



**3Tech Corporate Limited**

**Headquarter**

Room 09, 12/F, Tower B, Hunghom Commercial Centre,  
37 Ma Tau Wai Road, Hung Hom, Kowloon, Hong Kong.

**Branch Office**

Unit 904, 9/F, Fu Hang Industrial Building, 1 Hok Yuen Street East,  
Hung Hom, Kowloon, Hong Kong.

Tel: +852 2766 9787 Fax: +852 2766 9774  
Email: info@3tech.net

3T/210527-V3



[www.3tech.net](http://www.3tech.net)

# OwlEye

Smart Control and Monitoring System

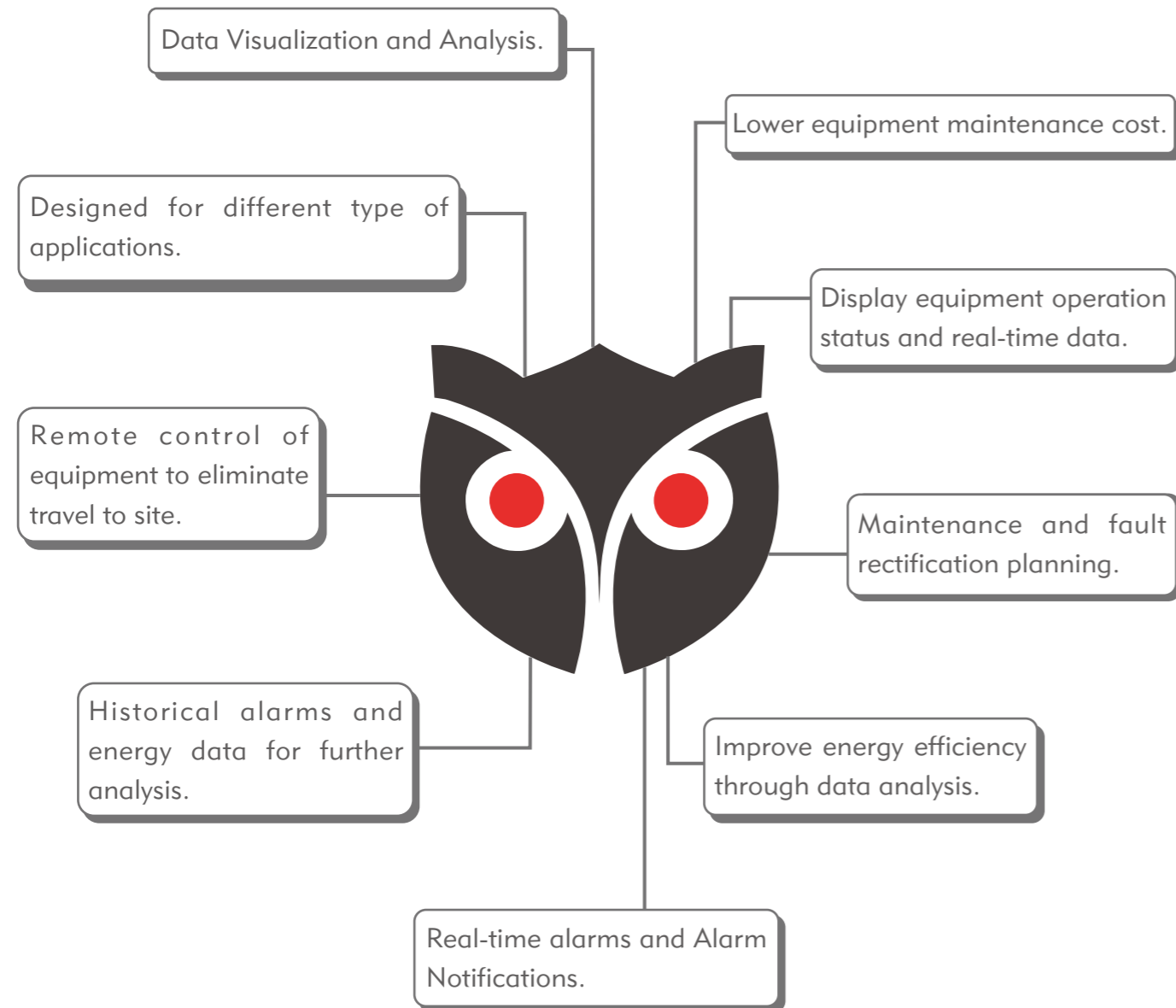
**Power • People**



# Introduction

OwlEye Smart Control and Monitoring System is developed by 3Tech for monitoring and control of energy storage and equipment at remote telecom sites, data center as well as any facility in which multiple energy sources are available. It is capable of monitoring and controlling most of the common infrastructure devices including diesel generator sets, rectifiers, solar panels, precision