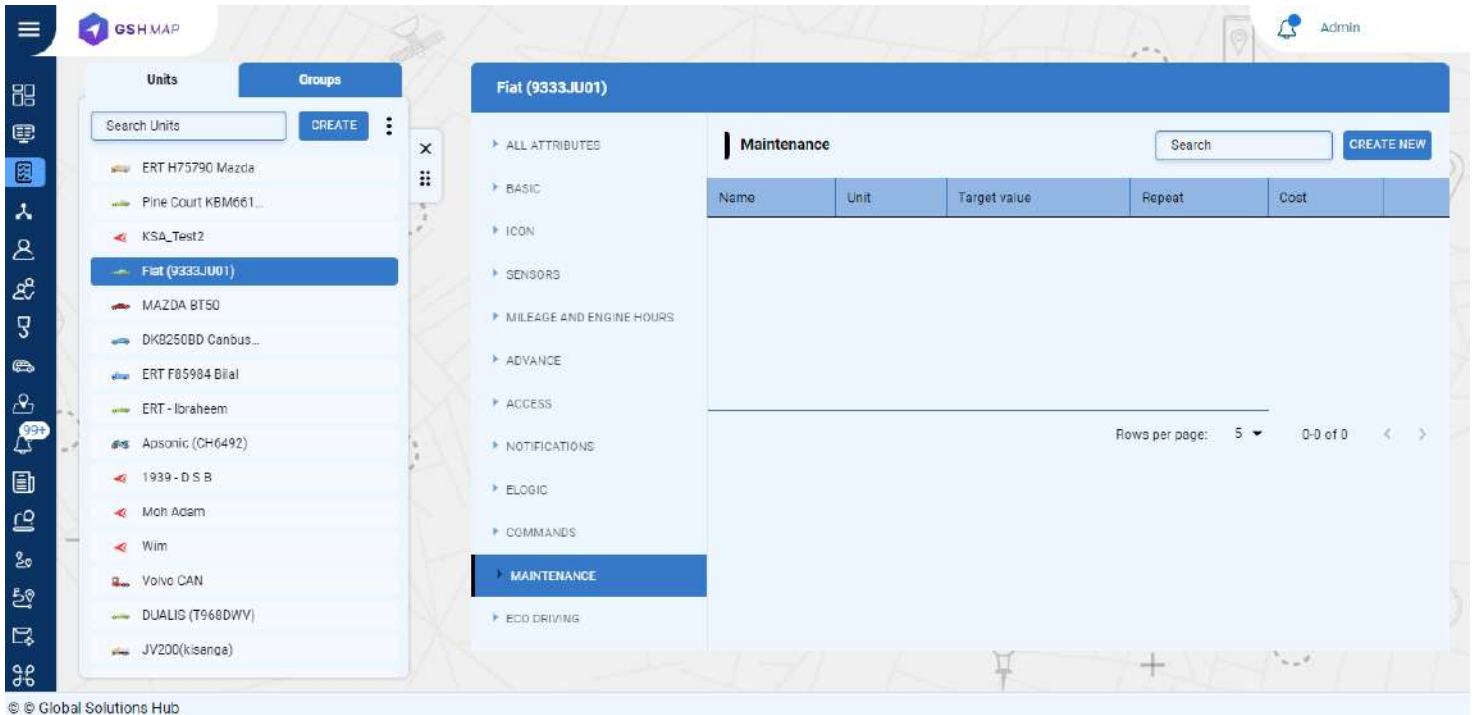
To update a command

- Select the command on the commands list and click on Edit icon next to command name in the commands list.
- Update the command information that user wants to update.
- Click on UPDATE button.
- The command information will be updated successfully.

Maintenance

In the Maintenance tab of the Unit options, users can create, edit, delete and configure maintenance and assign to the units.

The Maintenance list contains the list of the service works performed during the indicated period and registered by the user for the selected unit. To configure maintenance to the unit, user need to have access right to create, edit and delete maintenance. Otherwise, user can only view existing maintenance.



The screenshot displays the GSHMAP application interface. On the left, a sidebar contains navigation icons. The main area is divided into two panels. The left panel, titled 'Units', shows a list of units with 'Fiat (9333JU01)' selected. The right panel, titled 'Fiat (9333JU01)', has a 'Maintenance' tab active. This tab contains a table with the following columns: Name, Unit, Target value, Repeat, and Cost. The table is currently empty. Below the table, there is a pagination control showing 'Rows per page: 5' and '0-0 of 0'.

Create Maintenance

To Create Maintenance:

- Click on the Create new button
- Enter the name of a maintenance
- Select type of maintenance from dropdown list
- Enter Start and Period time
- Click on Add button

Assign Maintenance

- To assign maintenance to the units – Click on the unit and then Maintenance tab.
- Click on the check boxes of the Maintenance to assign this unit.
- The maintenances with the right tick in the check boxes are those who already have some access to this unit.
- The maintenances with the empty check boxes are those who doesn't have access to this unit.

Search Maintenance

- To find the required maintenance in the maintenance list, use the search field above maintenance list.
- Enter the required maintenance name in search field, the result will display.

Delete Maintenance

To delete a maintenance:

- Select the maintenance on the maintenance list and click on Delete icon next to maintenance name in the maintenance list.
- The maintenance will be deleted successfully.

Update Maintenance

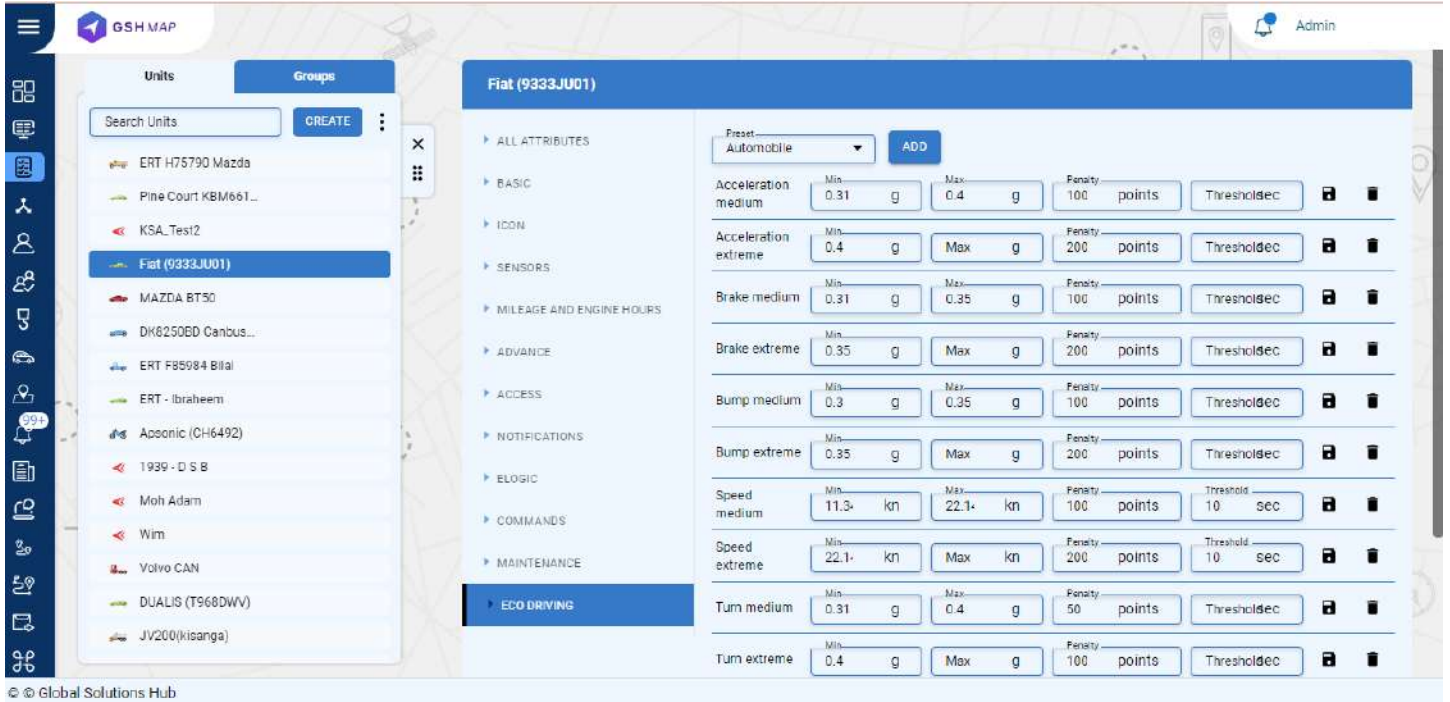
- Select the maintenance on the maintenance list and click on Edit icon next to maintenance name in the maintenance list.
- Update the maintenance information that user wants to update.
- Click on UPDATE button.

The maintenance information will be updated successfully.

Eco Driving

In the Eco Driving tab on the unit's options, users can add the eco-driving criteria. Set the templates: use a preset (Bus, truck, Automobile). Eco Driving is a form where user can set the parameters used for accountability of drivers during driving.

GSHMAP provides three templates, select one of the three available templates: Bus, truck, Automobile.



The screenshot displays the GSH MAP interface with a sidebar on the left containing a list of units. The main panel is titled "Fiat (9333JU01)" and shows a configuration table for Eco Driving parameters. The "Preset" is set to "Automobile". The table lists various parameters with their minimum and maximum values, penalty points, and a threshold in seconds. Each parameter has an "ADD" button and a delete icon.

Parameter	Min	Max	Penalty	Threshold
Acceleration medium	0.31 g	0.4 g	100 points	ThresholdSec
Acceleration extreme	0.4 g	Max g	200 points	ThresholdSec
Brake medium	0.31 g	0.35 g	100 points	ThresholdSec
Brake extreme	0.35 g	Max g	200 points	ThresholdSec
Bump medium	0.3 g	0.35 g	100 points	ThresholdSec
Bump extreme	0.35 g	Max g	200 points	ThresholdSec
Speed medium	11.3 kn	22.1 kn	100 points	10 sec
Speed extreme	22.1 kn	Max kn	200 points	10 sec
Turn medium	0.31 g	0.4 g	50 points	ThresholdSec
Turn extreme	0.4 g	Max g	100 points	ThresholdSec

Add Eco Driving

- Select the values against all the parameters like acceleration, brake, bump, speed etc. according to your convenience.
- Click on the ADD button to add new Eco Driving criteria.

Update Eco Driving

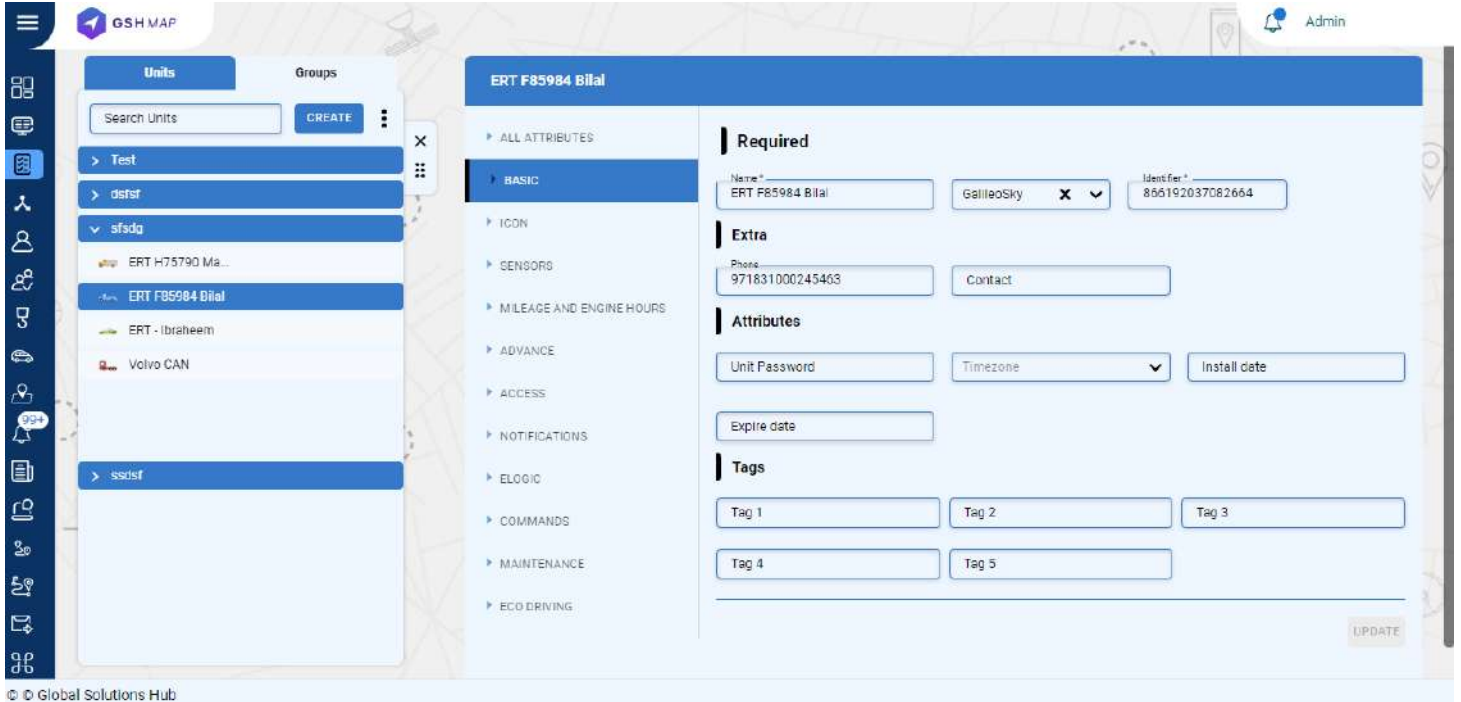
- Select the values against all the parameters like acceleration, brake, bump, speed etc. according to your convenience.
- Click on UPDATE button on the right side of the values to save changes.

Delete Eco Driving

- Click on the Delete button next to the update option to delete an Eco driving parameter.

Groups

Groups are used in the GSHMAP system to add a multiple number of units. A group is a series of monitoring units that are combined together for monitoring and management purposes. Created units are combined to form a group on the basis of some criteria.



Create group

- Select the groups list and then click on create new button.
- Enter the name of a new group.
- Enter the Attributes of a group.
- Click on Create new button.
- The group will be created successfully and displayed in the groups list.

Add units in the Group

- Click on the attachment icon on the Group name.
- Check the units that you want to add in the Group.

Search group

- To find the required group in the groups list, use the search field above groups list.
- Enter the required group name in search field, the result will display.

Update group

To update a group:

- Click on the group in the groups list.
- Select the Basic tab.
- Update the group information that user wants to edit and then click on update button.
- The group information will be updated successfully.

Delete group

To delete a group:

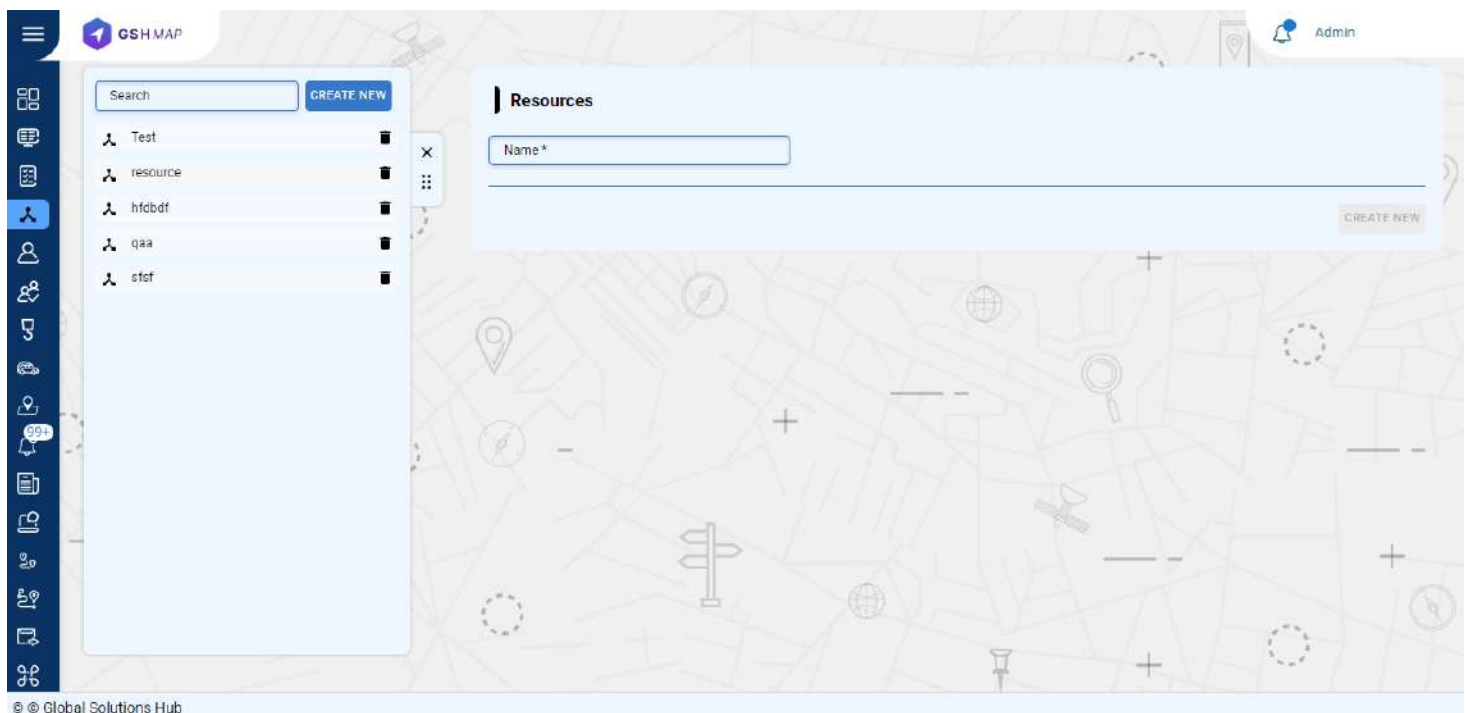
- Select the group and click on Delete icon next to group's name in the list.
- The group will be deleted successfully and will not be displayed in the units list.

RESOURCES

GSHMAP offer resources module to add multiple entities in one giant group. From units and vehicles to staff and geofences, everything can be added in the resources. A resource can be shared with a user and all the entities inside it will be visible to that user.

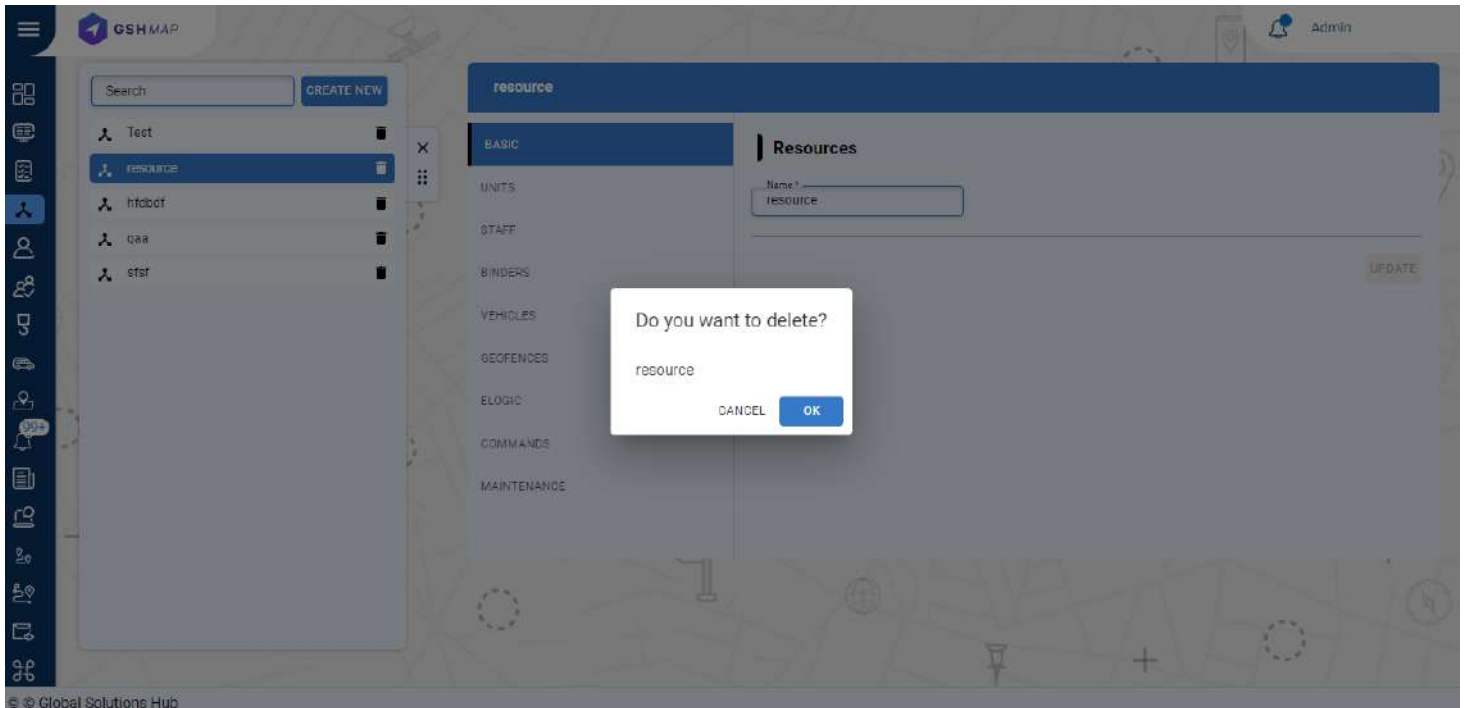
Create New:

- Click on the CREATE NEW button to add a new resource.
- Add the name and after that click on the CREATE NEW button to add the new resource.
- Click on the 'CREATE NEW' button.



