

WiSense IoT Dashboard

WiSense IoT dashboard offers real-time sensor data collection and visualization on the cloud. The dashboard is maintained on a reliable and powerful cloud infrastructure including a NoSQL database for better data management, and market-leading software stack which offers faster response time for data updates. The UI comes with various visualization options and also supports configurable SMS/Email alert and alarm generation features.

You can choose any cloud platform (AWS, Google, Microsoft Azure, etc) to host the dashboard.

Please note that WiSense will build and host the dashboard according to customer requirements. We can help even if you are not using WiSense hardware.

Document content:

1. Login and account management
2. Customer accounts and devices
3. Dashboards and visualization options
4. Alerts and alarm features
5. Mobile view

I. Login and account management:

Customers can log in and see devices, alerts settings, and alarm details. The visualization page or dashboard page will have all the latest information associated with a device in a simple and intuitive way.

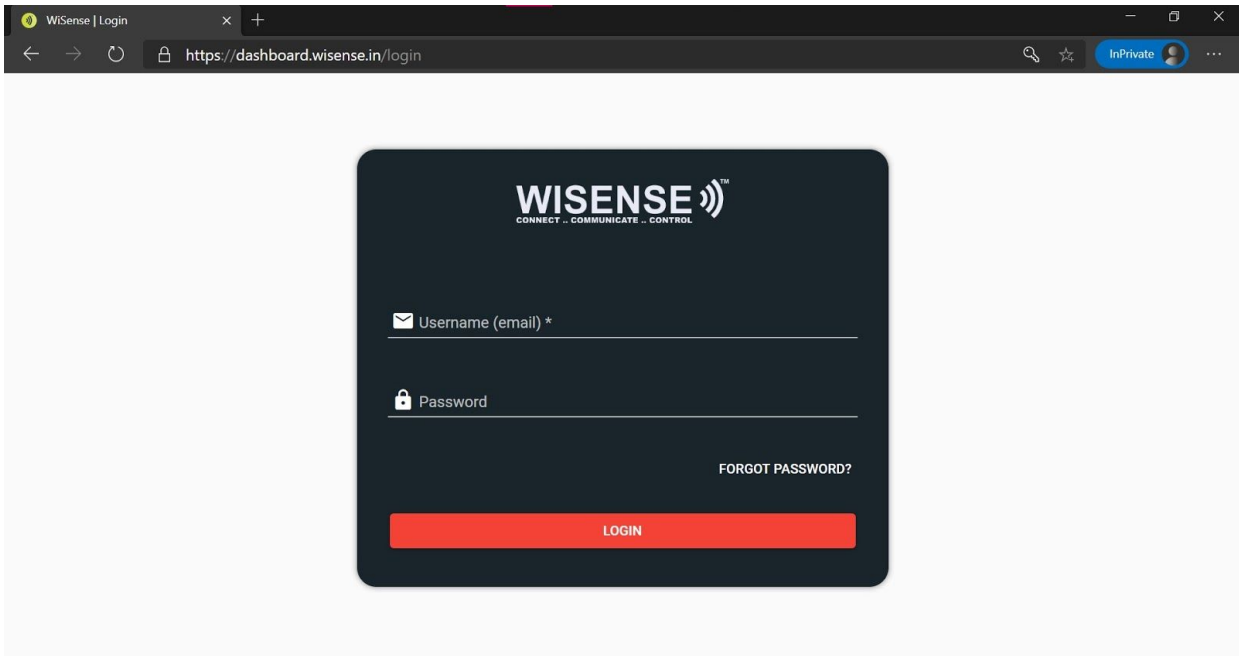


Fig 01- WiSense dashboard login page

Each settings are separated as different cards on the dashboard page and will bear different purposes. There are cards for line chart and tabular visualization, latest sensor values, last message time, searching time and messages, alerts settings, and options to change outgoing alert email ids and phone numbers.

From the alarms table, the user can acknowledge and view different active and cleared alarms on a given time. All the card time-frames can be decided as real-time or historical from a specified period using the time interval option on the card.

Data is updated each time querying from a NoSQL database and it assures fault-tolerance. There will not be any faults in data what dashboard displays and there are fewer chances of data getting corrupted due to any connectivity issue from the user side.