air conditioner, batteries, access control etc. The system reduces significantly time and efforts of users in managing the equipment, lowers operating cost, and reduces energy consumption. It also minimizes the consequence of equipment failure through alarm notification by Emails and SMS.

# Benefits with OwlEye



# OwlEye Energy Management



The OwlEye system records, calculates and displays data of energy generation from various sources and consumption through pie chart, line graph and actual values. These tools allow users to better understand the energy system characteristic, manage the various energy ratio and help to improve the overall energy efficiency.

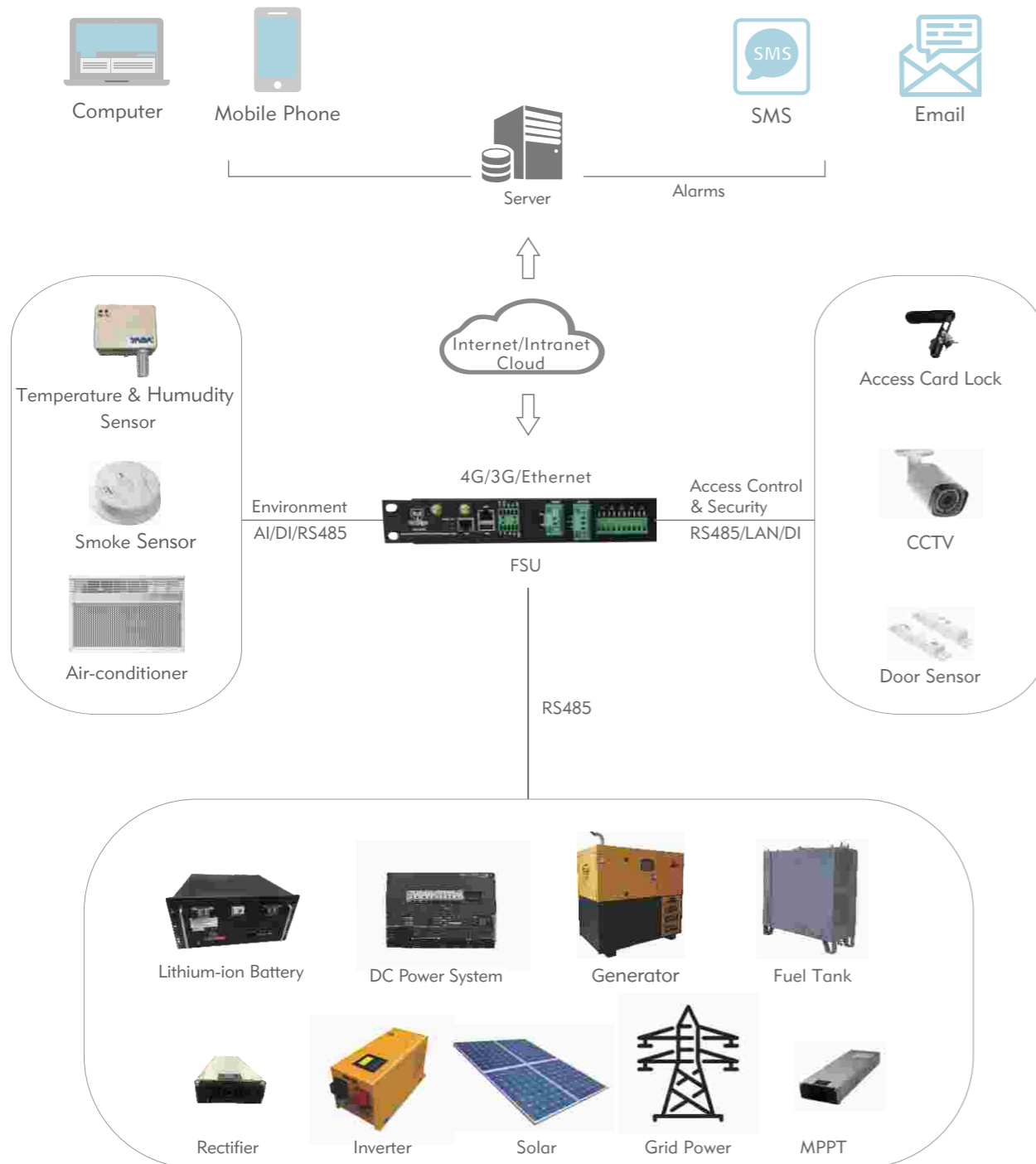
- Cost Saving
- Lower Equipment Fault
- Eco-friendly
- Detect Power Quality Problems
- Reduce Energy Waste
- Control Power Supply
- Energy Generation and Consumption Reporting