Delete:

- Click on the trash button next to the resource name to delete it.
- Click on OK button to completion deletion.



Adding Entities:

- Click on the resource.
- Click on Units, Staff, Trailer, Vehicle, Geofences, eLogic, Commands, Maintenance to add them in a resource.

USERS

GSHMAP provides the user's module in which users can create, edit, view, or delete other users. It also allows you to assign units, groups, drivers to different users. You need to have access right to create, edit, view, and delete users. Otherwise, users can only view existing users. User can also generate the public login link to login into the GSHMAP.

Create User

- Click on the Create new button from the Users tab module
- Enter the following required information of the user:

Name

- Set the specific name of the user

Email

- Set the email of the user

Role

- Select the role of the user from the drop down list

Preferences:

Phone

- Set the phone number of the user. The phone number should be in the international format.
- Select the map type for the user.

Coordinates Format

- Set the coordinates format from the dropdown

Latitude/ longitude

- Set the latitude, longitude to determine the location of the user.

Zoom

- Select the zooming limit of the map.

Permissions:

The expiration date of the user is shown here.

Expiration:

Unit Limit:

- The unit limit of the user is shown here.

User Limit:

- The unit limit of the user is shown here.

Attributes

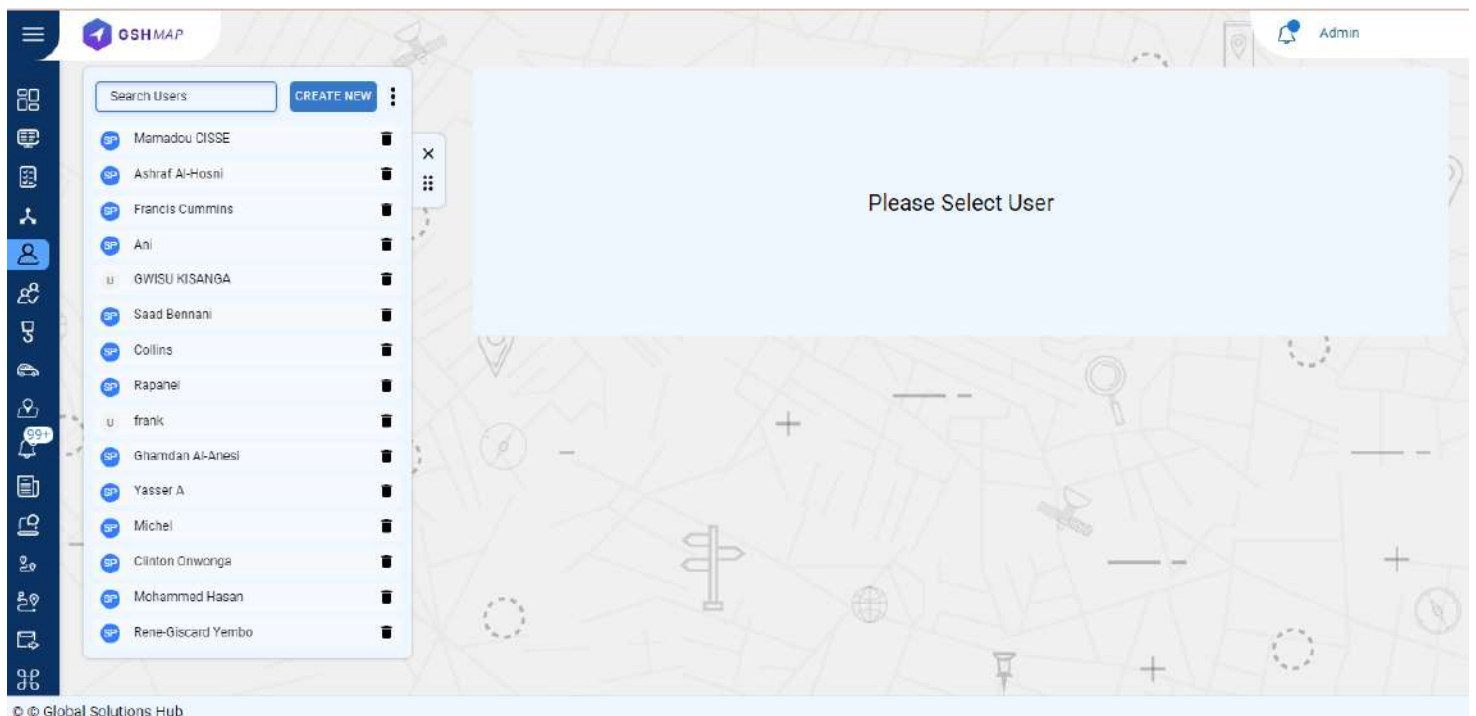
- Time Zone
- Add the time zone of the user
- Measurement Standard
- Add the measurement standard for the user
- Currency
- Select the currency for the user

View Model

- Check this checkbox to show model of the device for this user.

View IMEI:

- Check this checkbox to show IMEI of the device for this user.



Search and View User

- To find the required user in the user's list, use the search field above the staff list.
- Enter the required user name in the search field, the result will display.
- Click on the name of the user and following information will show up:

BASIC

- It contains the basic information of a user like name, email, phone etc.

CHANGE PASSWORD

- You can change password of a user by filling the password and confirm password fields.

UNITS

- It includes the different units that are either directly created by the user or created by a child of the user. By checking the checkbox, the unit can be assigned to the user.

RESOURCES

- It includes all the Resources that are either directly created by the user or created by a child of the user. By checking the checkbox, the resources can be assigned to the user.

STAFF

- It includes all the staff that are either directly created by the user or created by a child of the user. By checking the checkbox, the staff can be assigned to the user.

BINDERS:

- It includes the Binders that are either directly created by the user or created by a child of the user. By checking on the checkbox, the binders can be assigned to the user.

TEMPLATES:

- It includes the reporting templates that are either directly created by the user or created by a child of the user. By checking on the checkbox, the templates can be assigned to the user.

VEHICLE:

- It includes the vehicles that are either directly created by the user or created by a child of the user. By checking on the checkbox, the vehicles can be assigned to the user.

ACCESS

- It includes the different user accounts that are either directly created by the user or created by a child of the user. By checking on the checkbox, access of different users can be assigned to the user.

GEOFENCES

- It includes the geofences that are either directly created by the user or created by a child of the user. By checking the checkbox, the geofences can be assigned to the user.

ELOGIC

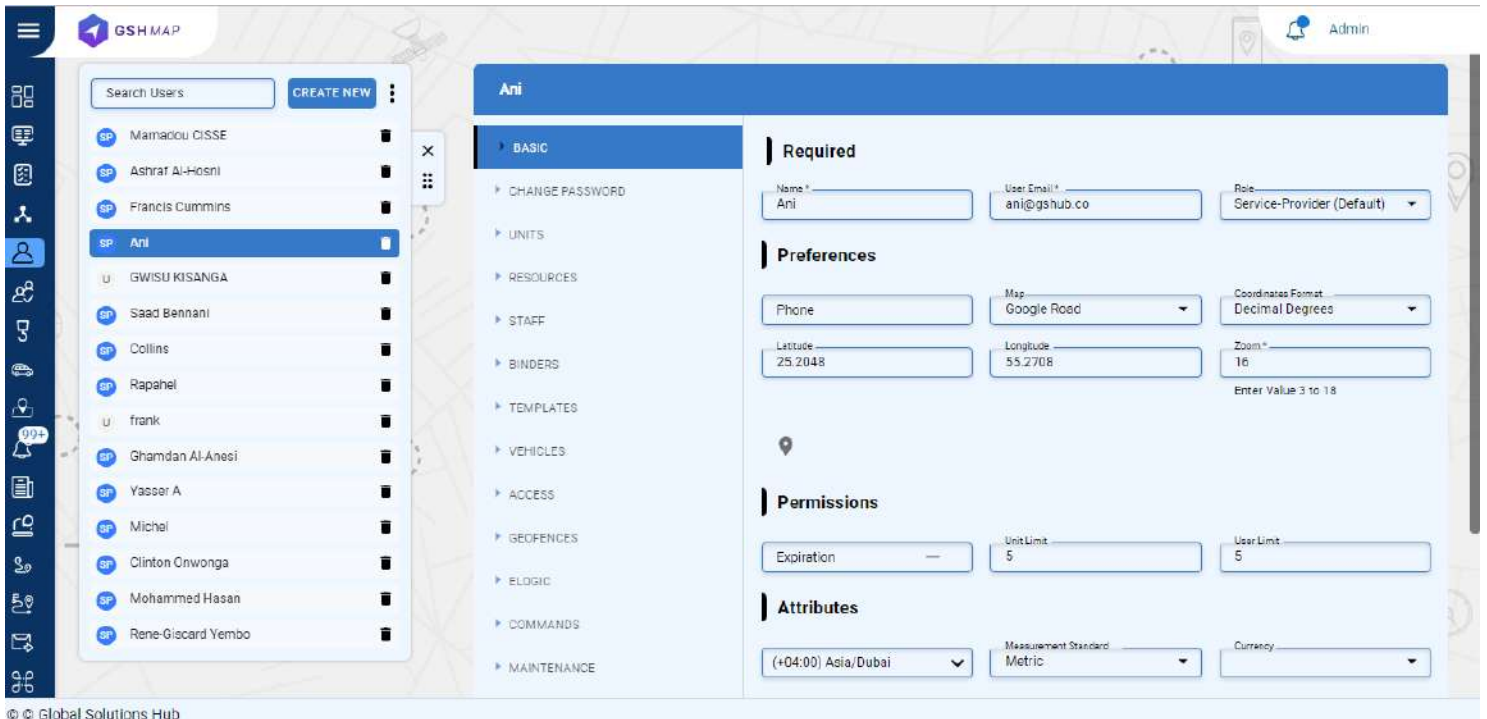
- It includes the different ELOGICs that are either directly created by the user or created by a child of the user. By checking the checkbox, the eLogic can be assigned to the user.
- Click on the CREATE NEW button and add description, attribute, expression and return type to create a new eLogic.

COMMANDS

- It includes different commands that are either directly created by the user or created by a child of the user. By checking the checkbox, the commands can be assigned to the user.
- Click on the CREATE NEW button and add description and data attribute to create a new command.

MAINTENANCE

- It includes different types of maintenance that are either directly created by the user or created by a child of the user. By checking the checkbox, the Maintenance can be assigned to the user.
- Click on the CREATE NEW button and add name, maintenance parameter, starting value and period to create a new maintenance.



The screenshot displays the GSH MAP user management interface. On the left, a sidebar shows a list of users with a search bar and a 'CREATE NEW' button. The user 'Ani' is selected. The main content area shows the user's profile for 'Ani', including a navigation menu on the left with options like 'BASIC', 'CHANGE PASSWORD', 'UNITS', 'RESOURCES', 'STAFF', 'BINDERS', 'TEMPLATES', 'VEHICLES', 'ACCESS', 'GEOFENCES', 'ELOGIC', 'COMMANDS', and 'MAINTENANCE'. The profile details are organized into sections: 'Required' (Name: Ani, User Email: ani@gshub.co, Role: Service-Provider (Default)), 'Preferences' (Phone, Map: Google Road, Coordinates Format: Decimal Degrees, Latitude: 25.2048, Longitude: 55.2708, Zoom: 16, Enter Value: 3 10 18), 'Permissions' (Expiration: —, Unit Limit: 5, User Limit: 5), and 'Attributes' ((+04:00) Asia/Dubai, Measurement Standard: Metric, Currency: —).

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Delete User

- Select the user on the users list and click on Delete icon next to the username.

The user will be deleted successfully and will not be displayed in the users list .

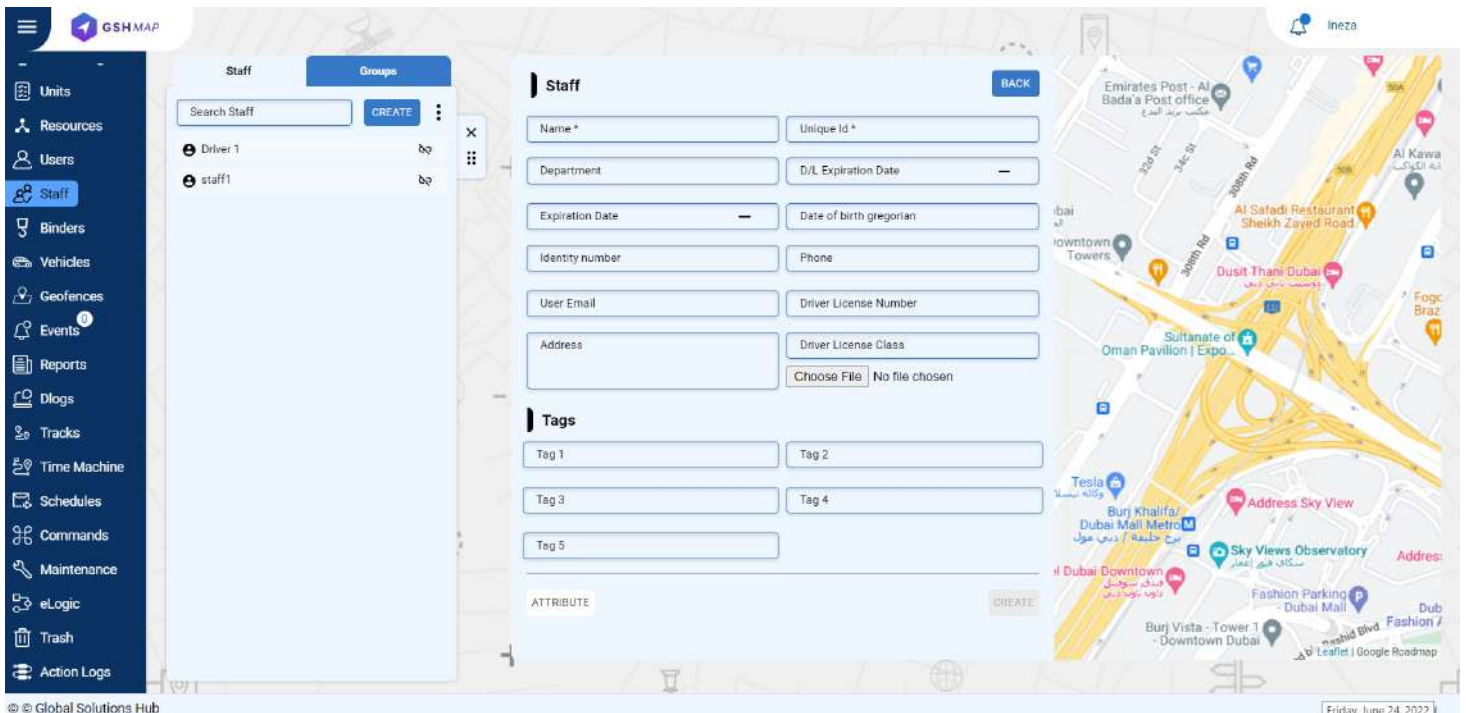
Update User:

- Select the user on the users list.
- Make changes in the information available in Basic tab to update the user information.
- Update the user required information.
- Click on UPDATE button.

The user information will be updated successfully.

STAFF

GSHMAP provides the Staff module functionality in which users can create, edit, view, or delete staff and manage the list of staff (drivers). To work with Staff, select the Staff module on the left from the main menu. Users need to have access right to create, edit, view, and delete staff. Otherwise, users can only view existing staff.



The screenshot displays the GSHMAP Staff management interface. On the left, a dark blue sidebar menu lists various modules, with 'Staff' highlighted. The main content area is split into three panels. The left panel shows a 'Staff' list with a search bar, a 'CREATE' button, and a list of staff members (Driver 1, staff1) with delete icons. The middle panel is a form for creating or editing a staff member, with fields for Name, Unique Id, Department, D/L Expiration Date, Expiration Date, Date of birth gregorian, Identity number, Phone, User Email, Driver License Number, Address, Driver License Class, and a file upload button. Below the form are five 'Tags' input fields and an 'ATTRIBUTE' section. The right panel shows a map of Dubai with various landmarks and streets.

Create Staff

- Click on the Create new button from the Staff module.
- Enter the required information of the driver:

Name

Set the specific name of the driver.

Unique ID

Set the unique ID for the driver required to identify it by the system.

Identity Number:

Add the identity card number of the driver.

Date of Birth Gregorian

Enter the date of the birth of the driver.

Department

Set the department of the driver.

D/L Expiration Time

Set the D/L Expiration Time.

Phone

Set the phone number of the driver. The phone number should be in the international format.

Email

Set the email ID of the driver.

Driver License Number

Set the driver license number.

Driver License Class

Set the driver license class.

Address

Set the driver address.

Choose file

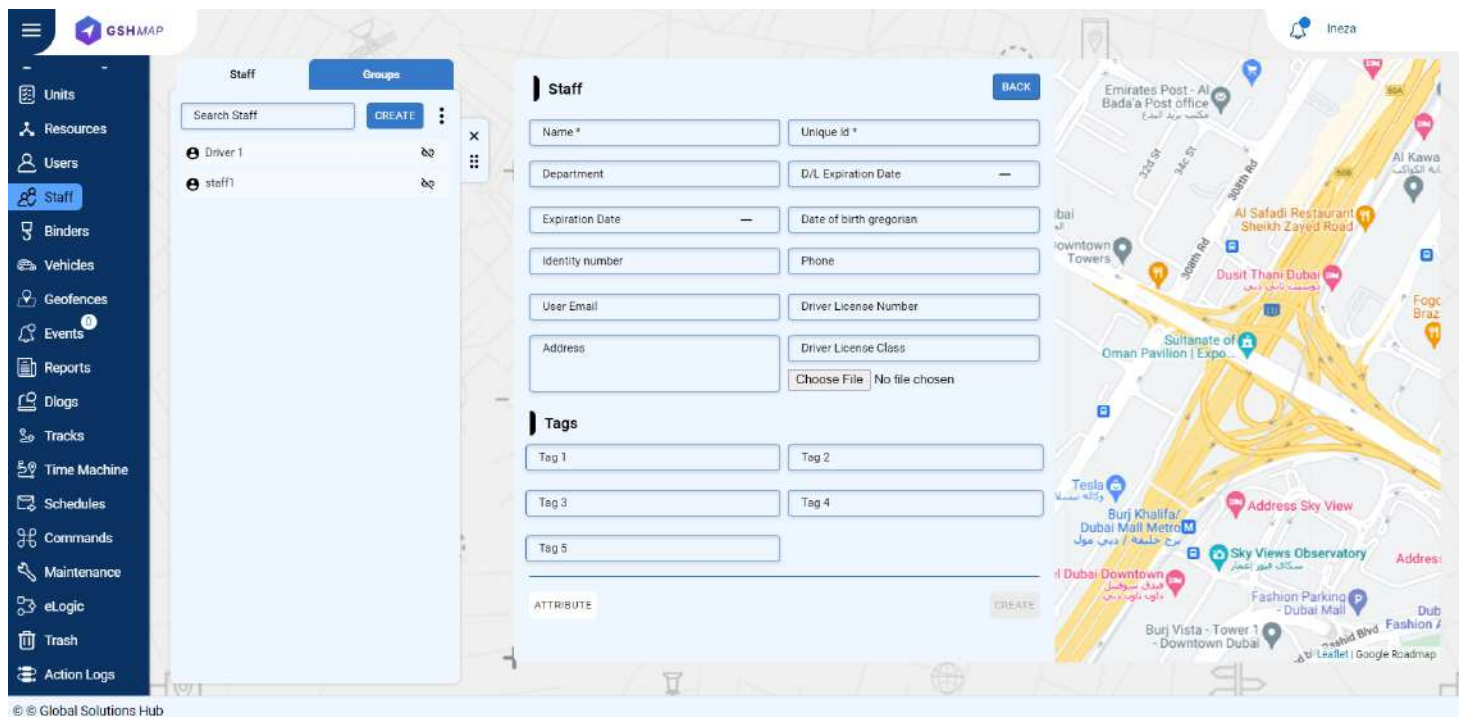
Set the driver profile image by clicking on CHOOSE FILE option.