The recommended option for dashboard access is a password-protected login. There is an optional password-less read-only view also.

II. Customer accounts and devices:

Customer account privileges:

- View dashboard
- Change alert/alarm thresholds
- Acknowledge alarms

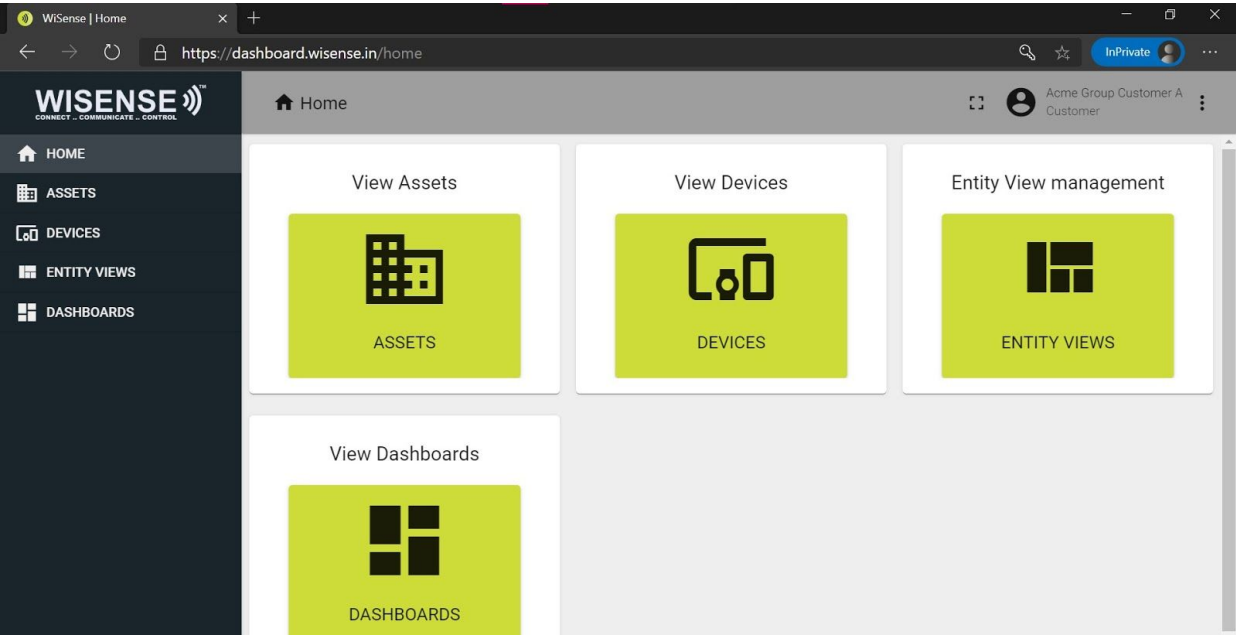


Fig 02- WiSense customer home page.