# System Reliability

OwlEye software platform can monitor equipment health status and determine the maintenance schedule to increase the system reliability. The software will send reminder for scheduled maintenance.



## OwlEye Smart Control and Monitoring System



Our OwlEye FSU supports multiple interfaces like RS232, RS485, AI, DI as well as DO.

# Functions and Features List

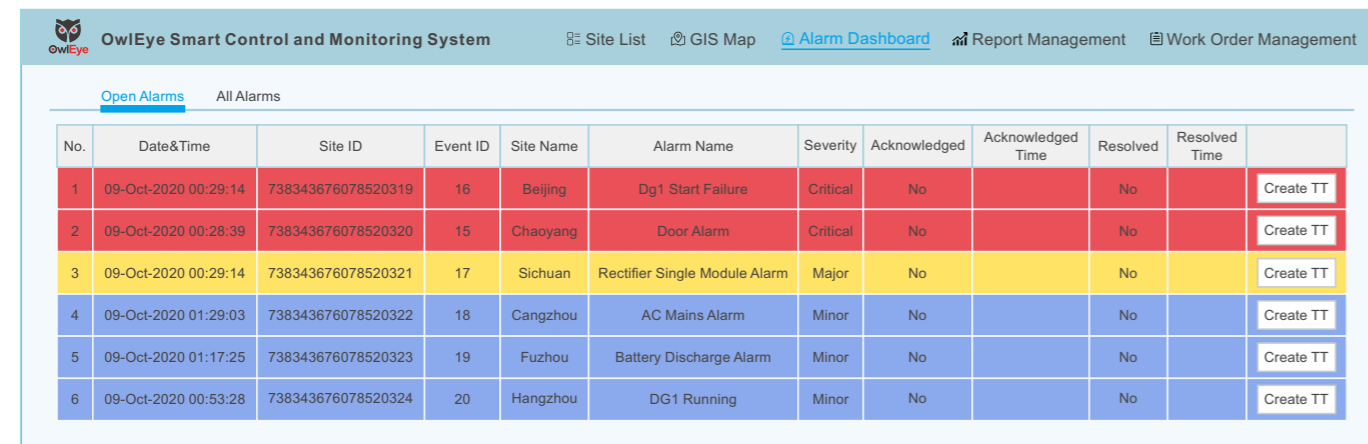
Items	OwlEye Functions and Features / Specifications
Deployment Solution	Support both 'On Cloud Solution' (Amazon) and 'On Premises Solution'
Networking	4G, 3G, Ethernet
Alarm Management	Alarm Rules Setting, Alarm Rules Batch Copy, Alarm Auto Clearance, Alarm Auto Refresh, Alarms Acquisition and Display, Alarm Notifications, Alarms Query and Classifications, Masked Alarms, Alarm Statistics
Real-time Monitoring	Equipment real-time parameters monitoring, GIS Map Site Location, Site Updating Status, Equipment Operation Status, Energy Flow, Site Overview
System Security and User Management	Login Account and Passwords, Remote Control Passwords, Account Levels (Standard Users and Admin), Accounts Management, Online Users Session Monitoring, Able to Kick Out Suspected Illegal Users
Company Management	Create and Manage Company Information in the Projects
Device Management	<ol style="list-style-type: none"> <li>1. AC Generator</li> <li>2. DC Generator</li> <li>3. Lithium-ion Battery</li> <li>4. Air Conditioner</li> <li>5. Heat Exchanger</li> <li>6. DC Split Air Conditioner</li> <li>7. Lock</li> <li>8. Solar Cleaning Robot</li> <li>9. ATS, Three Phase Energy Meter, Inverter</li> <li>10. Infrared Devices, Temperature and Humidity Sensors</li> <li>11. Fuel Level Sensors</li> <li>12. DI (Smoke Sensor, Door Sensor, Water Sensor)</li> <li>13. Camera</li> </ol>
Energy Management	Equipment Energy Acquisition and Analysis for Today, Past 7 Days, Past 30 Days
Sites Management	Multiple Sites Management with Flexible User Defined Parameters Setting
Assets Create and Management	Create and Manage Multiple Assets
Site Configuration	Site Configuration Information Batch Copy
Report Management	<ol style="list-style-type: none"> <li>1. Daily, Weekly and Monthly Reports</li> <li>2. Customized Reports</li> <li>3. Report Export and Download (CSV, Excel and PDF)</li> <li>4. Historical Data Acquisition and Query and Analysis</li> <li>5. Regular Reports Generation</li> <li>6. Report Subscription</li> </ol>
Backup Management	Database Backup/Restore Solution
Work Order Management	<ol style="list-style-type: none"> <li>1. Trouble Ticket</li> <li>2. Generator Maintenance</li> <li>3. Preventive Maintenance</li> <li>4. Knowledge Base</li> <li>5. Trouble Tickets Statistics</li> </ol>
Log Management	<ol style="list-style-type: none"> <li>1. Equipment Operation Logs</li> <li>2. System Logs</li> <li>3. Security Logs</li> </ol>