Tags

Add different types of tags for staff.

Attributes of the drivers

- To set attributes of the driver – Click on the attribute button.
- Search the attributes and click Add button to add attributes.
- After adding all the information, click on CREATE button.



Search Staff

- To find the required driver in the staff list, use the search field above the staff list.
- Enter the required driver name in the search field, the result will display.

View Staff

Click on the name of the Staff to view its complete information including Name, ID, Driver License Number, Driver License Class, Department etc.

Delete Staff

- Select the driver on the staff list and click on Delete icon next to the driver name.
- The driver will be deleted successfully and will not be displayed on the staff list.

Update Staff

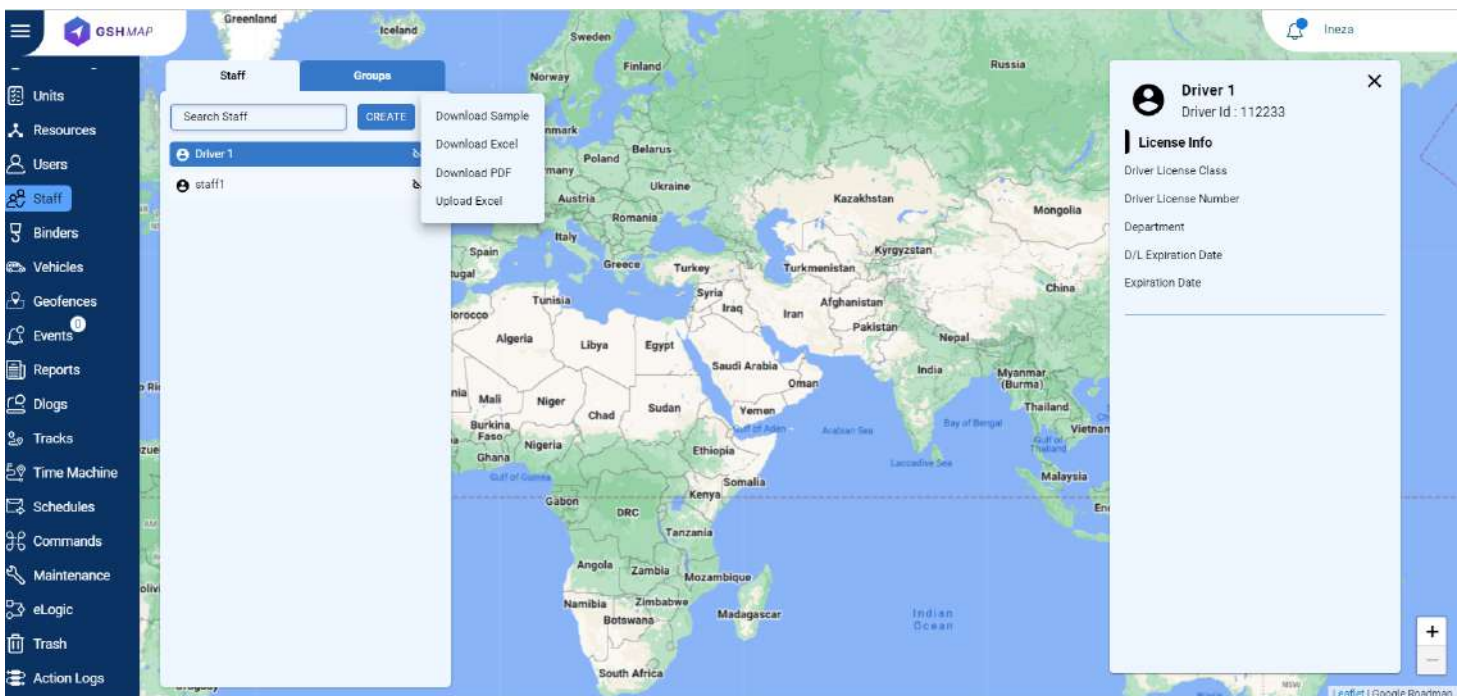
- Select the driver on the staff list and click on Edit icon next to the driver name.
 - Update the driver information that user wants to update and then click on update button.
- The driver information will be updated successfully.

Download Staff

Click on the three vertical dots to download any staff's information in Excel and PDF.

Upload Staff

Click on the three vertical dots and select 'Upload Excel' option to import any staff information.



BINDERS

Create Binder

- Click on the Create new button on the top of Binders module.
- Select Binder type from the menu.
- Enter the required information related to the Binder.

Binder Name

Enter the Binder name in this option.

Binder ID

Enter the unique Binder ID number in this option.

Description

Enter the description of the Binder in this option.

Choose File

You can add an image related to the Binder by clicking on this option.

Expire Date

Enter the expiry date of the Binder here.

Tags

You can add custom field for the Binder using tags.

Search Binder

- To find the required Binder, use the search field.
- Enter the required Binder name in the search field, the result will display.

View Binder

Click on the name of the Binder to view its complete information.

Delete Binder

- Select the Binder from the list and click on Delete icon next to its name.
- The Binder will be deleted successfully and will not be displayed on the Binder list anymore.

Update Binder

- Select the Binder from the list and click on Edit icon next to its name.
- Update the Binder information that you want to update and then click on the update button.
- The Binder information will be updated successfully.

Download Binder

Click on the three vertical dots to download any Binder's information in Excel and PDF.

Upload Binder

Click on the three vertical dots and select 'Upload Excel' option to import any Binder information.

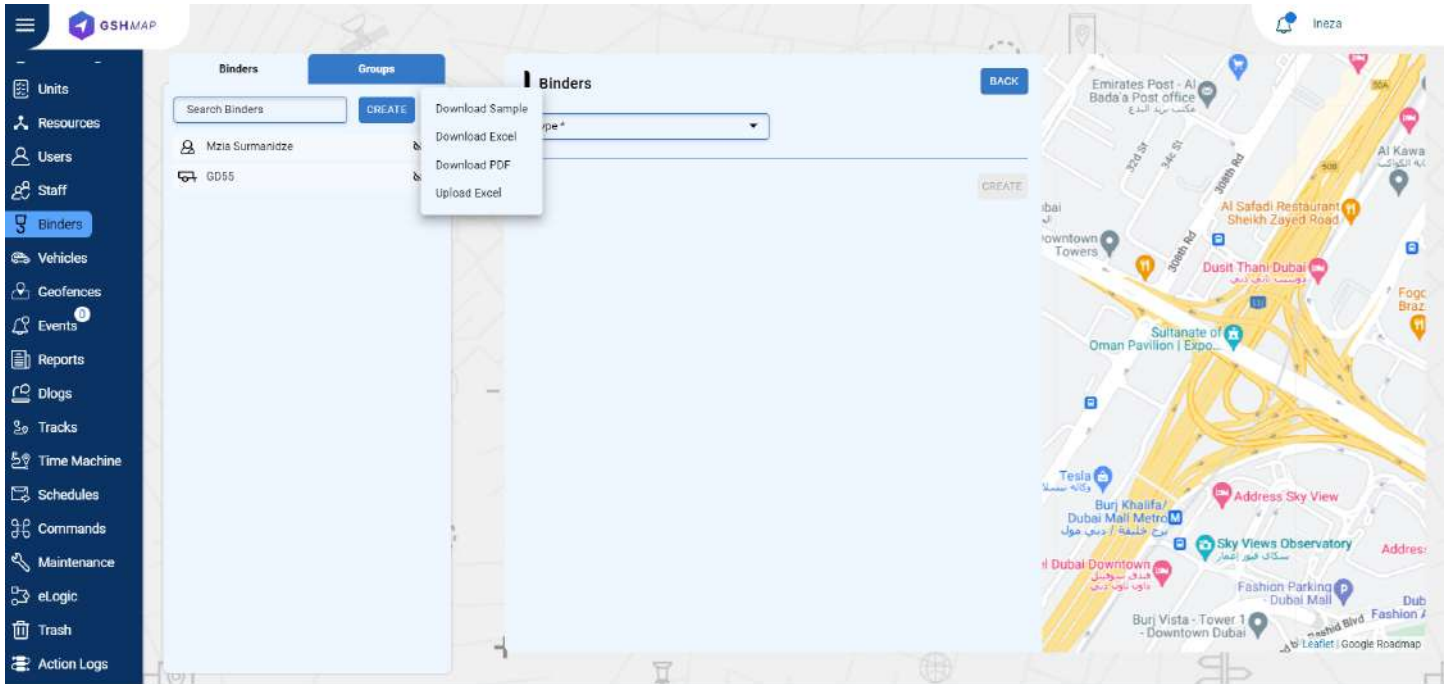
Create group

To create group:

- Select the groups list and then click on create new button.
- Enter the name of a new group.
- Enter the description of a group.
- Click on Create new button.
- The group will be created successfully and displayed in the groups list.

Add Binders in the Group

- Click on the attachment icon on the Group name.
- Check the binders that you want to add in the Group.



VEHICLES

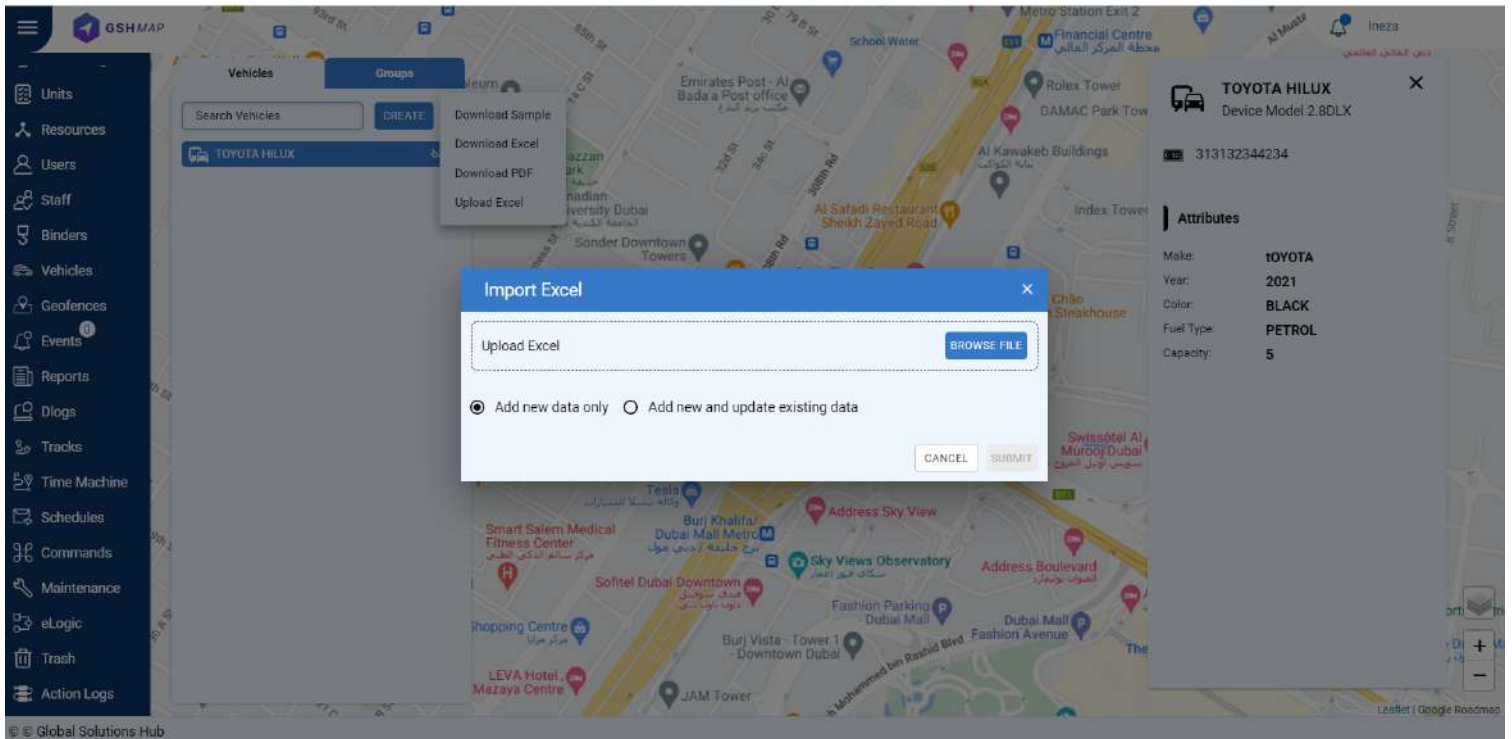
GSHMAP provides the Vehicle module functionality in which users can create, edit, view, or delete vehicles. To work with Vehicle, select the Vehicle module on the left from the main menu. Users need to have access right to create, edit, assign, and delete Vehicles. Otherwise, the user can only view the existing Vehicle.

Create Vehicle

- Click on the Create new button from the Vehicle module.
- Enter the required information of the vehicle like Label, Model, Color, Garage, Tags etc.
- Click on CREATE button.

Upload Vehicle Data:

A user can upload vehicles data by clicking on the 'Upload Excel' button next to search option.



Create group

To create a group:

- Select the groups list and then click on create new button.
- Enter the name of a new group.
- Enter the description of a group.
- Click on Create new button.
- The group will be created successfully and displayed in the groups list.

Add vehicles in the Group

- Click on the attachment icon on the Group name.
- Check the vehicles that you want to add in the Group.

Search Vehicle

- To find the required vehicle in the vehicles list, use the search field above the vehicles list.
- Enter the required vehicle name in the search field, the result will display.

Delete Vehicle

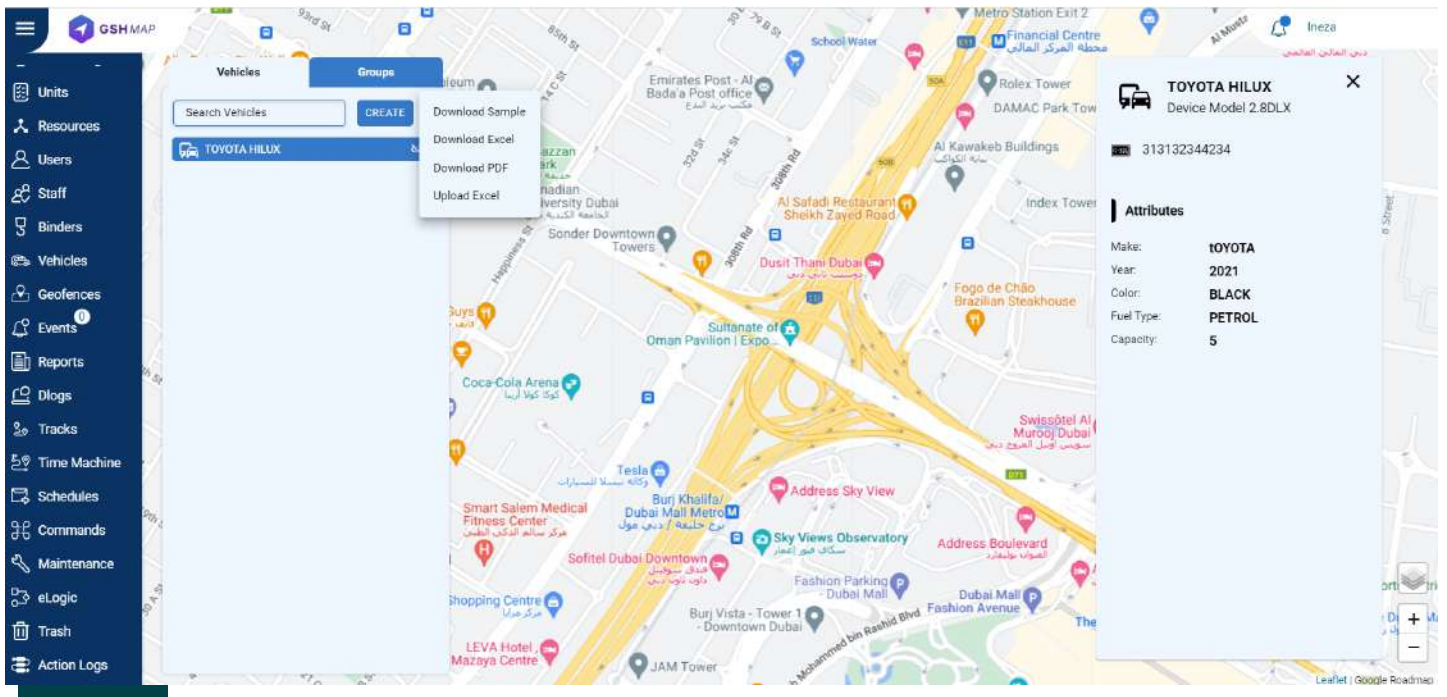
- Hover over the vehicle on the vehicles list and click on Delete icon next to vehicle name.
- The vehicle will be deleted successfully and will not be displayed in the vehicles list.

Update Vehicle

- Hover over the vehicle' name on the list and click on Edit icon next to Delete option.
- Update the vehicle information that user wants to update.
- Click on UPDATE button.
- The vehicle information will be updated successfully.

Download Vehicle Data:

A user can download vehicles data by clicking on the 'Download Excel' or 'Download PDF' button next to search option.

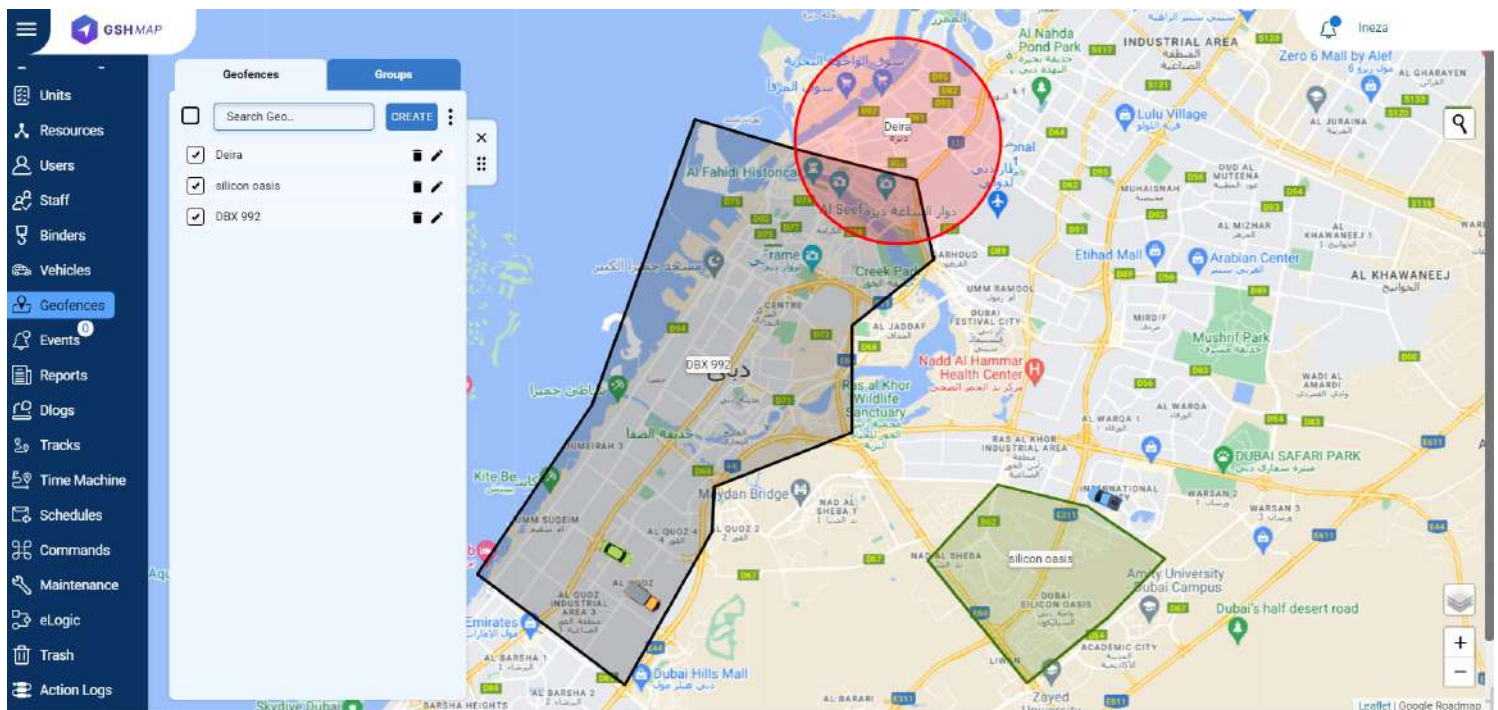


The screenshot displays the GSHMAP application interface. On the left is a dark blue sidebar with navigation icons for Units, Resources, Users, Staff, Binders, Vehicles, Geofences, Events, Reports, Dlogs, Tracks, Time Machine, Schedules, Commands, Maintenance, eLogic, Trash, and Action Logs. The main area shows a map of Dubai with a search bar containing 'TOYOTA HILUX'. A dropdown menu is open over the search bar, listing options: Download Sample, Download Excel, Download PDF, and Upload Excel. On the right, a detailed information panel for a 'TOYOTA HILUX' is shown, including the device model '2.8DLX', license plate '313132344234', and attributes: Make: TOYOTA, Year: 2021, Color: BLACK, Fuel Type: PETROL, Capacity: 5.

GEOFENCES

In the geofence module, users can create, edit, view or delete geofences. A geofence can have a shape of a circle, a polygon (2-dimensional shape formed with straight lines), or a polyline (one or more paths, a path is a series of connected segments). Geofences can be used in reports, notifications, etc.

Geofence is an area on the map that is important for used route planning track monitoring purpose. User can choose a name, description and color for a geofence to differentiate them. User need to have access right to create, edit, view and delete geofences. Otherwise, user can only view existing geofences.

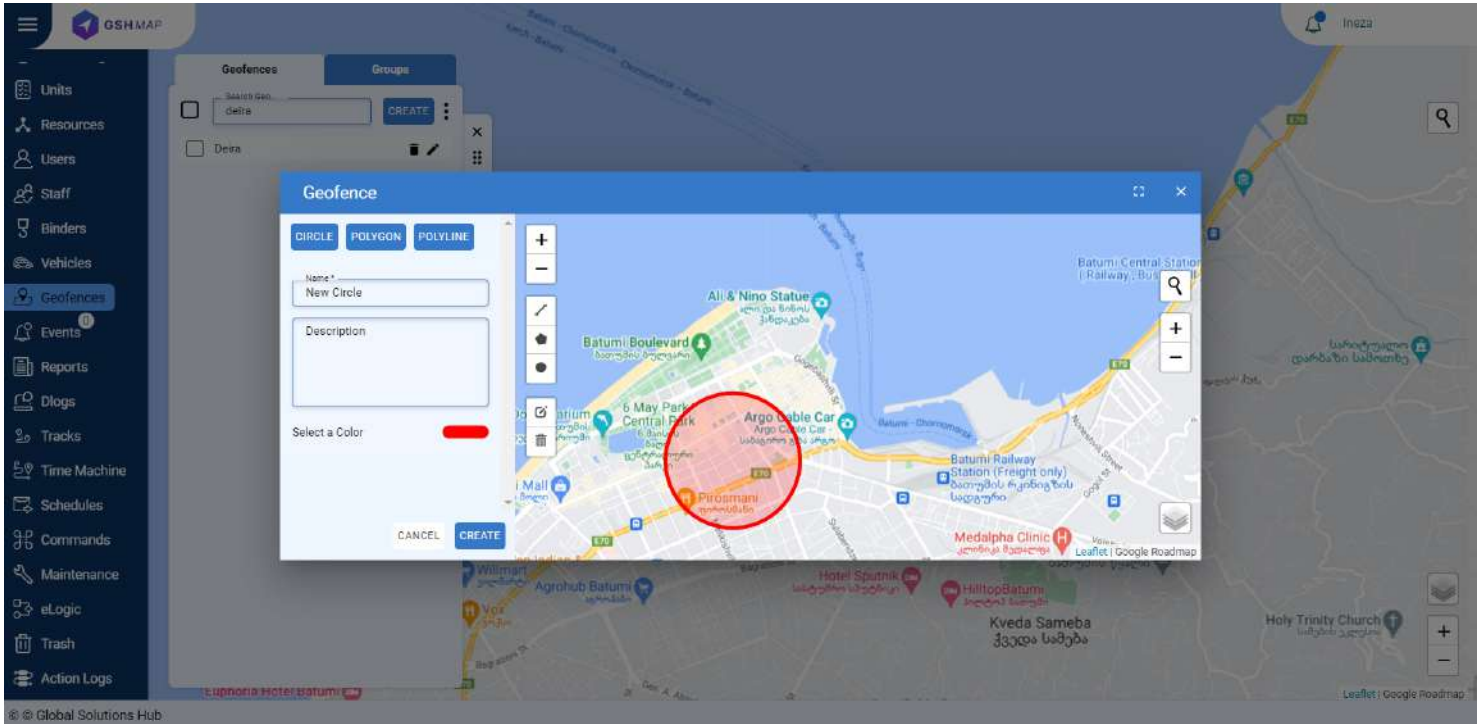


Creating Geofence

To create a geofence

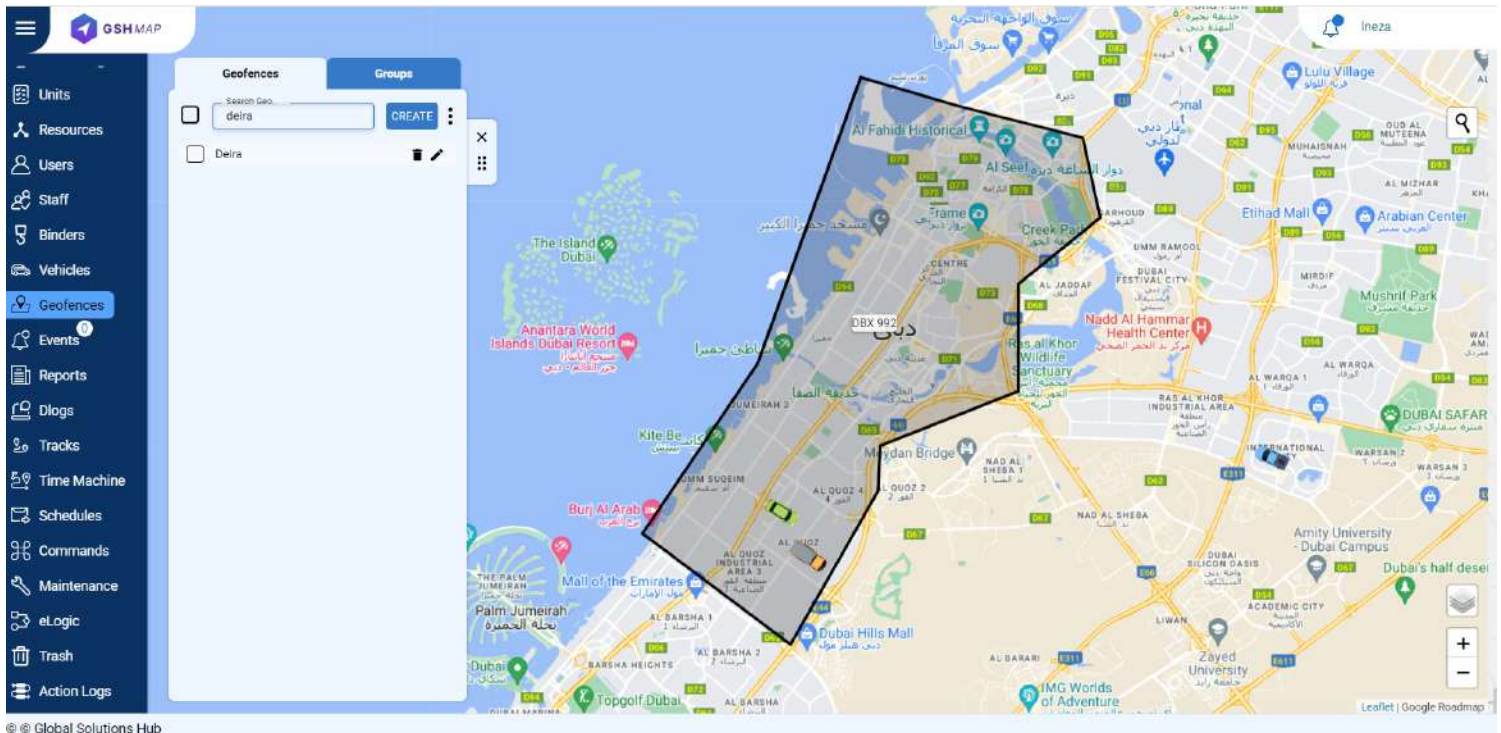
- Select the Geofences module on the left from the main menu.
- Click on the CREATE NEW button.
- Choose one of these shapes circle, polygon, polyline to draw them on the map.
- Add name and description of the geofence.
- Select the color of the geofence.
- Click on CREATE button to add a new geofence or click CANCEL to dismiss it.

The geofence will be created successfully and display in the geofences list.



Search Geofences

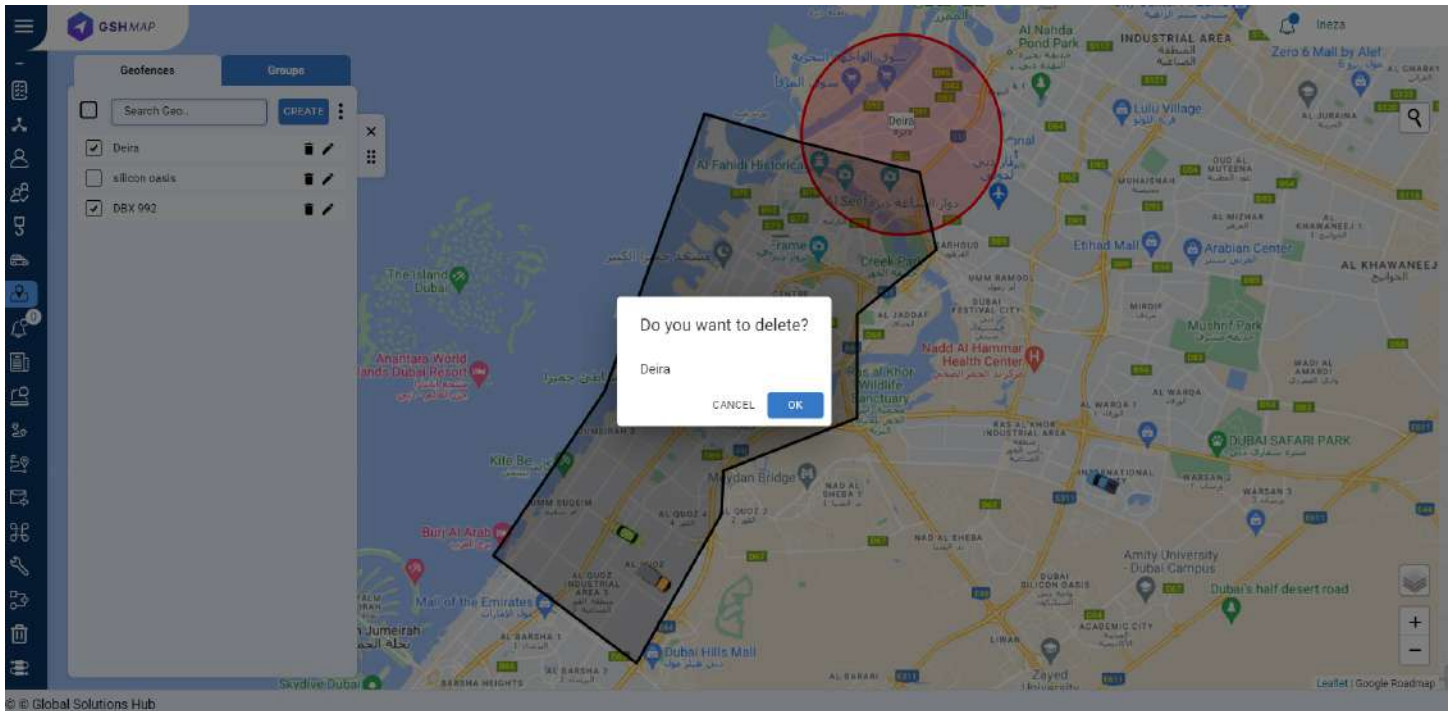
- To find the required geofence in the list, use the search field above geofences list.
- Enter the required geofence name in search field, the result will display.



Delete Geofence

To delete geofence

- Select the geofence on the geofences list and click on Delete icon right next to its name. The geofence will be deleted successfully and will not be displayed in the geofences list.

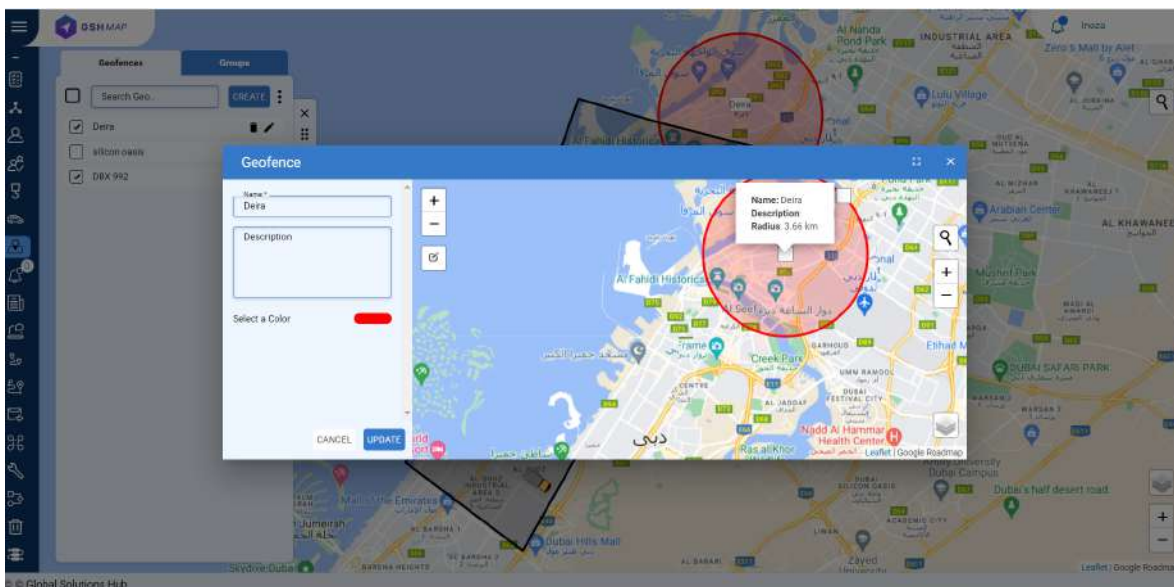


Update Geofence

To update geofence

- Select the geofence from the list and click on the Edit icon next to its name.
- Update the geofence information according to your requirement and then click on UPDATE button.

The geofence information will be updated successfully.



Create group

To create group

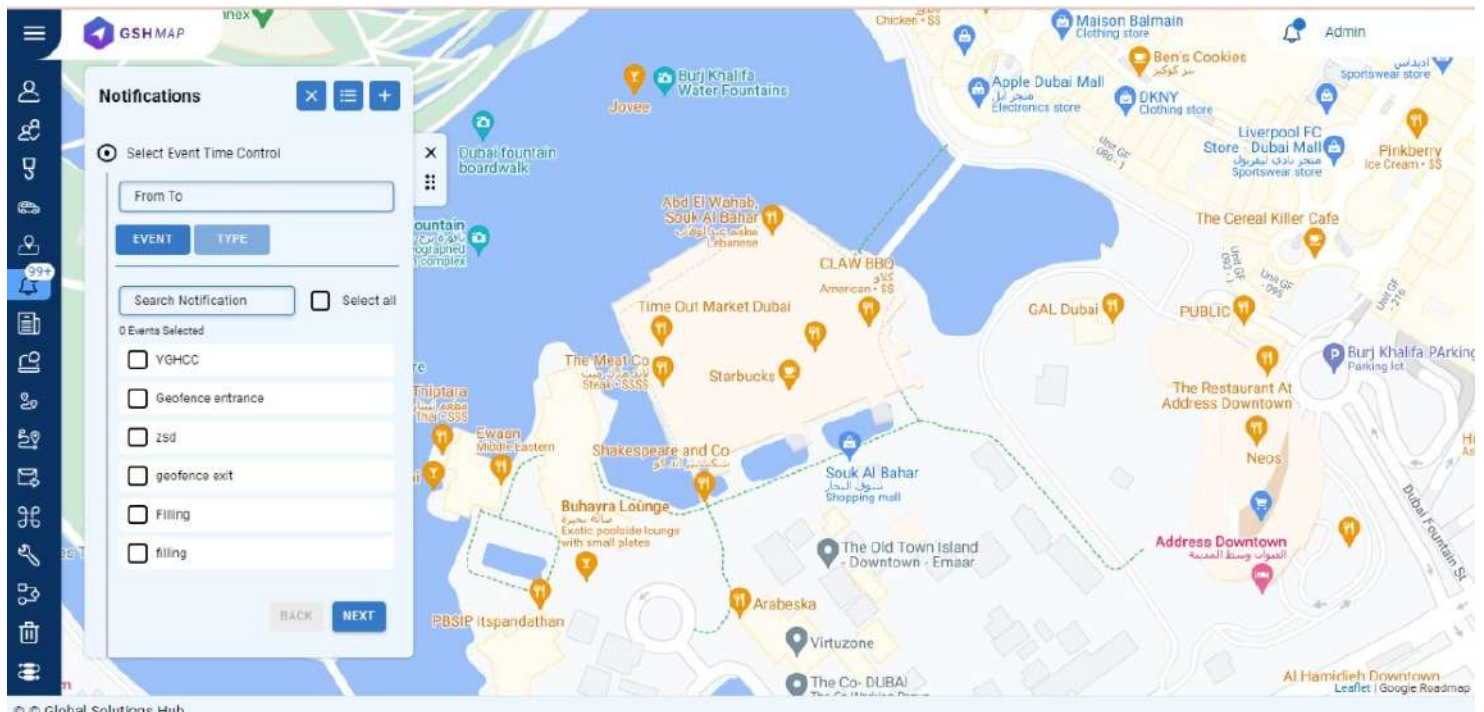
- Select the groups list and then click on create new button.
- Enter the name of a new group.
- Enter the description of a group.
- Click on Create new button.
- The group will be created successfully and displayed in the groups list.

Add Geofences in the Group

- Click on the attachment icon on the Group name.
- Check the geofences that you want to add in the Group.

EVENTS

- Events module allows user to manage different notification for units. In the GSHMAP, users can be notified about any unit's activity or change. It can be sensors values, change of location, speeding, and others. A notification can be displayed online in a popup window on the system. In this module, users can view the status of the notification of the units for any picked date. Notifications can be set for individual units or groups.



Create New

To generate a new event

- Click the MANAGE option in the right next to notification filter.
- Click on the CREATE NEW button.

You can create notifications for following events:

Movement

- You can set the notification for individual units or groups.
- You can select the movement notification of various events like geofence entrance, exit, unit movement, unit stop, towing, idling etc.

1. Geofence Entrance/Exit:

- **Search Geofence:** Search the geofence on which you want to apply the event by entering its name in the search field.
- Check the checkbox to select the geofence.
- **Search Units:** Search the unit on which you want to apply the event by entering its name in the search field.
- Check the checkbox to select the unit.

2. Speed Limit Exceeded:

- **Tolerance:** Enter the speed value as a cushion to extend the max. limit.
- **Min. Limit:** Enter the min. speed value after which the notification will be triggered.
- **Max. Limit:** Enter the max. speed value till which the notification will be triggered.
- Check the checkbox to select the unit.

3. Unit Stopped:

- **Threshold:** Enter the threshold time value after which the unit will be considered stop.
- **Use Ignition:** Check this checkbox to fetch the data from ignition.
- Check the checkbox to select the unit.

4. Unit Moving:

- Select this notification type to get the alerts whenever unit starts moving.
- Check the checkbox to select the unit.

5. Towing:

- Select this notification type to get the alerts whenever the unit starts towing.
- Check the checkbox to select the unit.

6. Idling:

- Select this notification type to get the alerts whenever the unit starts idling.
- Select the threshold time value after which the idling
- Check the checkbox to select the unit.

7. Parking:

Maintenance Reminder:

- Search the maintenance type for which you want to set notification.
- Set the percentage at which you want notification alert.

Digital:

- Digital notifications can be set for various events like ignition, panic button, external power etc.
- Select the state (ON, OFF or both) for which you want to receive notification from the 'State' drop down list.
- Select the unit or group for which you want to assign notification.
- Click on Next button.
- Select NOTIFIATORS out of email, web popup, mobile notification and SMS by enabling the respective options.
- Click on Next button.
- Set the properties of the Notification including name, geofence, duration, timings etc.
- Click on the SAVE button.

Analog:

- Analog notifications can be set for various events like fuel, temperature, RPM etc.
- Select the maximum and minimum limit for which you want to receive notification from the drop down list.
- Check the trigger when option by checking In range or Out range option.
- Select the unit or group for which you want to assign notification.
- Click on Next button.
- Select NOTIFICATORS out of email, web popup, mobile notification and SMS by enabling the respective options.
- Click on Next button.
- Set the properties of the Notification including name, geofence, calendar (duration, timings) etc.
- Click on the SAVE button.

Detect:

- Detect notifications can be set for various events like driver changed, passenger changed, trailer changed.
- Check the 'Consider Null Value' checkbox if you also want to accept null values.
- Select the unit or group for which you want to assign notification.
- Click on Next button.
- Select NOTIFICATORS out of email, web popup, mobile notification and SMS by enabling the respective options.
- Click on Next button.
- Set the properties of the Notification including name, geofence, calendar (duration, timings) etc.
- Click on the SAVE button.

Unit Status:

- Unit status notifications can be set for various events like Connection restore, Status unknown, Connection loss.
- Select the unit or group for which you want to assign notification.
- Click on Next button.
- Select NOTIFICATORS out of email, web popup, mobile notification and SMS by enabling the respective options.
- Click on Next button.
- Set the properties of the Notification including name, geofence, calendar (duration, timings) etc.
- Click on the SAVE button.

Eco Driving:

- Eco driving notifications can be set for various events like Harsh Brake, Harsh Turn, Harsh Acceleration, Harsh Bump.
- Select the tolerance, maximum and minimum limit for which you want to receive notification from the drop down list.
- Select the unit or group for which you want to assign notification.
- Click on Next button.
- Select NOTIFICATORS out of email, web popup, mobile notification and SMS by enabling the respective options.
- Click on Next button.
- Set the properties of the Notification including name, geofence, calendar (duration, timings) etc.
- Click on the SAVE button.

Fuel:

- Eco driving notifications can be set for various events like Filling and Drain.
- Select the unit or group for which you want to assign notification.
- Click on Next button.
- Select NOTIFICATORS out of email, web popup, mobile notification and SMS by enabling the respective options.
- Click on Next button.
- Set the properties of the Notification including name, geofence, calendar (duration, timings) etc.
- Click on the SAVE button.

REPORTS

GSHMAP provides a unique report form module, which acquired all-around statistics and analytics. The summary data can be displayed from various perspectives i.e. in tables and graphs. Various types of customized reporting options are available according to user's requirements.

Report Templates

To generate a report template, users should have access right to generate report templates. GSHMAP provided the following report templates and that is available to the users:

Trip Report: Trip report template gives detailed information on trips history or the intervals of movement, including trips total length, travel time, average and maximum speed.

Stops Report: Stops report gives a breakdown of stops, addresses, and duration. This report template also gives you an ability to check the ignition time.

Engine Hours Report: Engine hours report template gives an overall activity diagram for the period in the form of a pie chart. This report template provides detailed information to display engine hours details in movement and idling and shows the how much time was in motion.

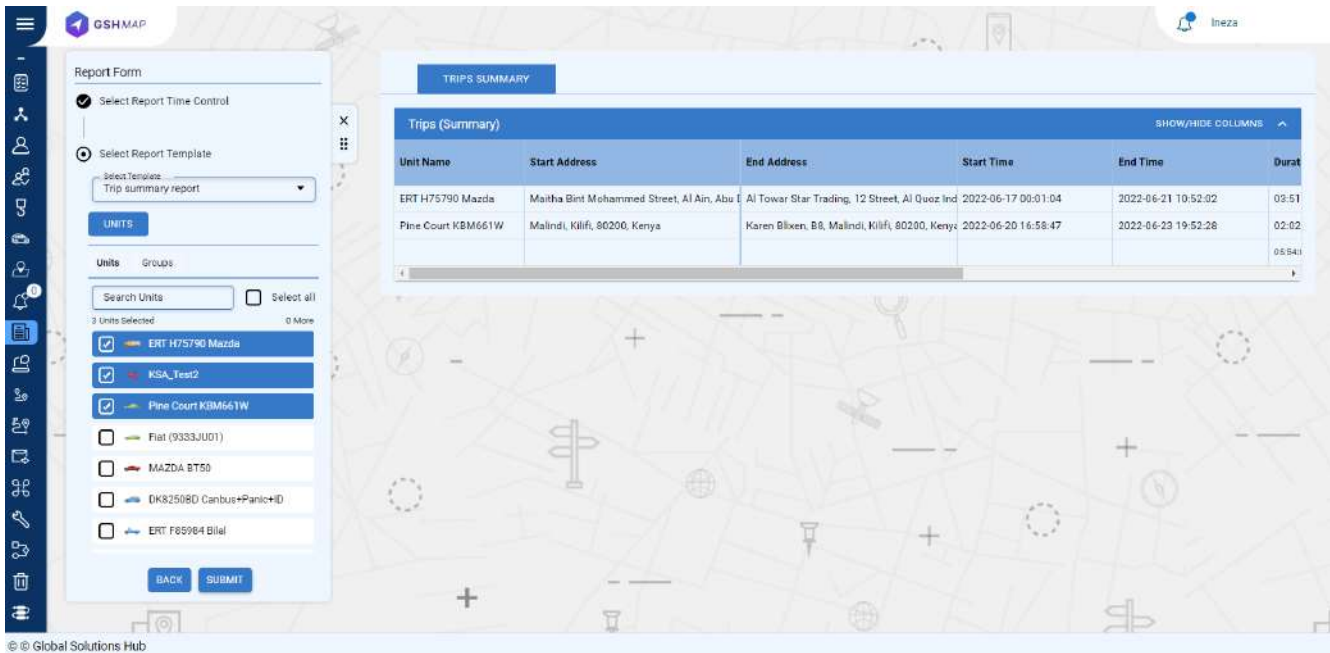
Fuel Report: Fuel report template gives an overall fuel consumption for the period in the form graph. This report template provides detailed information about fuel consumption with fuel counts and drains counts at a certain time and place.

Geofence Report: Geofence report template displays the number of visits to geofences during a specific duration including the distance in km.

Eco-Driving: Eco-Driving report templates give detailed information on how a driver handles the vehicle and analysis of the driving behavior. **Event Report:** Event report template gives detailed information on all types of events i.e. ignition on, ignition off, status online, status offline, etc.

Report Creation

- Select the report template from the dropdown list.
- Select the date and time range for which you need report.
- Select units, groups or staff whose report is required.
- Click on UNITS button to select a unit or multiple units from the units list (Select all units by checking 'Select all' checkbox) whose report is required.
- Click on GROUPS button to select a group or multiple groups (Select all groups by checking 'Select all' checkbox) whose report is required.
- Click on STAFF button to select a staff member or multiple staff members (Select all staff members by checking 'Select all' checkbox) whose report is required.
- Click on the Submit button to view report.



Report Form

- Select Report Time Control
- Select Report Template
 - Select Template...
 - Trip summary report

UNITS

Units Groups

Search Units Select all

3 Units Selected 0 More

- ERT H75790 Mazda
- KSA_Test2
- Pine Court KBM661W
- Fiat (9333JU01)
- MAZDA BT50
- DK82508D Canbus+Panic+ID
- ERT F85984 Bilal

TRIPS SUMMARY

Trips (Summary) SHOW/HIDE COLUMNS

Unit Name	Start Address	End Address	Start Time	End Time	Durat
ERT H75790 Mazda	Maiha Bint Mohammed Street, Al Ain, Abu	Al Towar Star Trading, 12 Street, Al Quoz Ind	2022-06-17 09:01:04	2022-06-21 10:52:02	03:51
Pine Court KBM661W	Malindi, Kilifi, 80200, Kenya	Karen Blixen, B8, Malindi, Kilifi, 80200, Kenya	2022-06-20 16:58:47	2022-06-23 19:52:28	02:02
					05:54

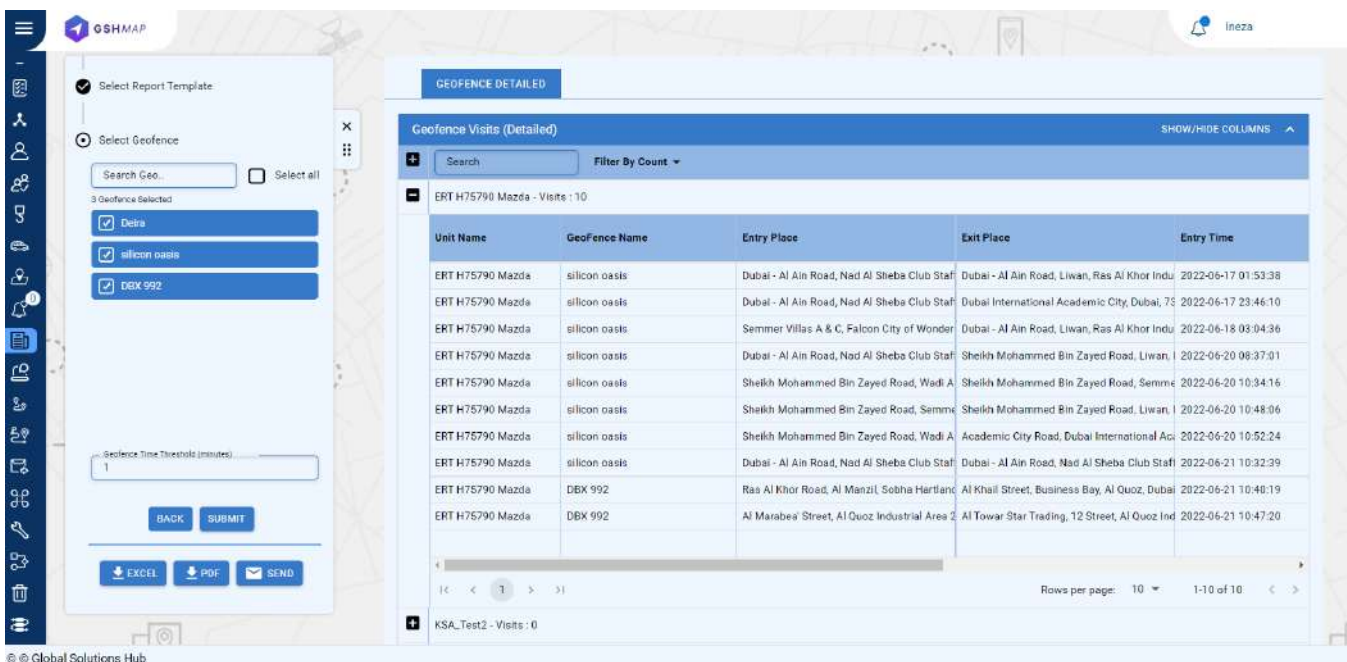
GSHMAP provides the two options in which users can download or mail the generated report template:

To save as Excel File:

- Chose the template of report
- Select the date and time range
- Click on the download button at the bottom

To mail:

- Chose the template of report
- Select the date and time range
- Click on the email button at the bottom.



GEOFENCE DETAILED

Geofence Visits (Detailed) SHOW/HIDE COLUMNS

Search Filter By Count

ERT H75790 Mazda - Visits : 10

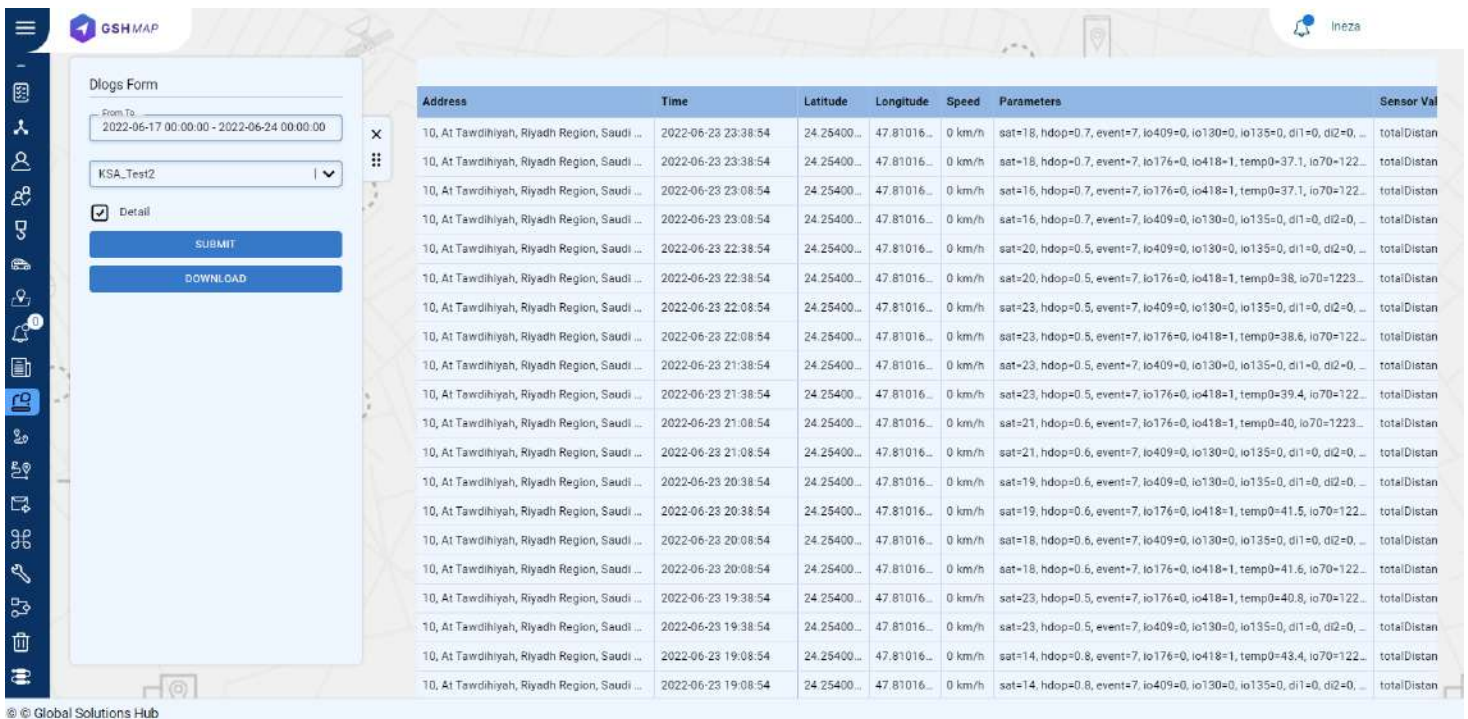
Unit Name	Geofence Name	Entry Place	Exit Place	Entry Time
ERT H75790 Mazda	silicon oasis	Dubai - Al Ain Road, Nad Al Sheba Club Staff	Dubai - Al Ain Road, Liwan, Ras Al Khor Indu	2022-06-17 01:53:38
ERT H75790 Mazda	silicon oasis	Dubai - Al Ain Road, Nad Al Sheba Club Staff	Dubai International Academic City, Dubai, 75	2022-06-17 23:46:10
ERT H75790 Mazda	silicon oasis	Semmer Villas A & C, Falcon City of Wonder	Dubai - Al Ain Road, Liwan, Ras Al Khor Indu	2022-06-18 08:04:36
ERT H75790 Mazda	silicon oasis	Dubai - Al Ain Road, Nad Al Sheba Club Staff	Sheikh Mohammed Bin Zayed Road, Liwan,	2022-06-20 08:37:01
ERT H75790 Mazda	silicon oasis	Sheikh Mohammed Bin Zayed Road, Wadi A	Sheikh Mohammed Bin Zayed Road, Semme	2022-06-20 10:34:16
ERT H75790 Mazda	silicon oasis	Sheikh Mohammed Bin Zayed Road, Semme	Sheikh Mohammed Bin Zayed Road, Liwan,	2022-06-20 10:48:06
ERT H75790 Mazda	silicon oasis	Sheikh Mohammed Bin Zayed Road, Wadi A	Academic City Road, Dubai International Aci	2022-06-20 10:52:24
ERT H75790 Mazda	silicon oasis	Dubai - Al Ain Road, Nad Al Sheba Club Staff	Dubai - Al Ain Road, Nad Al Sheba Club Staff	2022-06-21 10:32:39
ERT H75790 Mazda	DBX 992	Ras Al Khor Road, Al Manzil, Sobha Hartland	Al Khalil Street, Business Bay, Al Quoz, Dubai	2022-06-21 10:46:19
ERT H75790 Mazda	DBX 992	Al Marabea' Street, Al Quoz Industrial Area 2	Al Towar Star Trading, 12 Street, Al Quoz Ind	2022-06-21 10:47:20

Rows per page: 10 1-10 of 10

DLOGS

• Dlogs contains the complete database of the devices attached to the units. From location coordinates to speed, everything is available in Dlogs. In this module, users can view the Dlogs status form of the units for any picked date. Dlogs provides a data storage platform that ensures the security of the records.

All the information is available at one place to be retrieved quickly and conveniently.



The screenshot displays the GSHMAP interface. On the left, there is a 'Dlogs Form' with a date range selector (2022-06-17 00:00:00 - 2022-06-24 00:00:00), a unit dropdown menu (KSA_Test2), a 'Detail' checkbox, and 'SUBMIT' and 'DOWNLOAD' buttons. On the right, a table lists log entries with columns for Address, Time, Latitude, Longitude, Speed, Parameters, and Sensor Value.

Address	Time	Latitude	Longitude	Speed	Parameters	Sensor Val
10, At Tawdlihiyah, Riyadh Region, Saudi ...	2022-06-23 23:38:54	24.25400...	47.81016...	0 km/h	sat=18, hdop=0.7, event=7, io409=0, io130=0, io135=0, di1=0, di2=0, ...	totalDistan
10, At Tawdlihiyah, Riyadh Region, Saudi ...	2022-06-23 23:38:54	24.25400...	47.81016...	0 km/h	sat=18, hdop=0.7, event=7, io176=0, io418=1, temp0=37.1, io70=122...	totalDistan
10, At Tawdlihiyah, Riyadh Region, Saudi ...	2022-06-23 23:08:54	24.25400...	47.81016...	0 km/h	sat=16, hdop=0.7, event=7, io176=0, io418=1, temp0=37.1, io70=122...	totalDistan
10, At Tawdlihiyah, Riyadh Region, Saudi ...	2022-06-23 22:38:54	24.25400...	47.81016...	0 km/h	sat=20, hdop=0.5, event=7, io409=0, io130=0, io135=0, di1=0, di2=0, ...	totalDistan
10, At Tawdlihiyah, Riyadh Region, Saudi ...	2022-06-23 22:38:54	24.25400...	47.81016...	0 km/h	sat=20, hdop=0.5, event=7, io176=0, io418=1, temp0=38, io70=1223...	totalDistan
10, At Tawdlihiyah, Riyadh Region, Saudi ...	2022-06-23 22:08:54	24.25400...	47.81016...	0 km/h	sat=23, hdop=0.5, event=7, io409=0, io130=0, io135=0, di1=0, di2=0, ...	totalDistan
10, At Tawdlihiyah, Riyadh Region, Saudi ...	2022-06-23 22:08:54	24.25400...	47.81016...	0 km/h	sat=23, hdop=0.5, event=7, io176=0, io418=1, temp0=38.6, io70=122...	totalDistan
10, At Tawdlihiyah, Riyadh Region, Saudi ...	2022-06-23 21:38:54	24.25400...	47.81016...	0 km/h	sat=23, hdop=0.5, event=7, io409=0, io130=0, io135=0, di1=0, di2=0, ...	totalDistan
10, At Tawdlihiyah, Riyadh Region, Saudi ...	2022-06-23 21:38:54	24.25400...	47.81016...	0 km/h	sat=23, hdop=0.5, event=7, io176=0, io418=1, temp0=39.4, io70=122...	totalDistan
10, At Tawdlihiyah, Riyadh Region, Saudi ...	2022-06-23 21:08:54	24.25400...	47.81016...	0 km/h	sat=21, hdop=0.6, event=7, io176=0, io418=1, temp0=40, io70=1223...	totalDistan
10, At Tawdlihiyah, Riyadh Region, Saudi ...	2022-06-23 21:08:54	24.25400...	47.81016...	0 km/h	sat=21, hdop=0.6, event=7, io409=0, io130=0, io135=0, di1=0, di2=0, ...	totalDistan
10, At Tawdlihiyah, Riyadh Region, Saudi ...	2022-06-23 20:38:54	24.25400...	47.81016...	0 km/h	sat=19, hdop=0.6, event=7, io409=0, io130=0, io135=0, di1=0, di2=0, ...	totalDistan
10, At Tawdlihiyah, Riyadh Region, Saudi ...	2022-06-23 20:38:54	24.25400...	47.81016...	0 km/h	sat=19, hdop=0.6, event=7, io176=0, io418=1, temp0=41.5, io70=122...	totalDistan
10, At Tawdlihiyah, Riyadh Region, Saudi ...	2022-06-23 20:08:54	24.25400...	47.81016...	0 km/h	sat=18, hdop=0.6, event=7, io409=0, io130=0, io135=0, di1=0, di2=0, ...	totalDistan
10, At Tawdlihiyah, Riyadh Region, Saudi ...	2022-06-23 20:08:54	24.25400...	47.81016...	0 km/h	sat=18, hdop=0.6, event=7, io176=0, io418=1, temp0=41.6, io70=122...	totalDistan
10, At Tawdlihiyah, Riyadh Region, Saudi ...	2022-06-23 19:38:54	24.25400...	47.81016...	0 km/h	sat=23, hdop=0.5, event=7, io176=0, io418=1, temp0=40.8, io70=122...	totalDistan
10, At Tawdlihiyah, Riyadh Region, Saudi ...	2022-06-23 19:38:54	24.25400...	47.81016...	0 km/h	sat=23, hdop=0.5, event=7, io409=0, io130=0, io135=0, di1=0, di2=0, ...	totalDistan
10, At Tawdlihiyah, Riyadh Region, Saudi ...	2022-06-23 19:08:54	24.25400...	47.81016...	0 km/h	sat=14, hdop=0.8, event=7, io176=0, io418=1, temp0=43.4, io70=122...	totalDistan
10, At Tawdlihiyah, Riyadh Region, Saudi ...	2022-06-23 19:08:54	24.25400...	47.81016...	0 km/h	sat=14, hdop=0.8, event=7, io409=0, io130=0, io135=0, di1=0, di2=0, ...	totalDistan

Dlogs

To generate Dlogs:

- Select the date and time range
- Select the unit from the dropdown
- Click on Submit button

The positions of the selected unit within the selected time period will be displayed in the Dlog form.