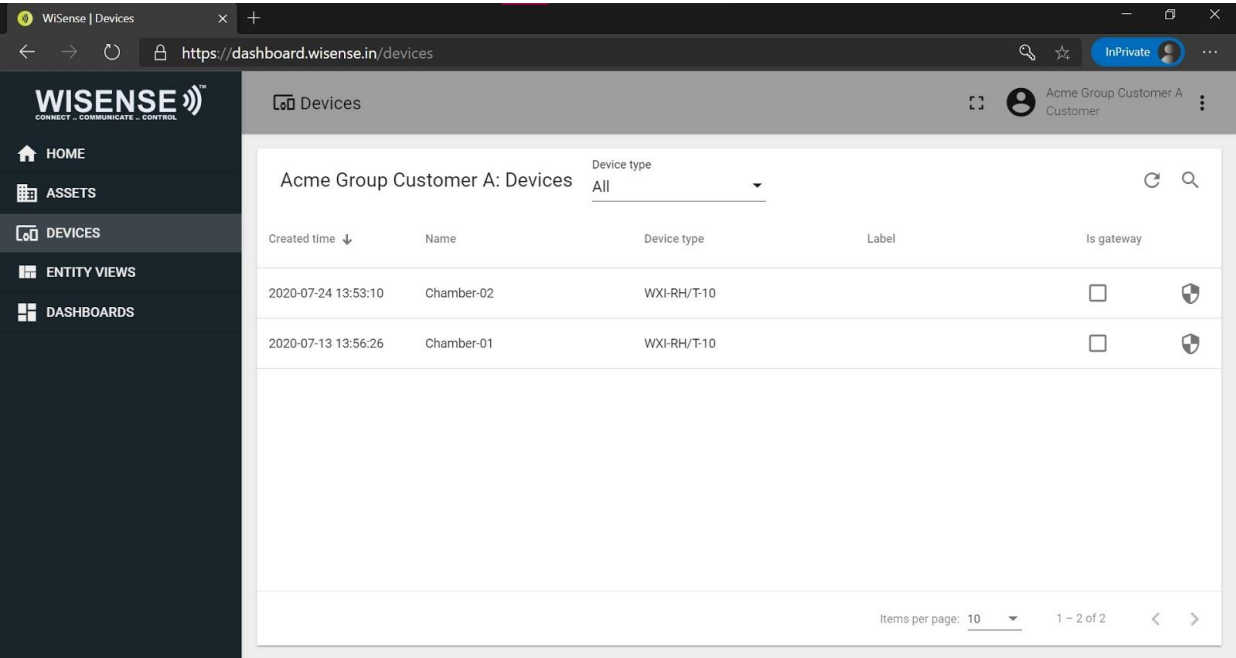


Fig 05- WiSense dashboard - List of devices page.

III. Dashboard page

The visualizations include Time-series graphs, time-series tables, data update time, alarm views, alarm/alerts threshold cards, etc.

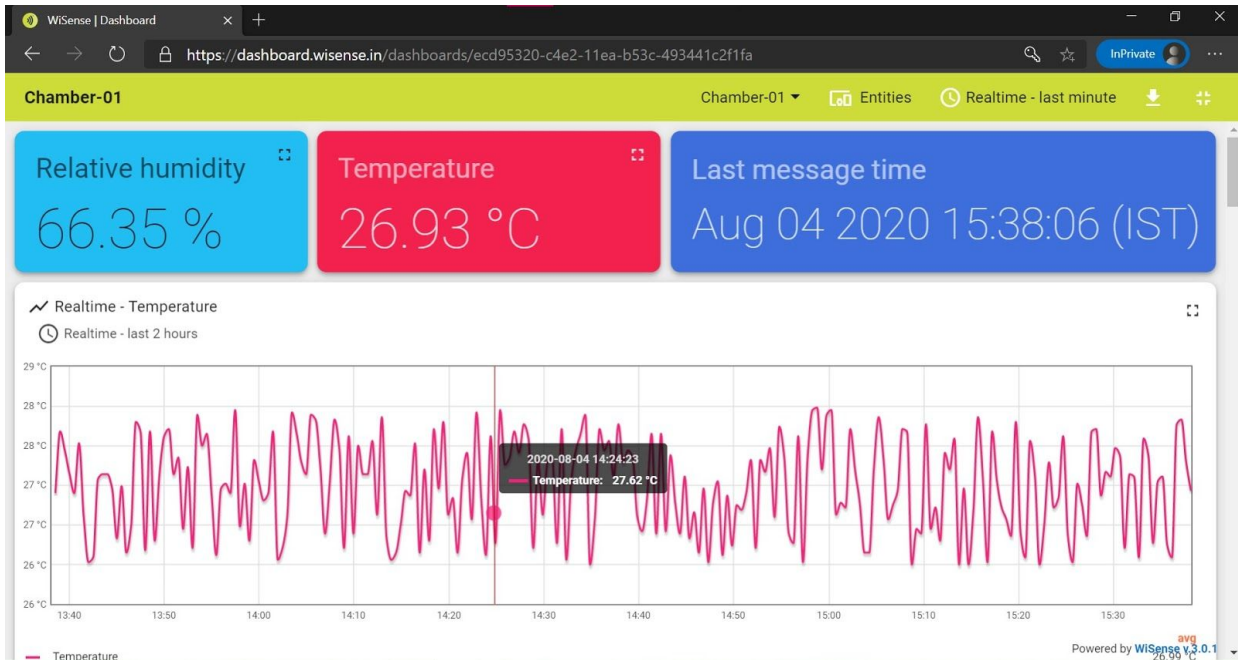


Fig 03- WiSense dashboard page - Time Series Plot (Full-screen mode).