# Functions and Features

## Alarm Management

By sending notifications via E-mail and/or SMS, the platform alerts users to any alarm, fault or status change in real time. Maintenance and support team can take action accordingly. The platform supports flexible user-defined alarm rules and four level of severity in the Administration Console.

- Alarm Auto Clearance
- Masked Alarms
- Four Level of Alarm Severity
- Alarm Comments for Interactive Communication
- Historical Alarms Export
- Historical Alarms Query
- Email and SMS Notification
- Alarm Statistics

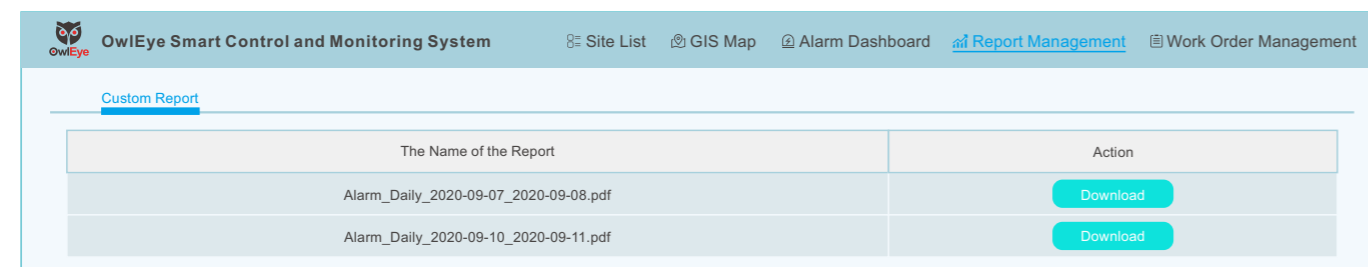


No.	Date&Time	Site ID	Event ID	Site Name	Alarm Name	Severity	Acknowledged	Acknowledged Time	Resolved	Resolved Time	
1	09-Oct-2020 00:29:14	738343676078520319	16	Beijing	Dg1 Start Failure	Critical	No		No		Create TT
2	09-Oct-2020 00:28:39	738343676078520320	15	Chaoyang	Door Alarm	Critical	No		No		Create TT
3	09-Oct-2020 00:29:14	738343676078520321	17	Sichuan	Rectifier Single Module Alarm	Major	No		No		Create TT
4	09-Oct-2020 01:29:03	738343676078520322	18	Cangzhou	AC Mains Alarm	Minor	No		No		Create TT
5	09-Oct-2020 01:17:25	738343676078520323	19	Fuzhou	Battery Discharge Alarm	Minor	No		No		Create TT
6	09-Oct-2020 00:53:28	738343676078520324	20	Hangzhou	DG1 Running	Minor	No		No		Create TT