Detail Checkbox:

If you want to show all the parameters in separate columns in downloaded dlogs, enable this option.

Download Dlogs:

Click on the download option to download dlogs.

ELOGIC

On the ELOGICs tab of the Group options, users can create, edit, delete or view ELOGICs and can assign ELOGICs to the groups.

In the GSHMAP, ELOGICs can be of any names. Some names are predefined in the device configuration. ELOGICs is a required sensor property. Most of the sensors are based on the ELOGIC configuration setting of the device. ELOGIC can also be used to create sensors.

To work with the ELOGICs, choose the ELOGICs tab in the Units component. User need to have access right to create, edit, assign and delete ELOGICs. Otherwise, user can only view existing ELOGICs.

Create ELOGIC

To create an ELOGIC:

- Click on the Create new button
- Enter description of the ELOGIC
- Enter attributes of the ELOGIC
- Enter the ELOGIC/input value
- Enter Type (String, Number, Boolean)
- Click on Add button

Assign ELOGIC

- To assign ELOGICs to the groups – Click on the group and then ELOGICs tab.
- Click on the check boxes of the ELOGICs to assign this group.
- The ELOGICs with the right tick in the check boxes are those who already have some access to this group.
- The ELOGICs with the empty check boxes are those who doesn't have access to this group.

Search ELOGIC

- To find the required ELOGIC in the ELOGICs list, use the search field above ELOGICs list.
- Enter the required ELOGIC name in search field, the result will display.

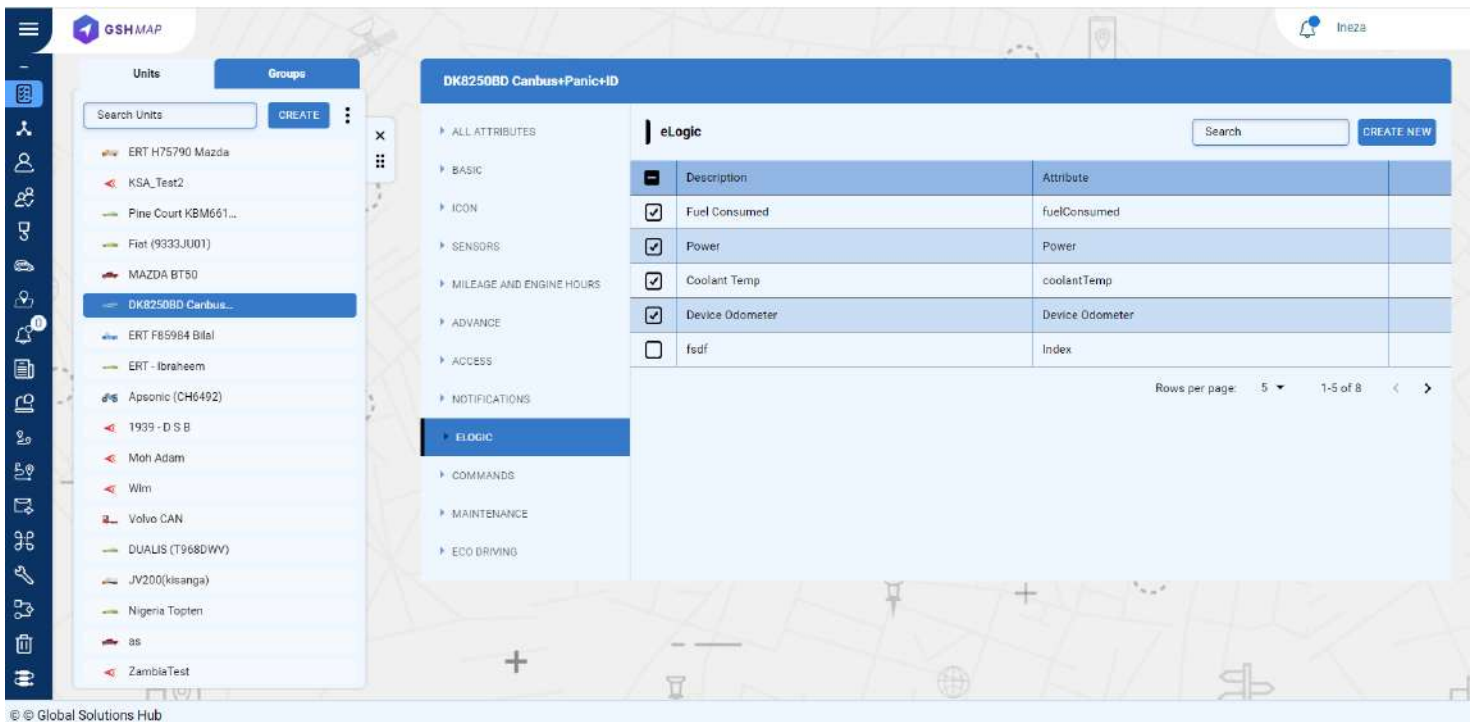
Delete ELOGIC

- To delete an ELOGIC:
- Select the ELOGIC on the ELOGICs list and click on Delete icon next to ELOGIC name in the ELOGICs list.
- The ELOGIC will be deleted successfully and will not be displayed in the ELOGICs list.

Update ELOGIC

To update an ELOGIC:

- Select the ELOGIC on the ELOGICs list and click on Edit icon next to ELOGIC name in the ELOGICs list
- Update the ELOGIC information that user wants to update and then click on update button.
- The ELOGIC information will be updated successfully.



The screenshot shows the GSHMAP interface with a sidebar on the left containing a list of units. The main content area is titled "DK8250BD Canbus+Panic+ID" and displays the "eLogic" configuration page. The page includes a search bar and a "CREATE-NEW" button. Below this is a table with columns for "Description" and "Attribute".

Description	Attribute
<input checked="" type="checkbox"/> Fuel Consumed	fuelConsumed
<input checked="" type="checkbox"/> Power	Power
<input checked="" type="checkbox"/> Coolant Temp	coolantTemp
<input checked="" type="checkbox"/> Device Odometer	Device Odometer
<input type="checkbox"/> fsdf	Index

At the bottom of the table, there is a pagination control showing "Rows per page: 5" and "1-5 of 8".

COMMANDS

In the Commands tab of the Group options, users can create, edit, delete and configure commands to be sent to the groups.

To send a command to the group, user need to have access right to create, edit, assign and delete commands. Otherwise, user can only view existing commands.

Create Command

To create a command:

- Click on the Create new button
- Enter description of command
- Select send SMS check box (optional)
- Select type of command from dropdown list
- Click on Add button.

Assign Commands

- To assign commands to the groups – Click on the group and then Commands tab.
- Click on the check boxes of the Commands to assign this group.
- The commands with the right tick in the check boxes are those who already have some access to this group.
- The commands with the empty check boxes are those who doesn't have access to this group.

Search Command

- To find the required command in the commands list, use the search field above commands list.
- Enter the required command name in search field, the result will display.

Delete Command

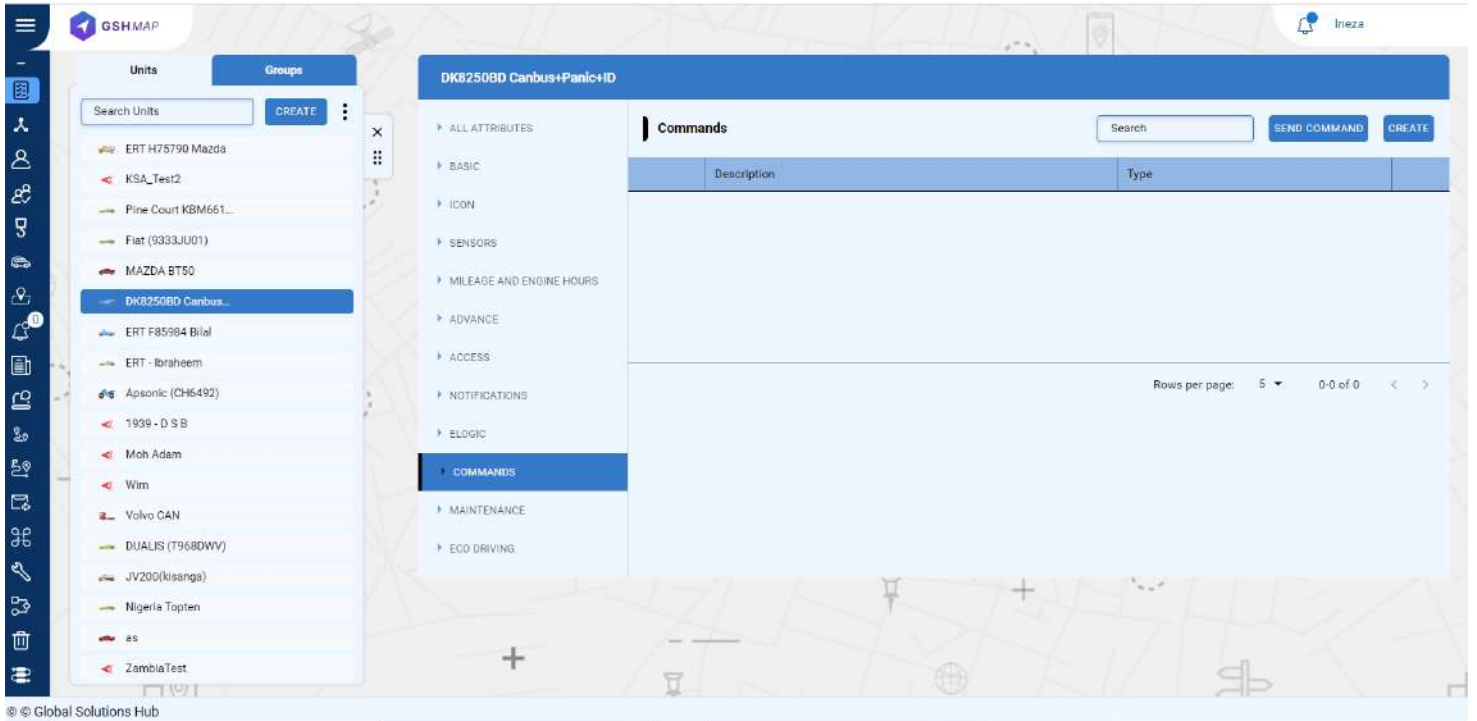
To delete a command:

- Select the command on the commands list and click on Delete icon next to command name in the command list.
- The command will be deleted successfully and will not be displayed in the commands list.

Update Command

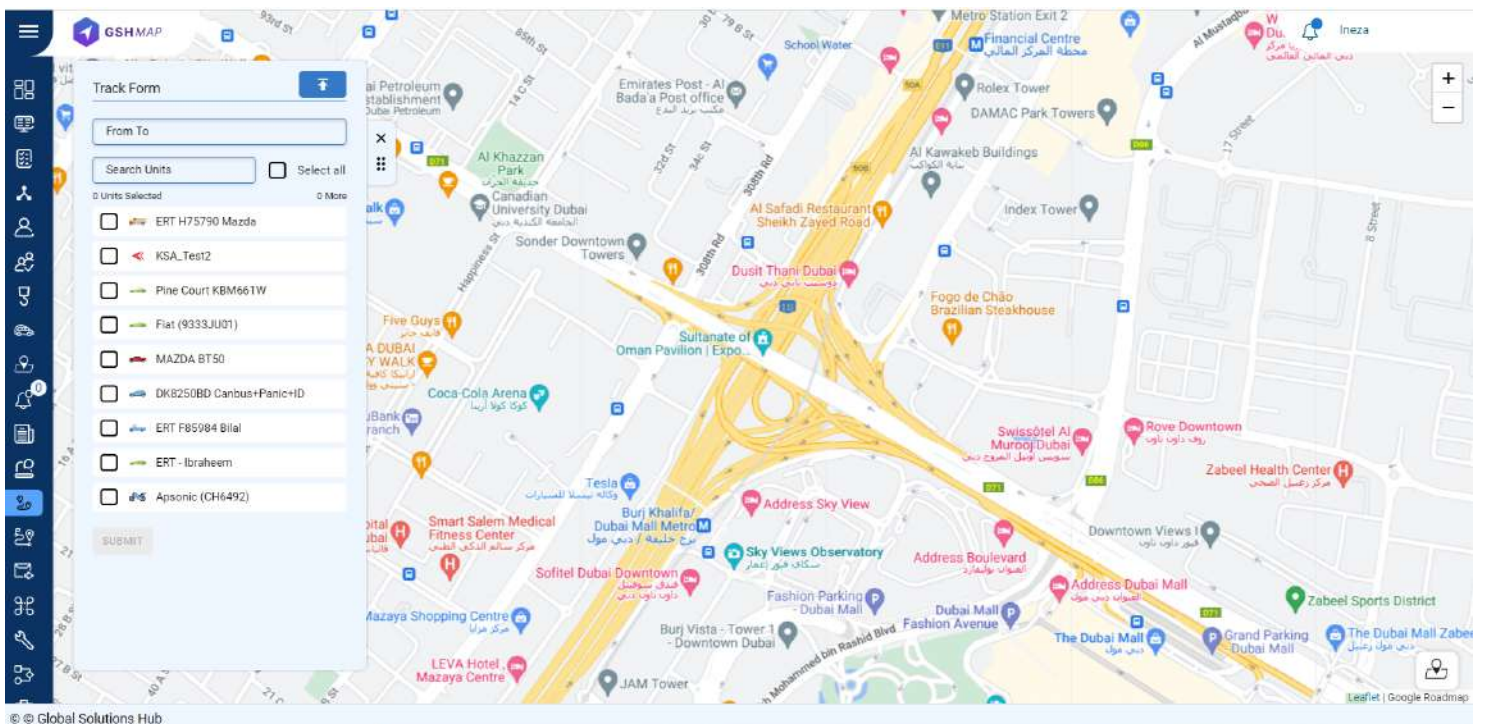
To update a command:

- Select the command on the commands list and click on Edit icon next to command name in the commands list
- Update the command information that user wants to update and then click on update button.
- The command information will be updated successfully.



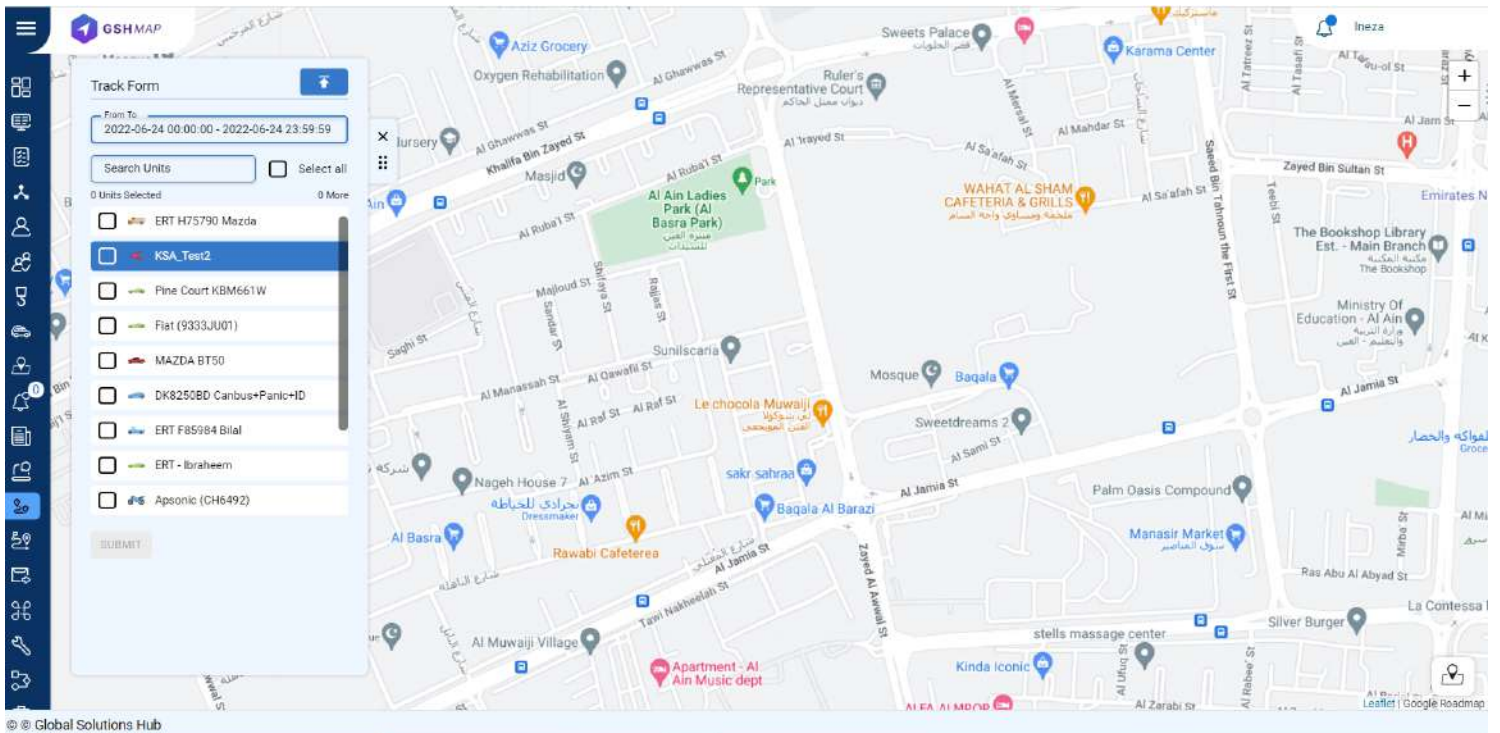
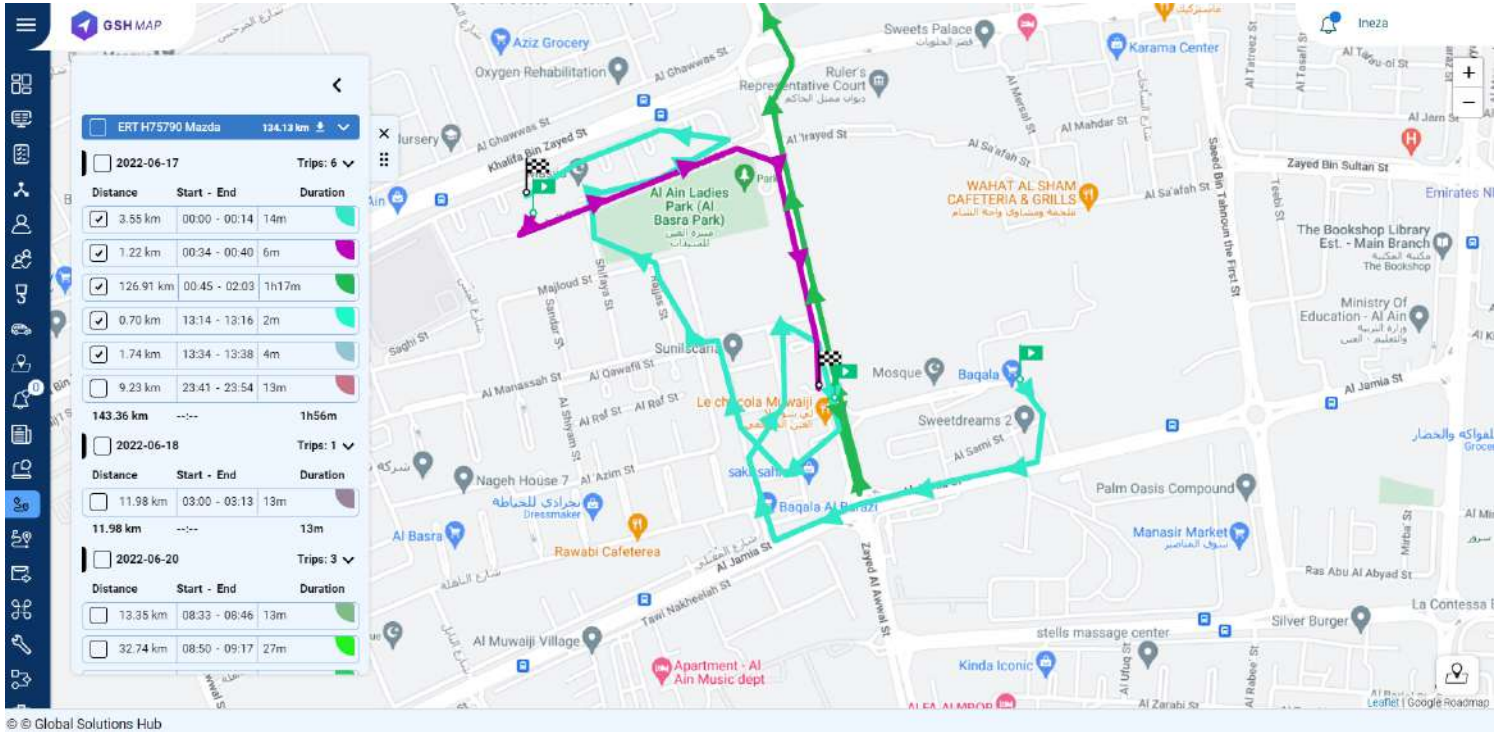
TRACKS

This module contains the detailed information regarding all the trips made by the units. The user can view complete track details and history of units for the chosen date and time range.

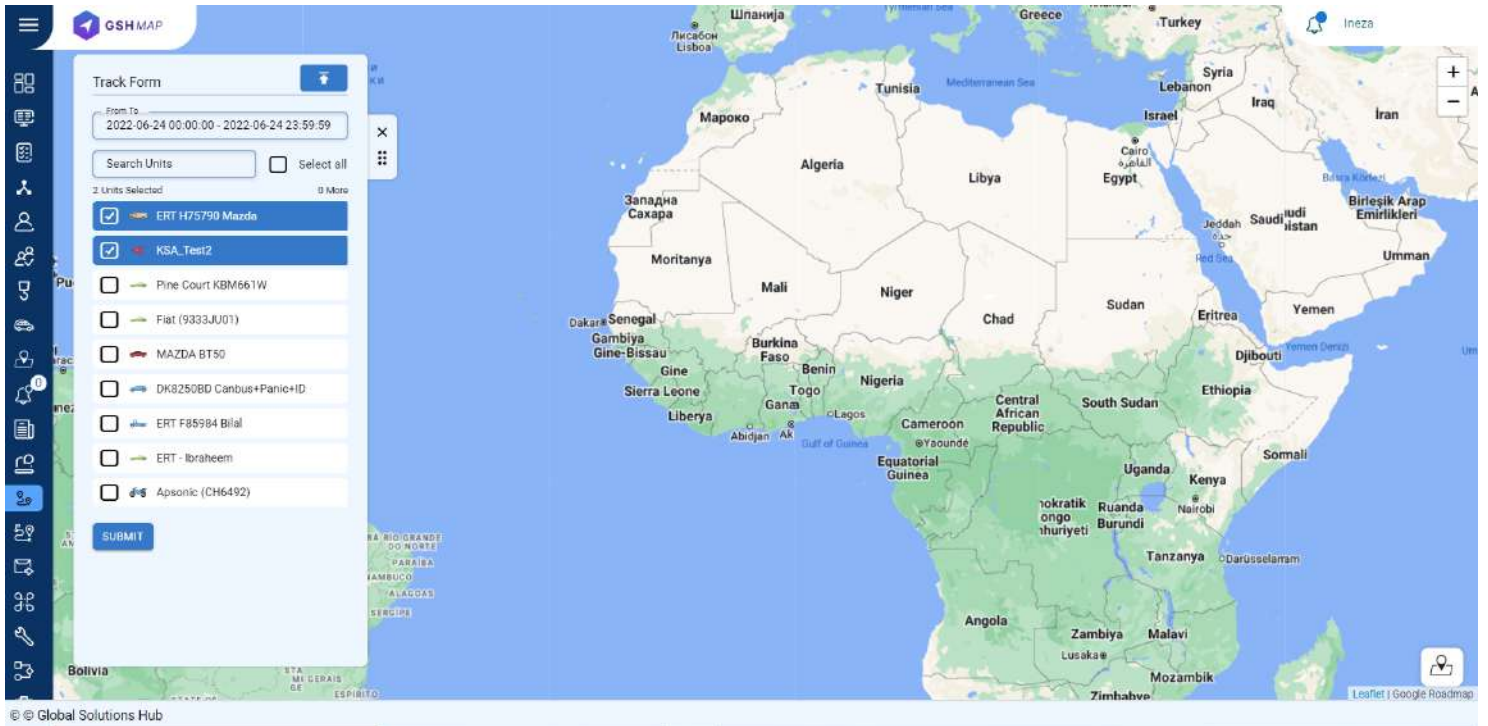


View tracks

- A track form view is used to see the location history of units from starting position in green flag icon to ending position in black & white flag icon.
- Add the duration for which tracking history is required in the 'From To' option.
- Search the unit by its name for which you want to view the search history or select it from the list.
- Click on the SUBMIT button to view the track history of the selected unit.



- Tracks list will display on the right top menu screen.
- To view the trips, user can select check boxes of trips.
- Trips will display on the map with starting position in green flag icon to ending position in black & white flag icon.



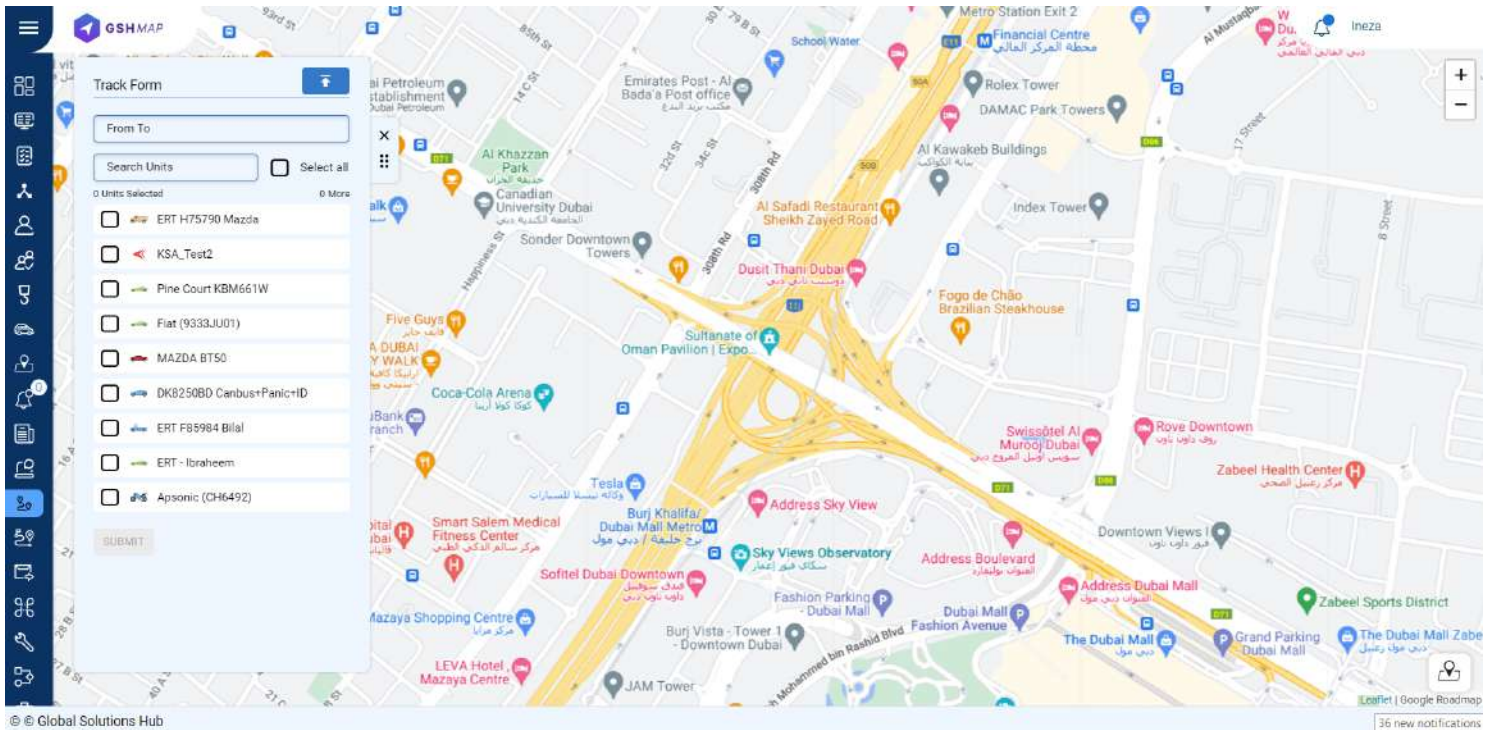
Trips color

- Each trip will be displayed with particular color to differentiate it from others.
- User can also change the color of trips by clicking on color icon next to each trip.



Upload and Download Track Files:

- The user can upload a KML file of any track by clicking on the small icon next to Track Form.
- The uploaded track will be displayed on the map.
- The track details of any unit can be downloaded by clicking on the download option next to its name.



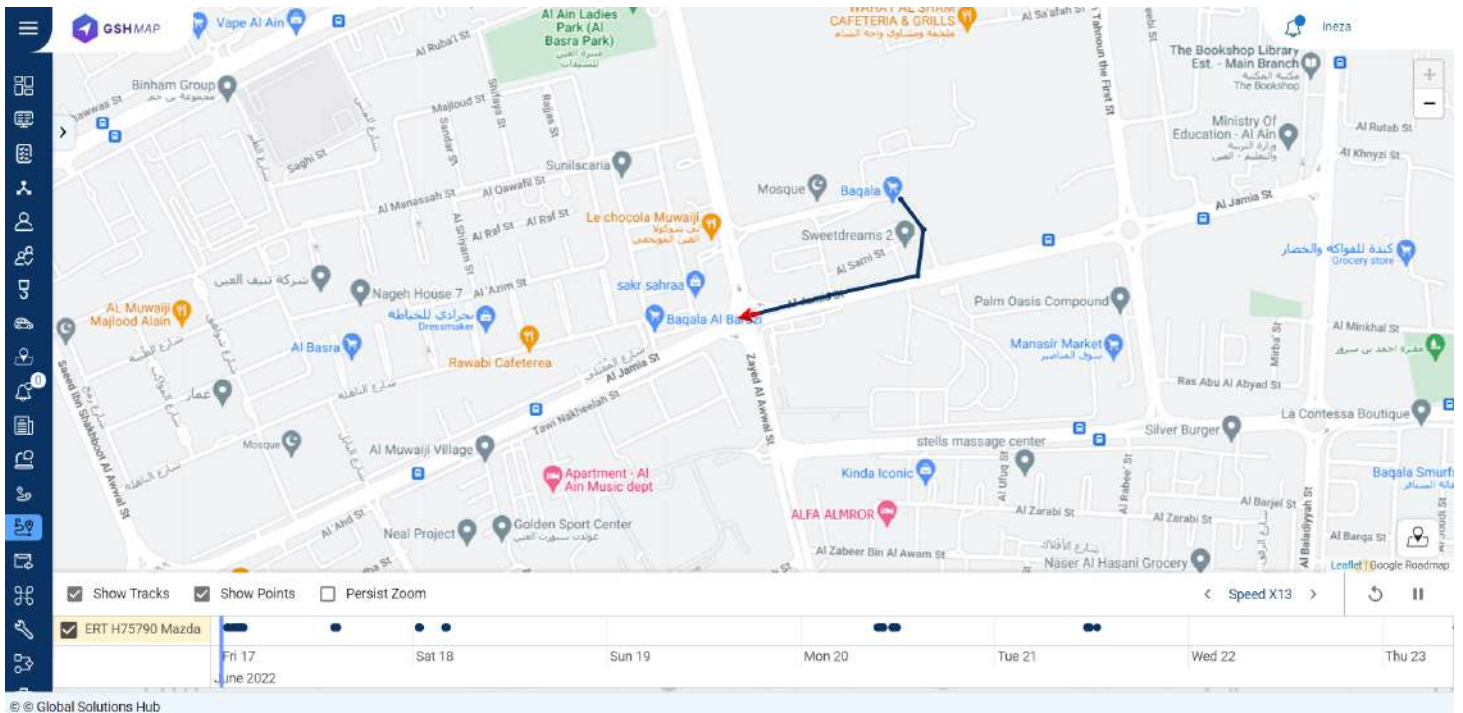
The screenshot displays the GSHMAP application interface. On the left, a vertical toolbar contains various navigation and tool icons. The main area is a map of Dubai, showing a yellow track overlay. A 'Track Form' overlay is visible on the left side of the map. The form includes a 'From To' field, a 'Search Units' field, and a list of units with checkboxes and download icons. The units listed are:

- ERT H75790 Mazda
- KSA_Test2
- Pine Court KBM661W
- Fiat (9333JU01)
- MAZDA BT50
- DK8250BD Canbus+Panic+ID
- ERT F68594 Bilal
- ERT - Ibraheem
- Apsonic (CH6492)

The map shows various landmarks and a yellow track overlay. The bottom of the screen displays the copyright information: © Global Solutions Hub and 36 new notifications.

TIME MACHINE

GSHMAP provides a unique Time Machine module. Time Machine is a device that permits you to playback the previous travel history of the units for any picked date. You can see every instant of a trip including movements, stops, speed by replaying it.



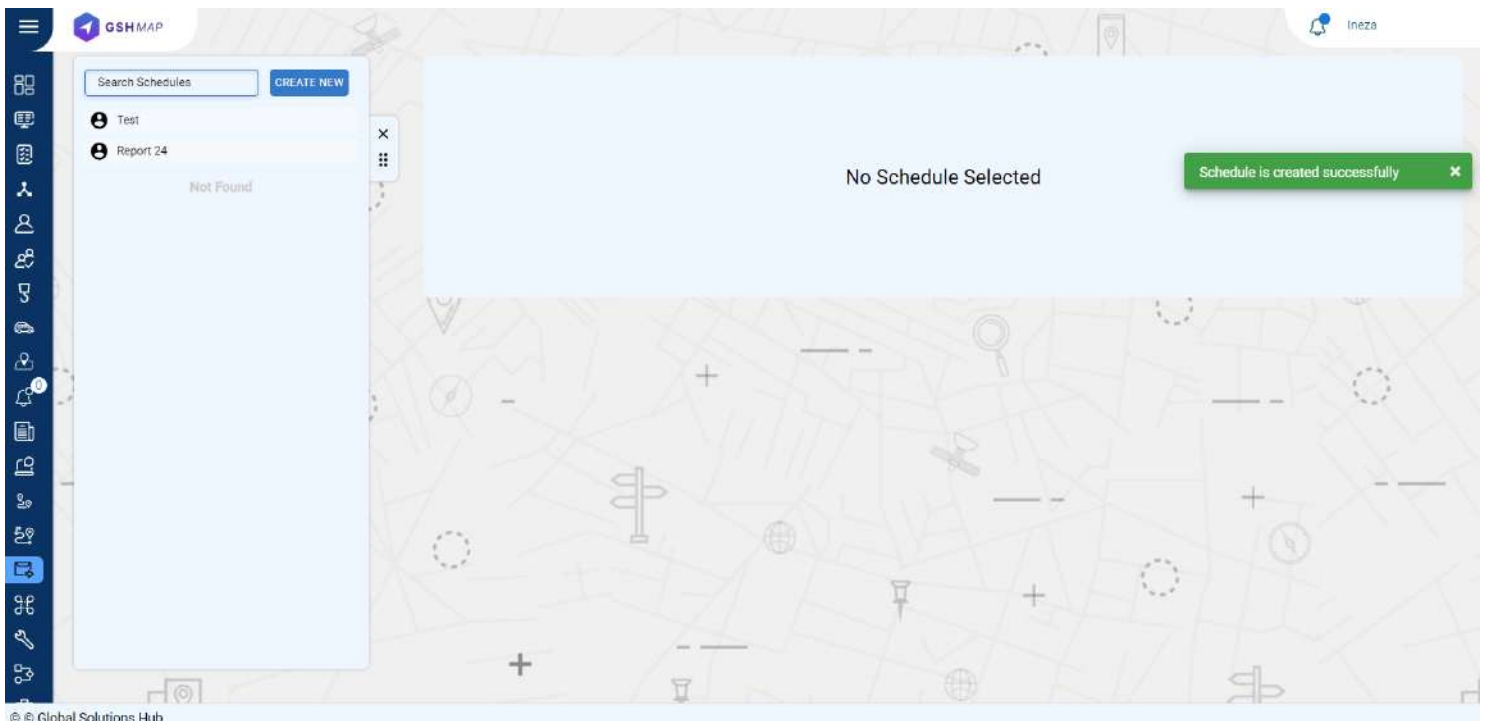
Time Machine Form

To generate a time machine form:

- Select the date and time range.
- Select the unit or multiple units from the units list (User can select multiple units or Select All unit's option).
- Click on the Submit button.
- At the bottom of the screen, the user will see the time machine settings.
- Users can set various options like playback speed, show tracks, and points on the map, etc. Click on the Play button.
- Users will see unit movement or previous travel history.
- Users can set speed control of unit travel history on the map.

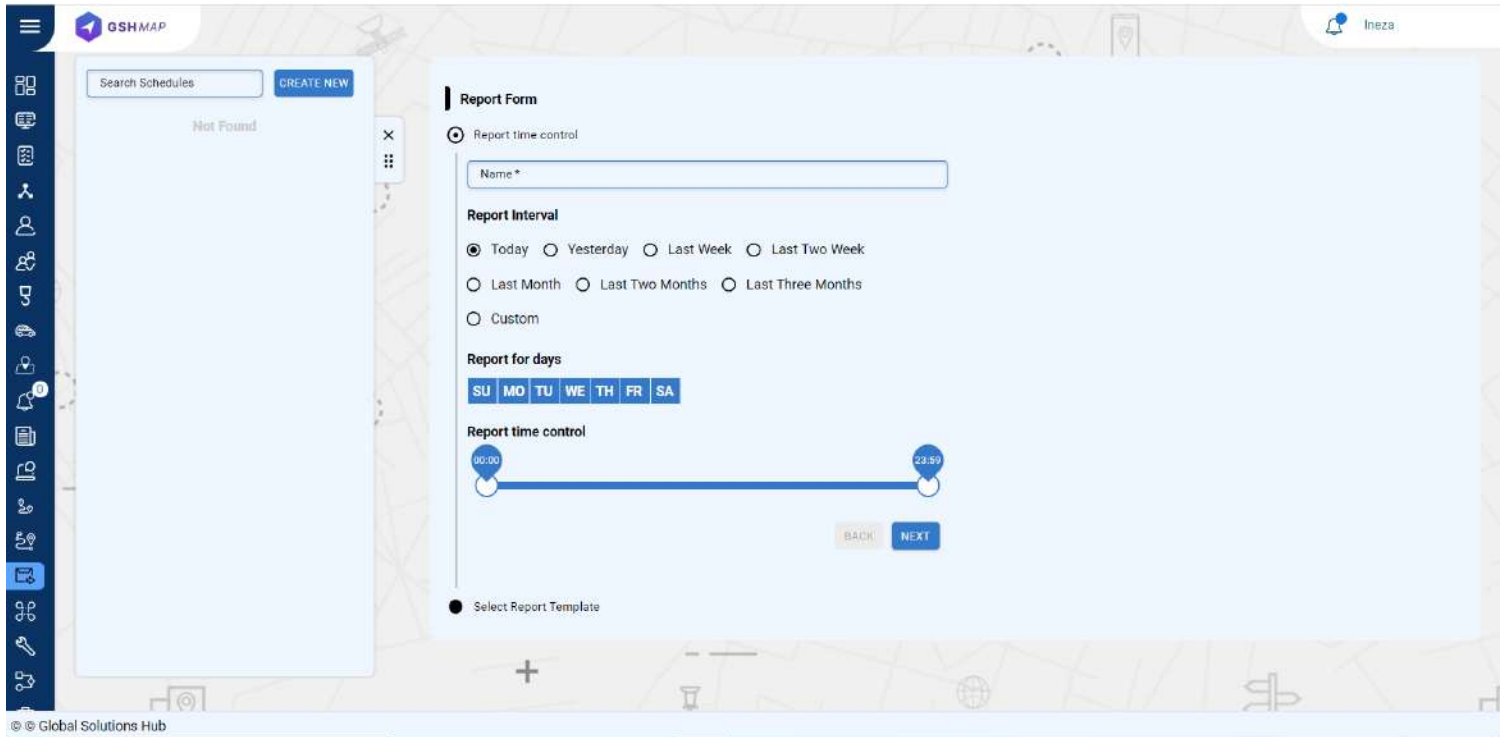
SCHEDULES

This module allows different reports to be scheduled for future to ensure efficient monitoring. The user can set an important event's notification beforehand to ensure convenience. Any type of notification can be scheduled for staff, units and groups with customized triggering settings. All the previously created schedules are shown in the list.



Creation of New Schedules

- Click on CREATE NEW button.
- Select the duration of report in 'Report From' option.
- Select the 'Report Template' from the dropdown list.
- Check the 'Report Interval' from the given options.
- Select the option from Staff, Units, Group for which report is required.
- Check the specific unit, group or staff or choose all by checking the 'Select all' checkbox.
- Click on the NEXT button.
- Select the Execution schedule.
- Choose Trigger Time for the report.
- Set repetition for the report.
- Set User email or custom emails by checking the respective options.
- Check the Enable checkbox to enable the status of the report.
- Click on UPDATE button to schedule report.



Delete Schedules

- Click on the delete option next to the schedule's name.
- Click OK button to delete and CANCEL to dismiss deletion.

The report will be successfully deleted and removed from the list.

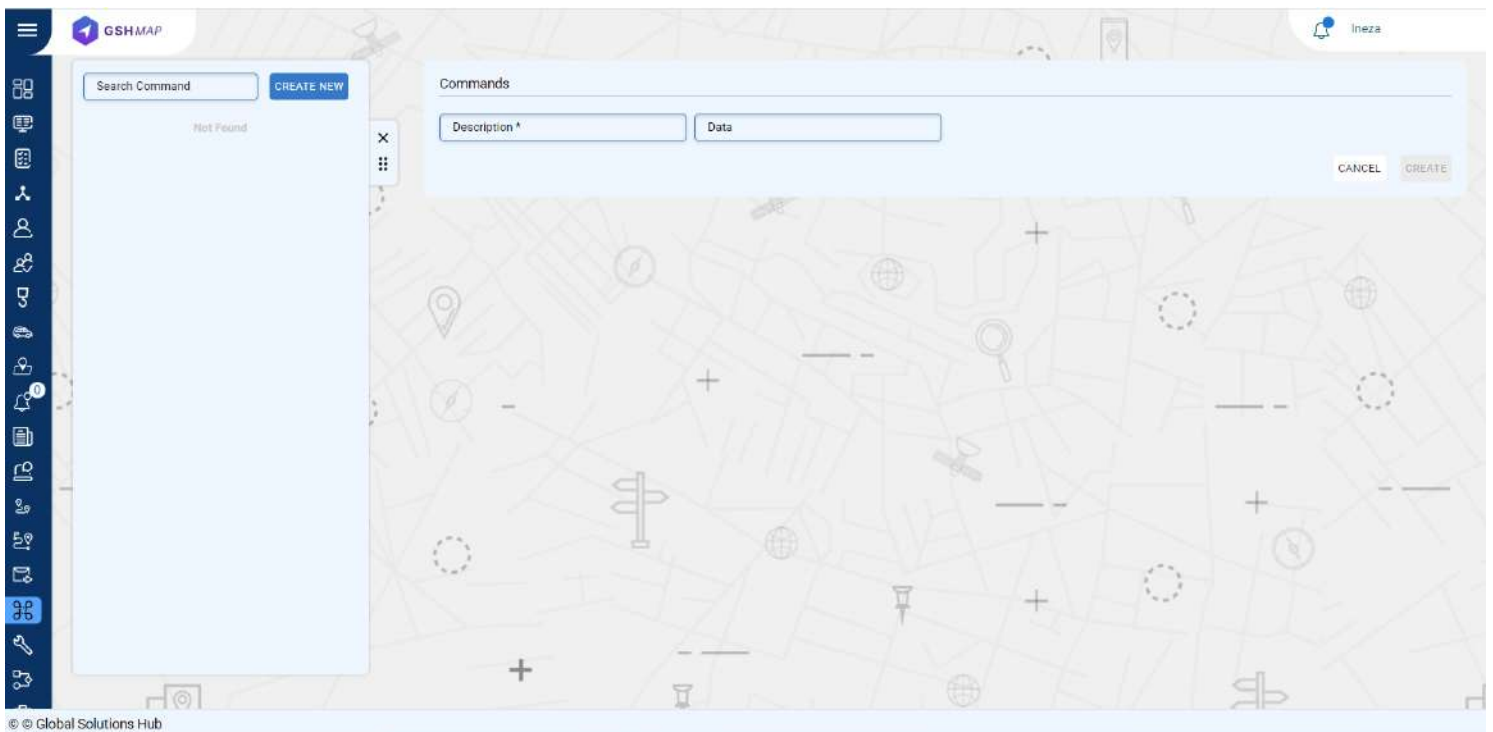
Edit Schedule

- Click on the Edit option next to the delete option.
- After adding all the information, click UPDATE button to save changes.

Click OK button to delete and CANCEL to dismiss deletion.

COMMANDS

Commands can be assigned according to the operational needs of the fleet. They can be set for the future to keep a smooth operational flow. A user can create, edit, view, or delete commands. Users need to have access right to create, edit, assign, and delete commands, otherwise, users can only view the existing commands.



Assigning Commands

- Click on the CREAT NEW button in commands section.
- Add description and data type of command.
- Click on CREATE button to create a command.
- Click on CANCEL button to dismiss command.
- Assign commands to units or user by selecting them.

Delete Command

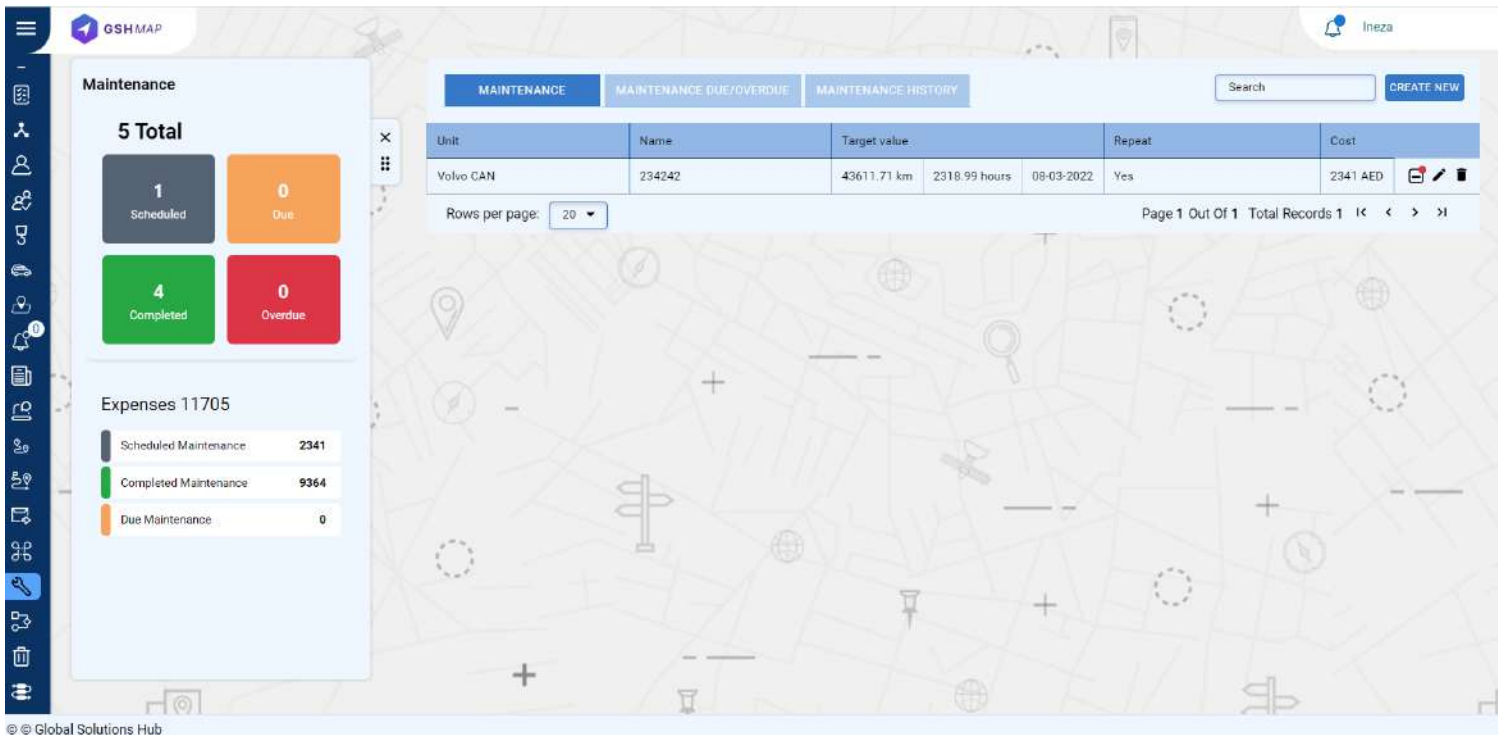
To delete a command, click on the bin icon next to the command's name in the list.

Sending Command:

- Go to the monitoring module and click on the three dots at the end of the unit name.
- Click on Send command option.
- Click on the send button and click Ok to send the command successfully.

MAINTENANCE

The maintenance of the units is managed and monitored through this module to ensure a fully functioning fleet. The maintenance deadline of any unit can be set based on different ELOGICs like date, mileage, engine hours etc. A user gets informed about the required maintenance of the unit through alerts.



Maintenance

5 Total

1 Scheduled	0 Due
4 Completed	0 Overdue

Expenses 11705

Scheduled Maintenance	2341
Completed Maintenance	9364
Due Maintenance	0

Unit	Name	Target value	Repeat	Cost
Volvo CAN	234242	43611.71 km 2318.99 hours	08-03-2022 Yes	2341 AED

Rows per page: 20

Page 1 Out Of 1 Total Records 1

© Global Solutions Hub

Create New

Users can create new maintenance according to their requirement.

Search Units

Select the unit for which you want to create a maintenance.

Name

Add name of the maintenance in this field.

Cost

Add the estimated cost of the maintenance.

Select Expense Type

You can select the expense type of the maintenance from the list.

Maintenance Parameters

You can set maintenance on three parameters including:

• *Mileage:*

Enable mileage parameter to set the maintenance based on mileage.

Target Value:

Set the value at which you want to trigger the due maintenance notification.

Reminder:

Check this checkbox to set a value less than the target value to remind you about the upcoming due maintenance.

Repeat:

Check this checkbox to add period after which maintenance will become due.

Period:

Add the value after which you want the trigger the due maintenance notification.

• *Engine Hours:*

Target Value:

Set the value at which you want to trigger the due maintenance notification.

Reminder:

Check this checkbox to set a value less than the target value to remind you about the upcoming due maintenance.

Repeat:

Check this checkbox to add period after which maintenance will become due.

Period:

Add the value after which you want the trigger the due maintenance notification.

- *Date*

Target Value:

Set the date at which you want to trigger the due maintenance notification.

Reminder:

Check this checkbox to set a date earlier than the target date to remind you about the upcoming due maintenance.

Repeat:

Check this checkbox to add period after which maintenance will become due.

Period:

Add the value after which you want the trigger the due maintenance notification.

User Input Required:

By checking this checkbox, the maintenance will become due allowing you to complete it by yourself. If this option is unchecked, the maintenance will be automatically completed once the notification is triggered.

Notificators:

User can receive notification on three mediums including:

- Email
- Web Popup
- Mobile Notification

Edit Maintenance:**Target Value:**

You can enter the target value for Mileage, Engine Hours and Date at which you want to receive the maintenance reminder.

Repeat:

If you want the maintenance reminder to trigger after every time period is completed, you can check this checkbox. For example, if the maintenance period is set for 100 km, every time the vehicle completes 100km, the reminder will be triggered.

Start:

In this field, you add the value from which the maintenance will start. For example, if you want to set maintenance on mileage and the car has a mileage of 7000 km, then you will add 7000 as the starting value. Similarly, if you want to set maintenance on engine hours and the vehicles' engine hours are 10000 then you will add 10000 as the starting value.

Period:

It is the period after which you want to trigger maintenance reminder. For example, if you are setting maintenance on mileage and you want the maintenance reminder to trigger after 100km, you have to set the period as 100km. Similarly, if you are setting maintenance on hours and want the reminder to trigger after 500 hours, you will set the period as 500 hours.

ASSIGN USER:

After creating a maintenance, you can assign it to the users according to your requirement. You can assign the users one by one or select all at once.

Maintenance Due/Overdue:

When the notification is triggered and the 'User input required' option is checked, the maintenance goes in this category. You can view the status of the maintenance showing due and overdue.

Due:

When the maintenance notification is triggered once and it has not been marked completed, it is considered due.

Overdue:

After becoming due, when the maintenance notification is triggered again when the threshold is achieved, it becomes overdue.

Mark Complete:

You can click on this option to mark a maintenance as complete.

Update Maintenance:

By checking this checkbox, the values added by you at which the actual maintenance was performed will be updated. The next notification will be triggered by adding the period in the updated value.

Odometer:

Add the actual odometer reading at which you performed the maintenance.

Engine Hours:

Add the actual engine hours at which you performed the maintenance.

Date:

Add the actual date at which you performed the maintenance.

Add All Expenses:

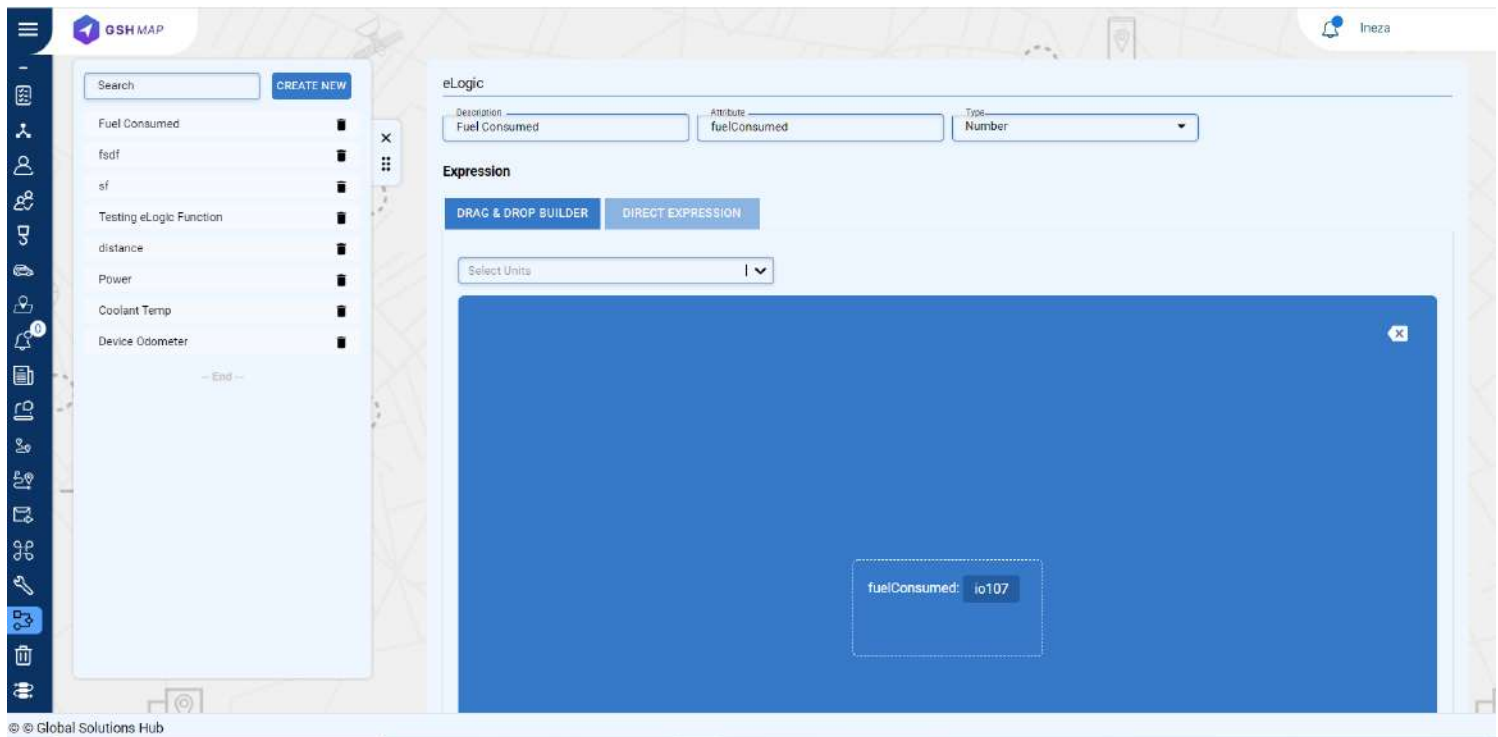
You can select the expense types of all the maintenance tasks that you have actually performed. Click on 'Add More' option to add multiple expense types.

Upload:

You can upload any maintenance by clicking on this option.

ELOGIC

eLogic contains the mathematical and logical operations applied for converting data received from the sensors. The data inputs of different ELOGICs like odometer reading, acceleration, speed etc. can be set according to convenience.



Create ELOGIC

- To create new eLogic, click on the 'CREATE NEW' button.
- The eLogics already created appear on the list.

• *Drag & Drop Builder:*

In this user-friendly feature, the users have everything available in front of them. They can just drag and drop everything including attributes and operators to get the desired result.

• *Direct Expression:*

If you want to write the complete expression by yourself, you can do it through this option.

Search ELOGIC

- You can search for any previously created eLogic by typing its name.
- By clicking on the name of any eLogic, its details will show up.

Delete ELOGIC

- An eLogic can be deleted from the list by clicking on the delete option.

Update ELOGIC

- The name and the attribute of an eLogic can be set according to requirement.
- The required input value and the data type of an eLogic can be set.
- By clicking the 'CANCEL' button, the eLogic will not be updated.
- By clicking on the 'UPDATE' button, the eLogic will be updated
- After updating the eLogic, it can be assigned according to the requirement.

Assign ELOGIC

Assign Unit

You can select the unit on which you want to assign the eLogic.

Assign User

You can select the user on which you want to assign the eLogic.

TRASH

The trash module is designed to prevent the sudden deletion of a resource or entity immediately. When an entity is deleted by the user, it goes in the Trash and stays there for 30 days. It can be restored within 30 days otherwise it gets deleted permanently. All the entities and resources deleted by the user show up in the Trash with their description and type.

Restore

By clicking on RESTORE icon, the entity or resource can be restored.

Delete

You can also delete an entity by clicking on Delete icon.

ACTION LOGS:

Action Logs contain the complete record of all the actions performed on the software. It shows the action along with its execution time.

Search Action Logs:

You can search the action logs related to every individual entity by selecting it from the list.