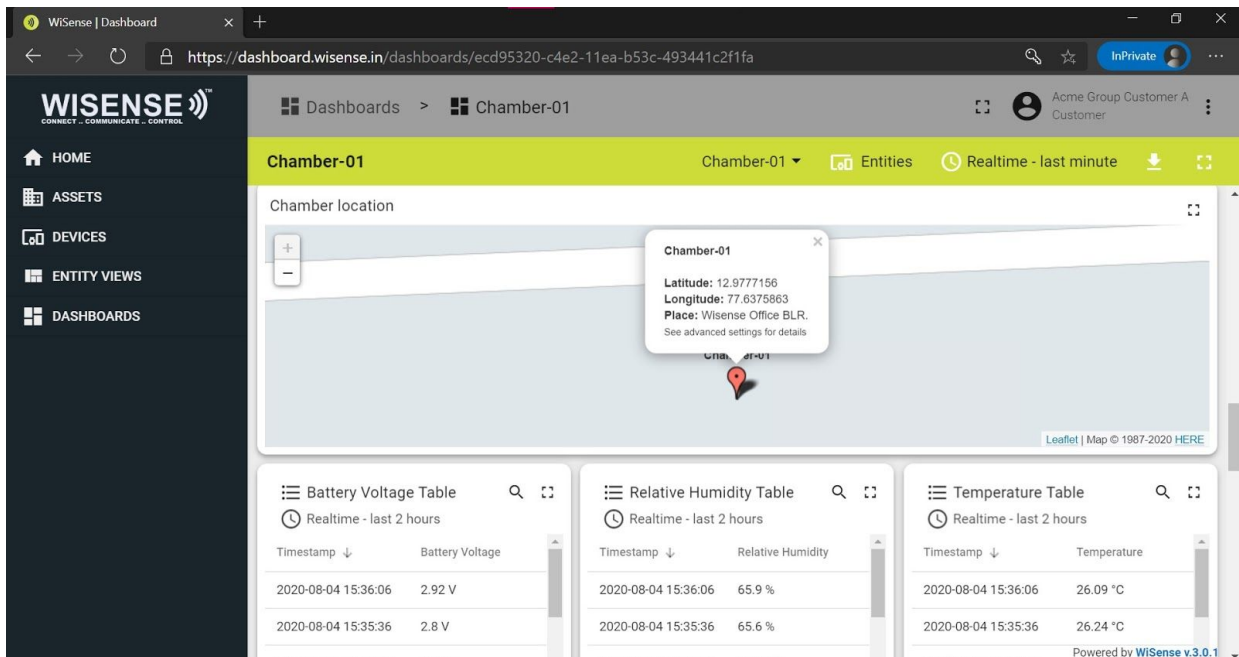


Fig 04- WiSense dashboard page - Map location and realtime table.

.IV. Alerts/Alarms generation:

The dashboard can create alarms based on the previously set threshold values in the “**Alert Threshold**” card. Alarm generation can trigger SMS and Email alerts as well.

The threshold is configured for each device. There will be a configurable hysteresis level also (A redefined safe level after an alert is generated) which the device should re-attain in order to clear the active alarms. This value will be slightly less than the actual threshold for upper-threshold alarms, and a slightly higher value for lower -threshold alarms.

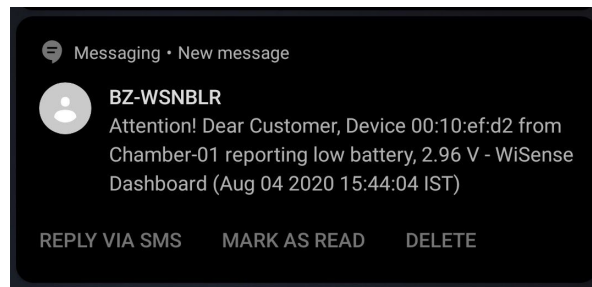


Fig 06- WiSense dashboard - Sample SMS alert.