## Report Management

The report management gathers data and valuable information in report format for further analysis and study. Both Standard Reports and Custom Reports are available. Individual user can customize their own reports which allows them to review the required information quickly and efficiently. Its benefits include but not limited to the below:

- Report Customization
- Generate Daily, Weekly, and Monthly Reports
- Report Export format including CSV, XLSX, PDF
- Report Subscription
- Multiple reports including energy consumption and generation summary, alarm statistics, integrated reports, environmental reports, battery usage and status reports and many more others



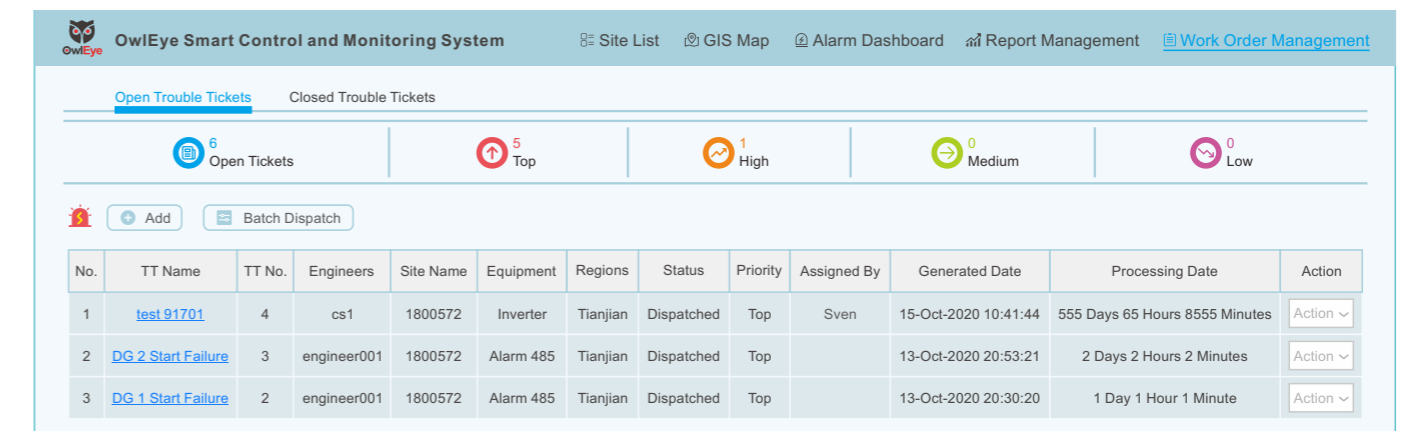
The Name of the Report	Action
Alarm_Daily_2020-09-07_2020-09-08.pdf	Download
Alarm_Daily_2020-09-10_2020-09-11.pdf	Download

# Functions and Features

## Work Order Management

The OwlEye work order management allows administrator to issue trouble tickets and to assign work orders to field engineers/technicians. Field staffs will feed back to the administrator after site rectification work. The work order management system also offers statistic information in the pie chart, line chart which allows administrator to analyze the trouble tickets and work orders accordingly.

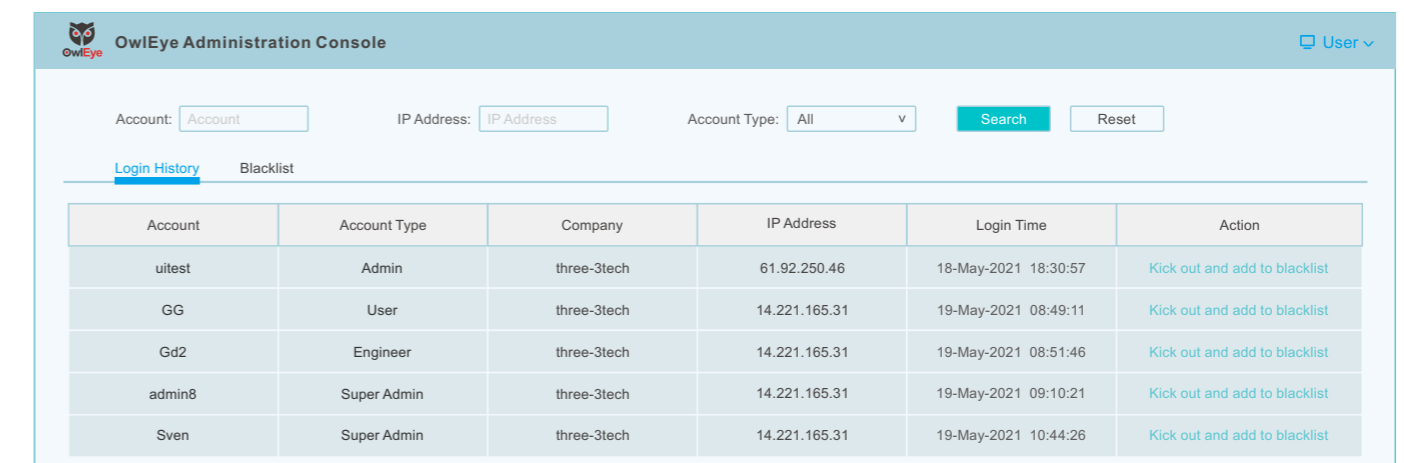
- Auto create Trouble Tickets
- Trouble Tickets status tracking
- Dispatch and quick response reminder
- Engineers schedule availability
- Knowledge Base of solutions for frequent happening issues
- Data Statistics
- E-mail Notifications



No.	TT Name	TT No.	Engineers	Site Name	Equipment	Regions	Status	Priority	Assigned By	Generated Date	Processing Date	Action
1	test 91701	4	cs1	1800572	Inverter	Tianjian	Dispatched	Top	Sven	15-Oct-2020 10:41:44	555 Days 65 Hours 8555 Minutes	Action
2	DG 2 Start Failure	3	engineer001	1800572	Alarm 485	Tianjian	Dispatched	Top		13-Oct-2020 20:53:21	2 Days 2 Hours 2 Minutes	Action
3	DG 1 Start Failure	2	engineer001	1800572	Alarm 485	Tianjian	Dispatched	Top		13-Oct-2020 20:30:20	1 Day 1 Hour 1 Minute	Action

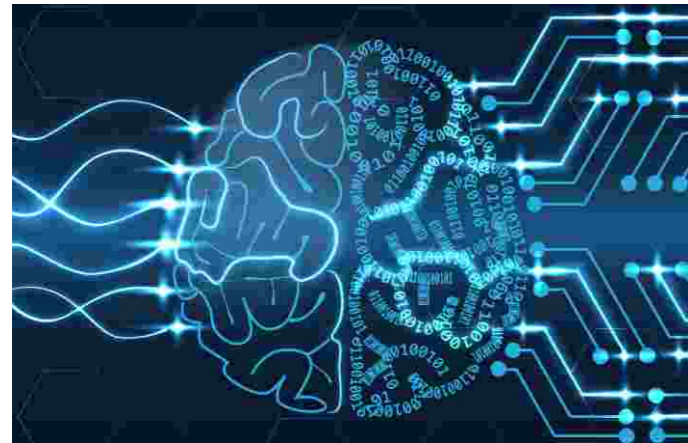
## System Security Management

The system provides on-line users monitoring, making statistics on the number of on-line users and recording their login time. Besides Administrator is able to remove the suspected users out of the system to increase the system security.