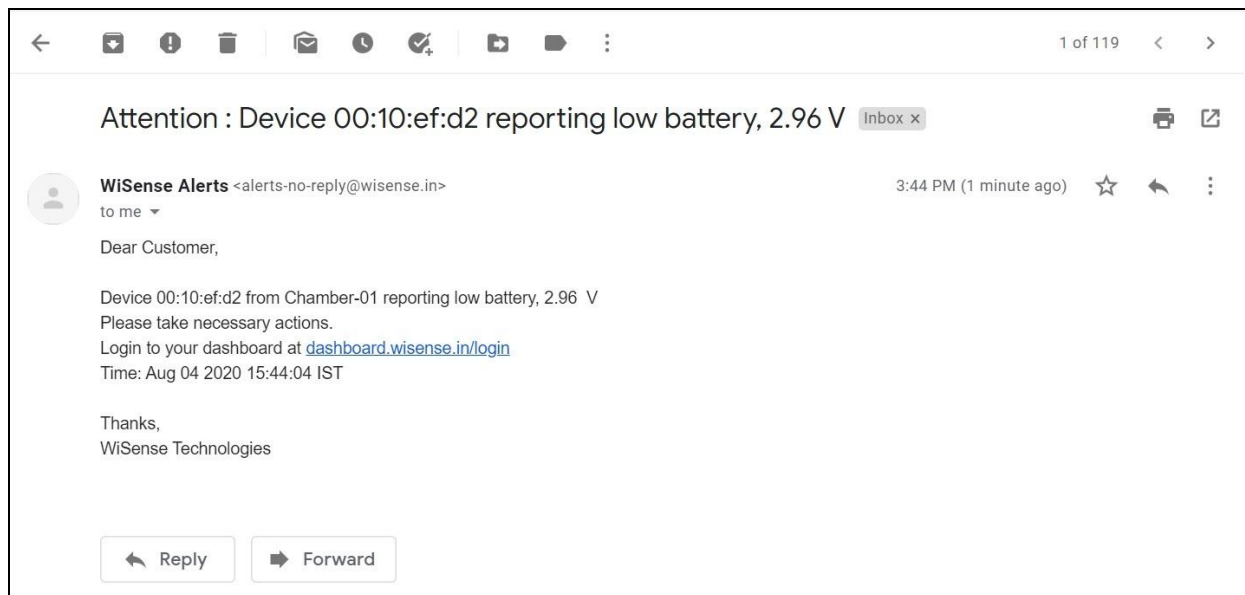


Fig 07- WiSense dashboard - Sample email alert.