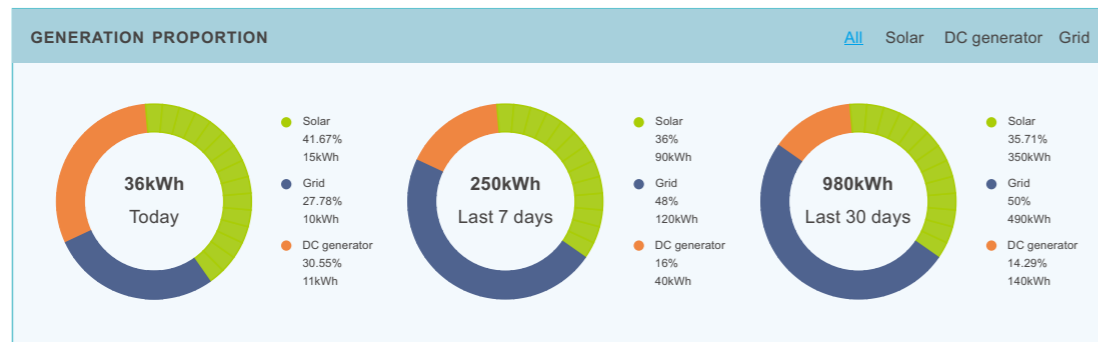


Account	Account Type	Company	IP Address	Login Time	Action
uitest	Admin	three-3tech	61.92.250.46	18-May-2021 18:30:57	Kick out and add to blacklist
GG	User	three-3tech	14.221.165.31	19-May-2021 08:49:11	Kick out and add to blacklist
Gd2	Engineer	three-3tech	14.221.165.31	19-May-2021 08:51:46	Kick out and add to blacklist
admin8	Super Admin	three-3tech	14.221.165.31	19-May-2021 09:10:21	Kick out and add to blacklist
Sven	Super Admin	three-3tech	14.221.165.31	19-May-2021 10:44:26	Kick out and add to blacklist

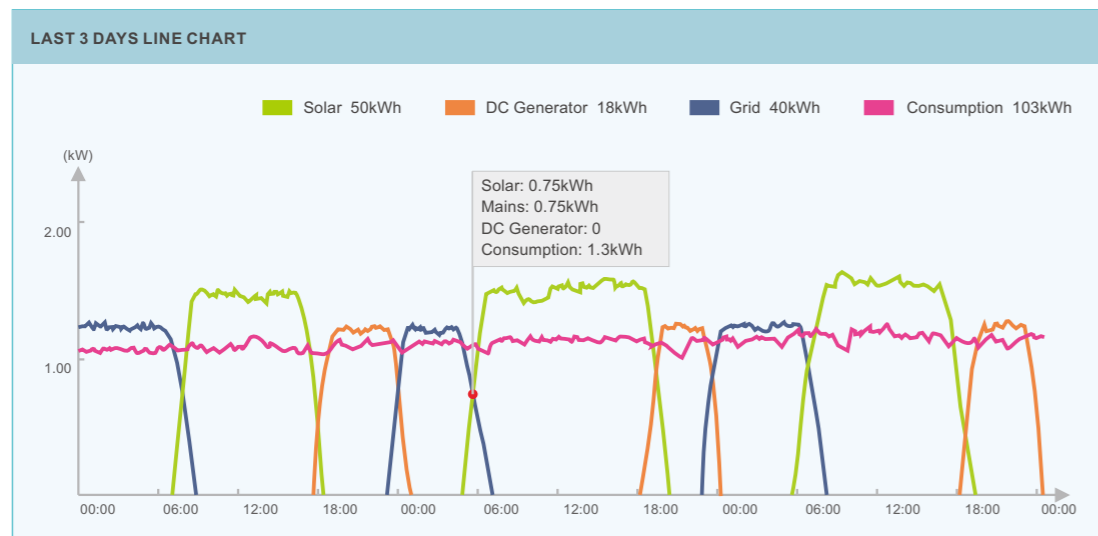
# Future of OwlEye



Big Data and Artificial Intelligence technologies open up many possibilities by using data collected by the OwlEye system. By capturing and analyzing data from various sources, AI is able to find relationship between random data and obtain valuable information for work and development planning. Such technology is able to predict fault and allow preventive action to be planned before actual occurrence.



When it is applied in the OwlEye Server, users can perform predictive analysis down to a single fault of a piece of equipment. The system can then evaluate the potential risk and consequence for necessary action planning. Proactive maintenance can be scheduled to improve the overall system reliability, minimize down time, improve energy efficiency as well as lower the operating cost.



# Project Case



## Algérie Télécom Mobilis (Algeria)

- 700 Sites Monitoring with On Premises Solution
- DG + VRLA Battery + Solar + Grid
- Remote Start/Stop Generators
- Remote Modify Parameters
- Remote Open Locks
- Alarm Notifications by Email and SMS
- Work Order



## Algérie Télécom (Algeria)

- 30 Sites Monitoring with On Premises Solution
- DG + VRLA Battery + Solar
- Remote Start/Stop Generators

## SkyRay - Middle East Country

- 110 Sites Monitoring with On Premises Solution
- Grid + DG + Lithium-ion Battery
- Remote Start/Stop Generators
- Remote Open Locks