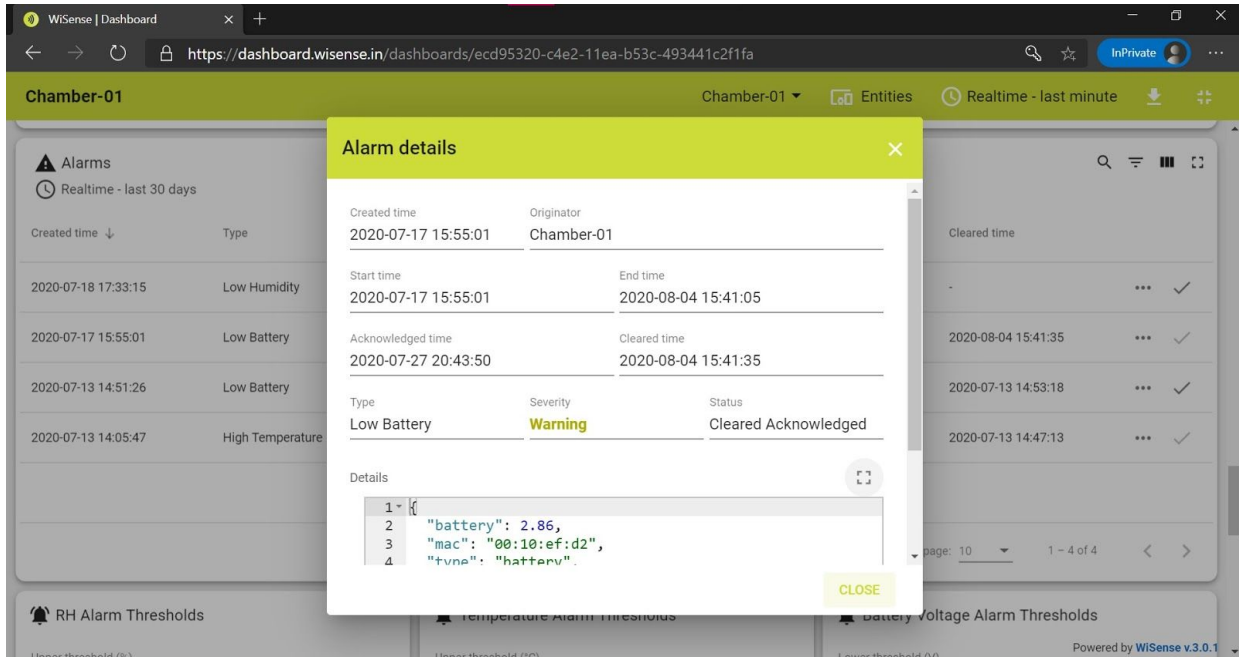


Fig 08- WiSense dashboard page - Alarm details pop-up card and alarm table in the background. (History, status, and span of alarms are displayed here. Users can also acknowledge and track the alarms.)

Acknowledging alarms will help the user to keep a trace on alarms when the table starts getting more alarm data.

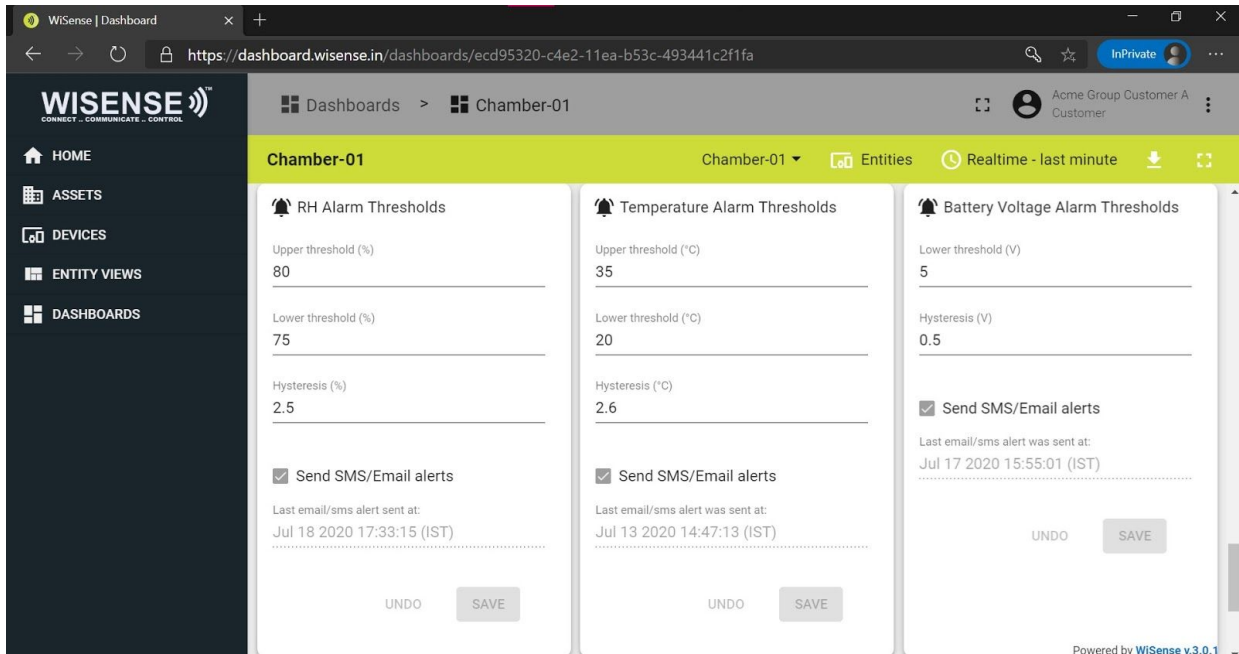


Fig 09- WiSense dashboard page - Alarm threshold settings.

V. Mobile view

The same dashboard experience can be achieved on mobile devices also. Portal is mobile optimized and pages are rendered based on display resolution.

Below screenshots will demonstrate how mobile view looks:

