

BirSens

Environment Monitoring Systems

2020
1st Edition



B1R TECH
T E C H N O L O G Y



ABOUT US

We, as BirTech Technology have had 30 years' experience in the Electronic and Information Technologies sector. We have been working on R&D and product development for 20 years on spot checking and remote monitoring of physical, circumferential and electrical ambient conditions of any kind of corporate valuable environment.

We have been offering a wide range of ready-made solutions in different configurations and models under the brands BirSens as hardware and Sensaway as software. We have been constantly trying to produce new solutions by using also developing technologies, in line with the demands of our customers and we continue our R&D activities in this direction.

We have been producing service and solutions at every stage with our fast and reliable after sales support starting from the pre-sales needs analysis to our customers, commissioning of the most appropriate solution in terms of requirements and cost, optimization of them, and providing efficient usage training.

Our primary mission is to meet requirements of our current customers by working with our solution partners in a trust-oriented manner and our vision is to reach new solution partners and customers.

QUALITY CERTIFICATES



LOCATIONS

Evliya Çelebi Mh. Ak İş Merkezi No: 58 / 7-8
TUZLA - İSTANBUL

M.Kemal Mh. Tepe Prime İş Merk. C Blok No: 39
ÇANKAYA - ANKARA

Adalet Mh. Manas Bulvarı Folkart Towers B Kule K: 31
BAYRAKLI - İZMİR

Kurtuluş Mh. Yargı Sk. No: 12 / 2
ODUNPAZARI - ESKİŞEHİR



Unlimited Location



Unlimited User



Hierarchical Authorization and Monitoring Management



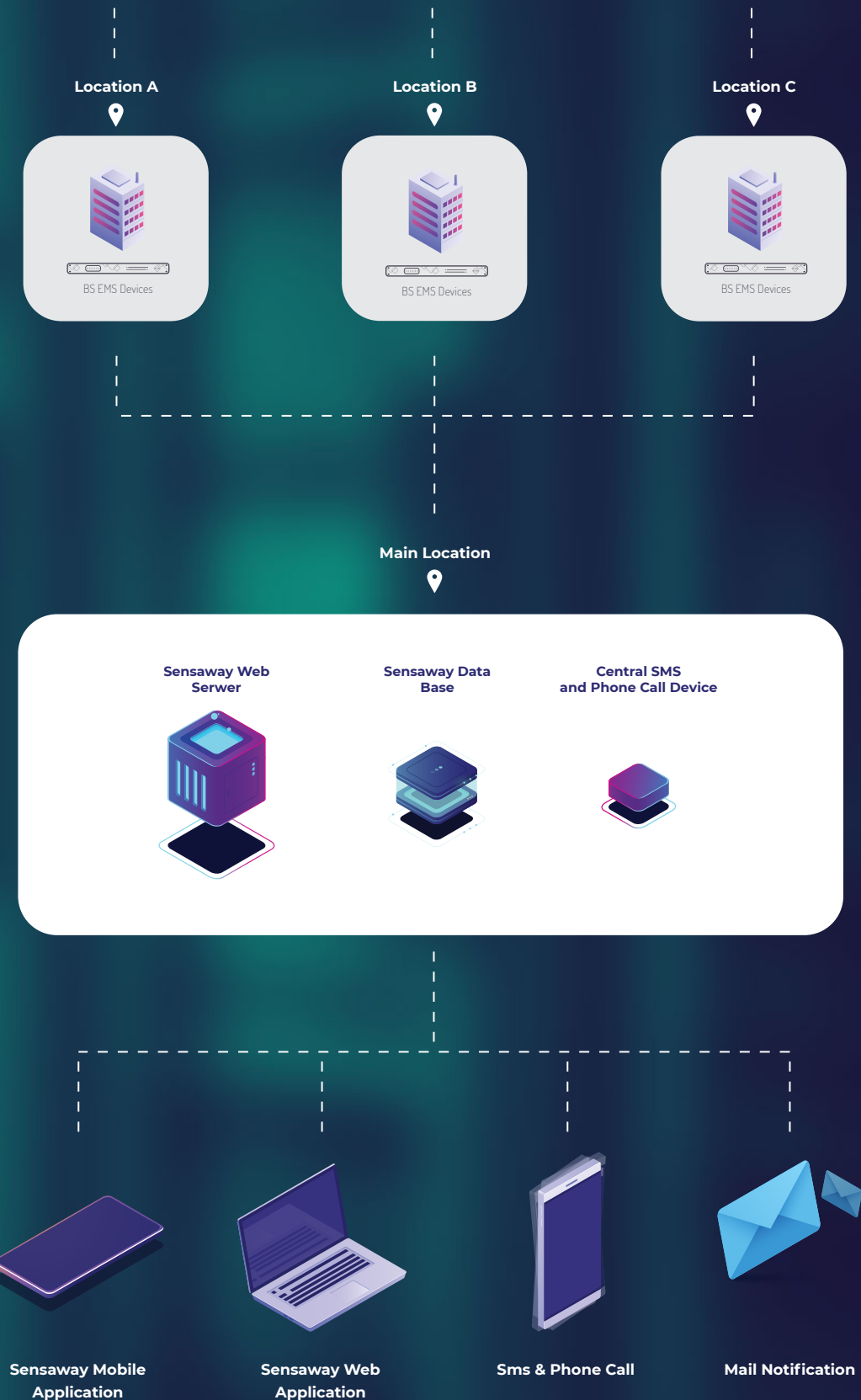
Monitoring All Data on One Platform



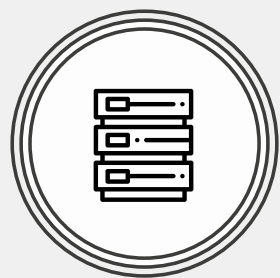
Extensible Database Performance

BirSens System Architecture

Temperature, Humidity, Air Quality, Smoke, Water Leak, Voltage, Frequency, Ground Neutral Voltage, Visual Movement Detection, Current / Power / Analyzer Tracking, Connection Status, UPS Battery Level, Air Conditioner, PDU, Door Open / Close Status, Biometric Access Device.



Application Fields



Data Center

You may access solutions in different models and configurations that suit your needs that vary according to room size, pursuant to the ISO 27001 standards

You may be aware of abnormalities and alarm conditions immediately by defining the Climatic Environmental & Energetic environment parameters among the threshold values you want.



Technical Service Rooms

Different solutions can be created in order to monitor the environmental conditions of the panels, UPS, generator, transformer, ADP type rooms that are valuable in terms of the systems and devices they host, and to be informed promptly in case of any undesirable situations.



Hen House / Green House

Different solutions can be created in which the conditions of environments, where live animals are raised or produced and where experimental animals are housed, can be monitored through multi-point sensors.

Solutions can be created for plant-flower growers in greenhouse-type indoor environments that they can monitor climatic and environmental conditions instantly.



Storehouse / Office

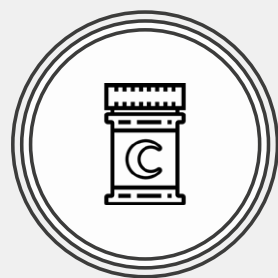
Rapid solutions can be created that will be aware of instant monitoring and other conditions towards climatic and environmental conditions of large or medium-sized storage areas.

It offers different solutions for office environments, where climatic and environmental conditions can be monitored and managed in different scenarios according to the office hours / end of office hours.



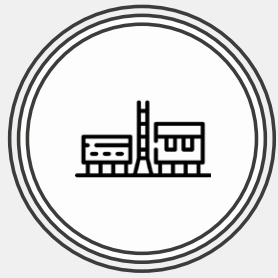
Archive Rooms

Rapid solutions can be created that will be aware of instant monitoring and other conditions towards climatic and environmental conditions of all Archive sites.



Cold Chain / Medicine Cabinets

Local and central solutions can be created in accordance with the regulations appropriate to the drug and food storage conditions, within the scope of the cold chain determined by the Ministry of Health and the Ministry of Food, Agriculture and Livestock.



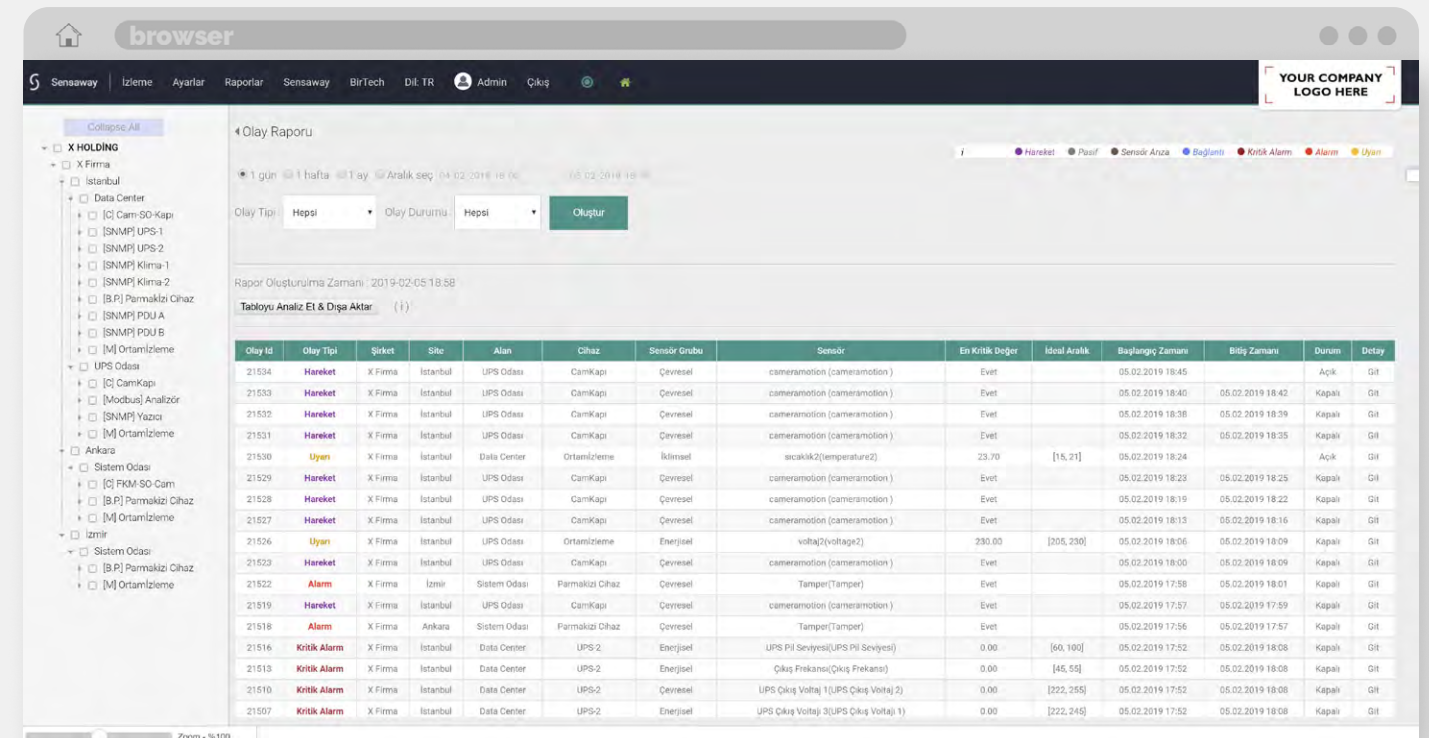
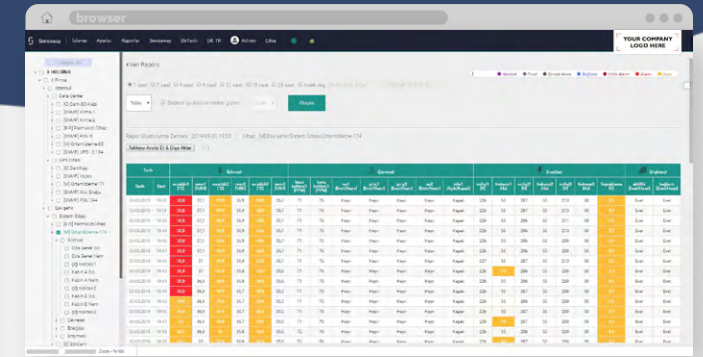
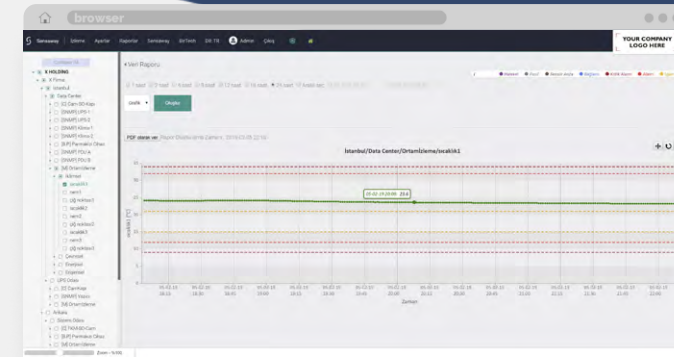
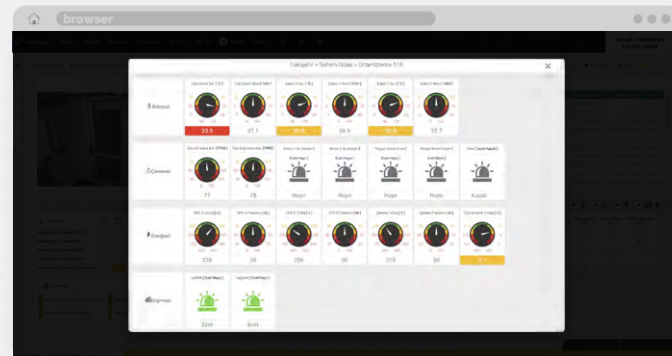
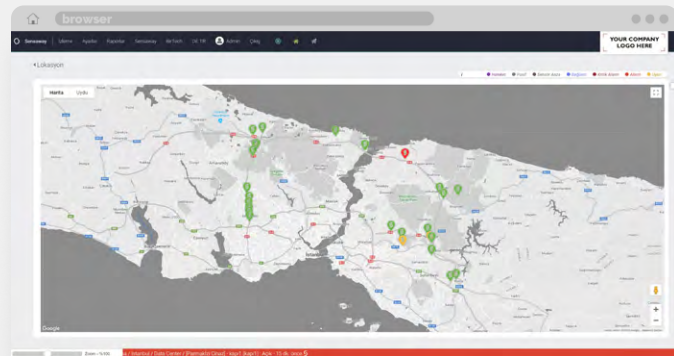
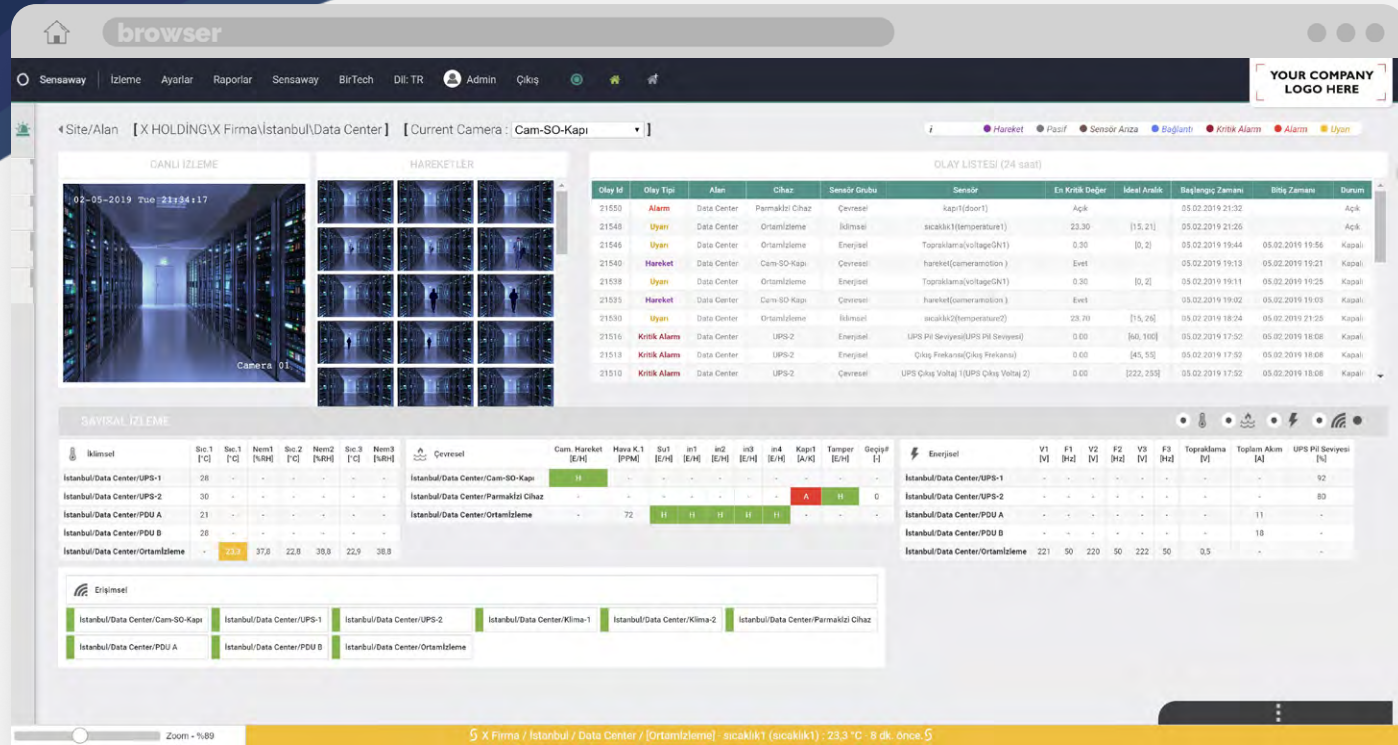
Base Station

Different solutions, which may monitor the environmental conditions of many base stations, branches or external environments according to requirements of the corporation, can be produced.



ATM

Different solutions, which may monitor the environmental conditions of ATM units in the central structure, can be produced environments according to requirements of the Bank.



What is Sensaway?

Sensaway environmental monitoring and management software is a web-based application, which was developed to create warnings and alarms by evaluating the measured data, to transmit these warnings and alarms to the authorities, to gather statistical information and to provide reporting of this information manually or automatically, by monitoring, providing management, reporting and auditing through BirSens environmental monitoring modules and appropriate IP camera modules.

It was developed by using .NET technologies and MS SQL database as it will be suitable for operation under MS Windows based operating systems.

It is open for improvement in terms of technological developments and issues required by our customers, and it is being developed constantly.

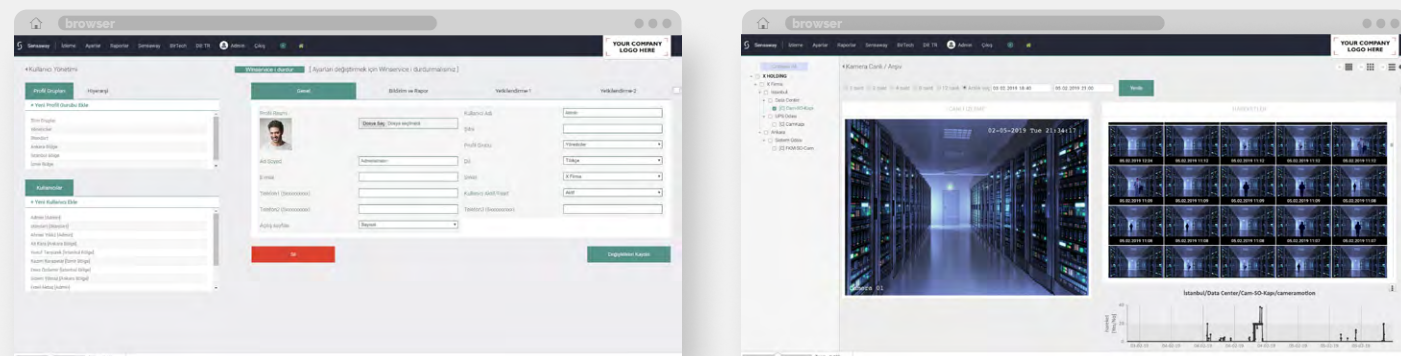
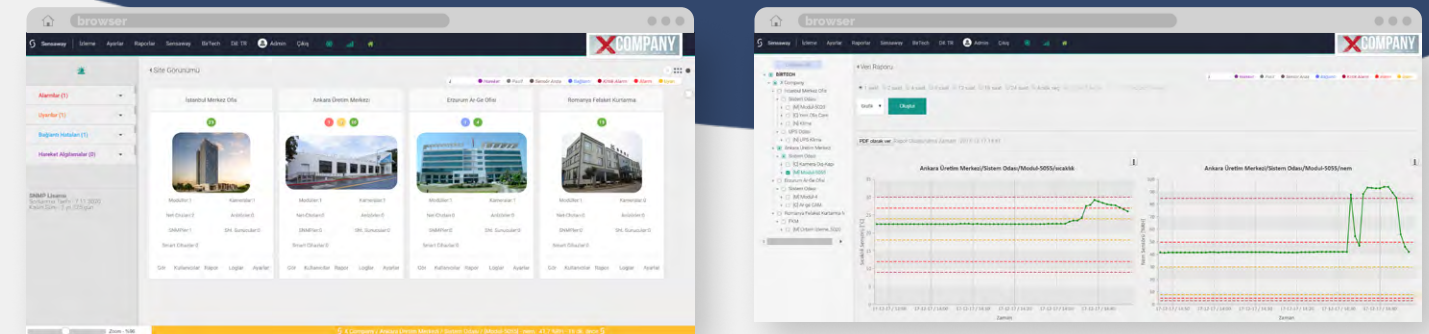
Sensaway Central Management Software

By determining the ideal conditions of your environments, you may

- Watch them on the web,
- Manage them centrally,
- Instantly check the environmental conditions,
- Get manual or automatic reports,
- Receive notifications by e-mail and SMS in unsolicited status

Reporting

- Creating of PDF, XLS, TXT or graphical reports between desired date-time,
- Sending of automatic reports to the desired users on a Daily - Weekly - Monthly basis,
- Sending of SMS and e-mails on a Daily or Weekly basis, in order to inform working of the system properly,
- Reporting of system logs,
- Receiving of delivery report of notifications transmitted to the users.



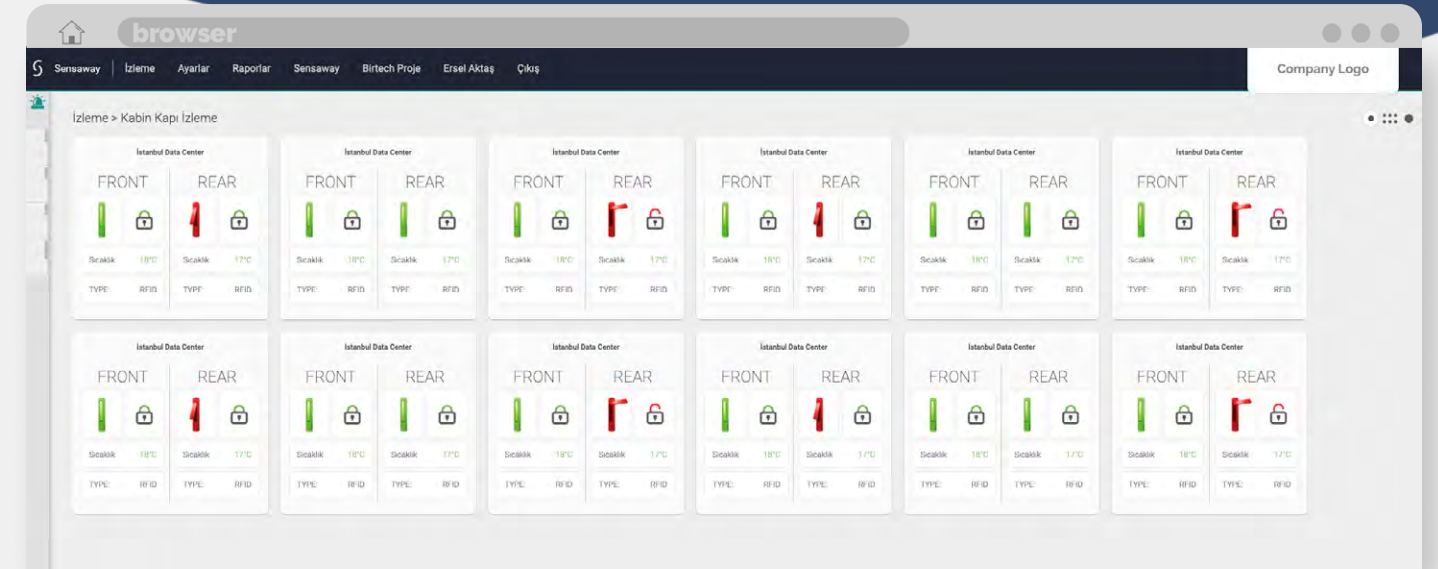
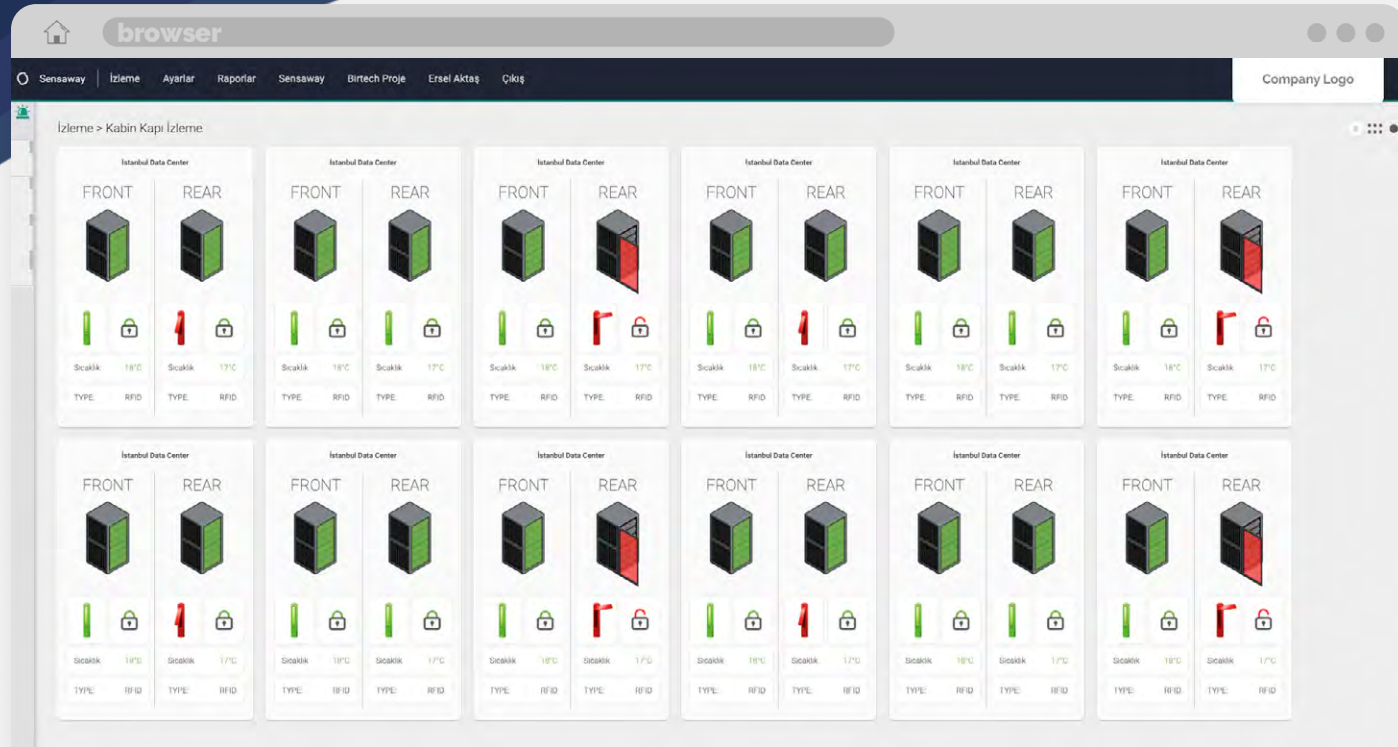
Meanings of Colors in Sensaway

Managerial Features

- Multi-location structure support,
- Unlimited number of modules, cameras and NetDenet Client support,
- Modules can be passivated temporarily,
- Central SMS and Call module or Web SMS application integration,
- Naming modules and sensors,
- Monitoring via Hierarchical structure and ease of management.

- Three different levels as Alert, Alarm and Critical Alarm,
- Creating of different notification options according to the alarm levels,
- Defining of different threshold values for different levels,
- Ready alarm rules defined in ISO 27001 standard,
- Communication of notifications to the authorities by e-mail, sms, phone.
- Notification of connection alarm for NetDenet Clients regarding inaccessible module, camera,
- Alarm notification for faulty or inaccessible sensors.
- Authorization of users as primary / secondary notification group.

- Receiving of optional notifications at any time via SMS / call during office hours – out of office hours, on weekdays and weekends,
- Creating of audible and visual warning with siren at critical alarm level,
- Setting of frequency to send notifications,
- Accessing to all events in the notification panel on the monitoring pages quickly,
- Notification option via sub-title,
- Receiving of notifications in different sounds according to the alarm level from the monitoring screens,
- E-mail transmission of the last detected motion pictures to the authorized users



Monitoring

- Central monitoring of all modules, cameras and NetDevice Clients existed in different locations.
- Monitoring of the devices with different colored icons for different alarm situations,
- Monitoring of screens in 6 different options,
- Monitoring of all measurement data on a single screen,
- 1/2/8/12/24 hour fast graphic supported analysis opportunity for all sensor values,
- Live monitoring with instant values,
- Monitoring of the status of all devices on a single screen,
- Tracking of all locations on the map with their real coordinates,
- Monitoring of data belongs to all sensors collectively on the digital screen.
- Monitoring of sensor data with the counter structure,
- Monitoring of climatic, environmental, environmental parameters under electrical and accessibility groups,
- Viewing and / or recording of the pictures captured by the camera image,
- Viewing of the pictures taken from perceived movements as small photo frames with their date and time information.
- Identifying of sites and areas belongs to related locations with their pictures,
- Hierarchical monitoring opportunity of the Company / Site / Area / Module structure



Cabinet Door and Lock Monitoring System

You can monitor separately the front and back doors, electronic locks and mechanical locks data and alarm conditions of the cabinets in your Data Center.

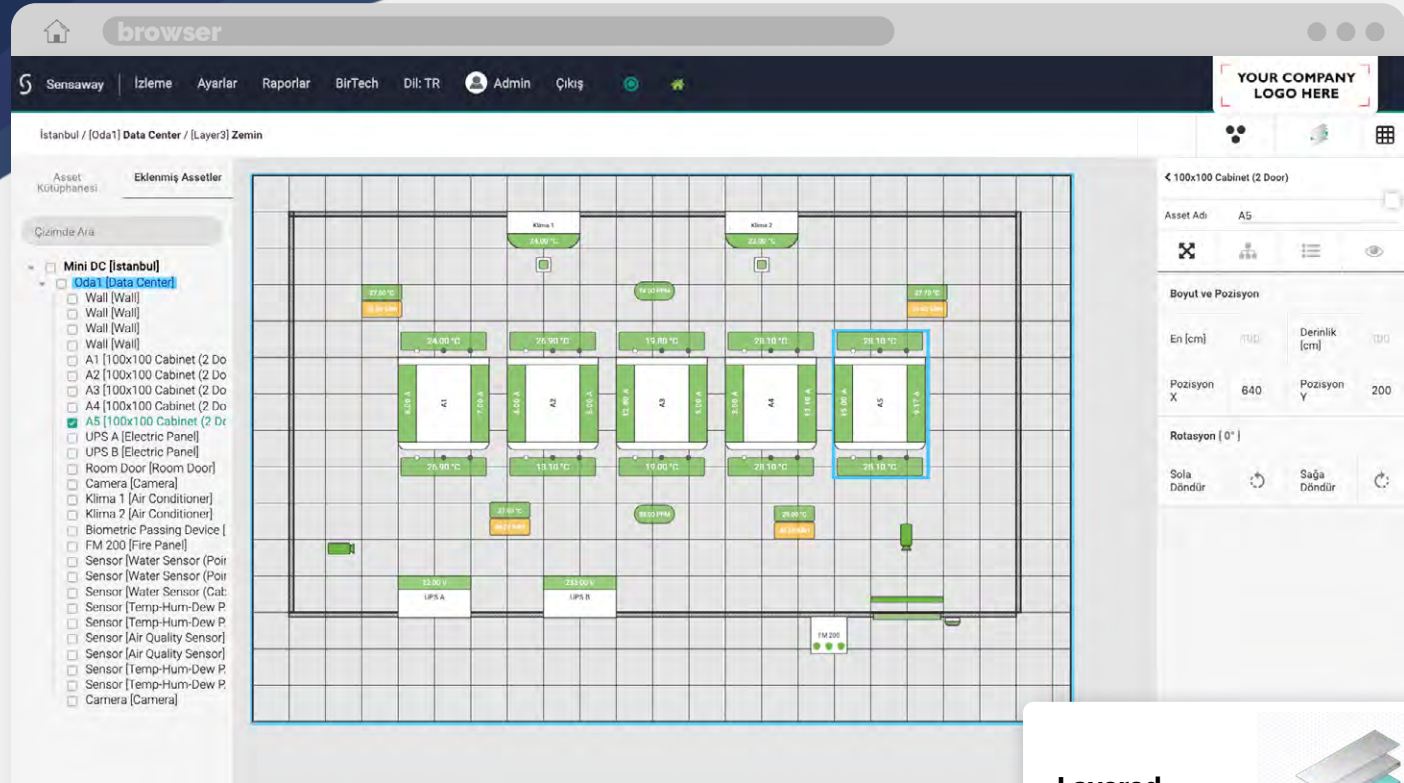
You can report when and by whom the cabin doors are opened and how long they remained open.

You can keep your cabinets under control in remote locations through Remote Unlocking and Temporary SMS Password systems,

Thanks to the easy identification screen, you can provide cabin-lock matches quickly.

Lock Options:

- Key Pad (front and rear door managed separately)
- Key Pad (front and rear door managed commonly)
- RFID Card (front and rear door managed separately)
- RFID Card (front and rear door managed commonly)
- Finger Print (front and rear door managed separately)
- Finger Print (front and rear door managed commonly)
- Palm Print (front and rear door managed separately)
- Palm Print (front and rear door managed commonly)



Layered Architecture



Layered Data Center Monitoring System

When you make 2D visualization in Datacenter and System rooms, you will have opportunity to monitor the sensor data at layer level by designing your environments on Sensaway in 4 different layers (Below Raised Floor, Above Ground, Below Lowered Ceiling, and Above Lowered Ceiling).

In Designs;

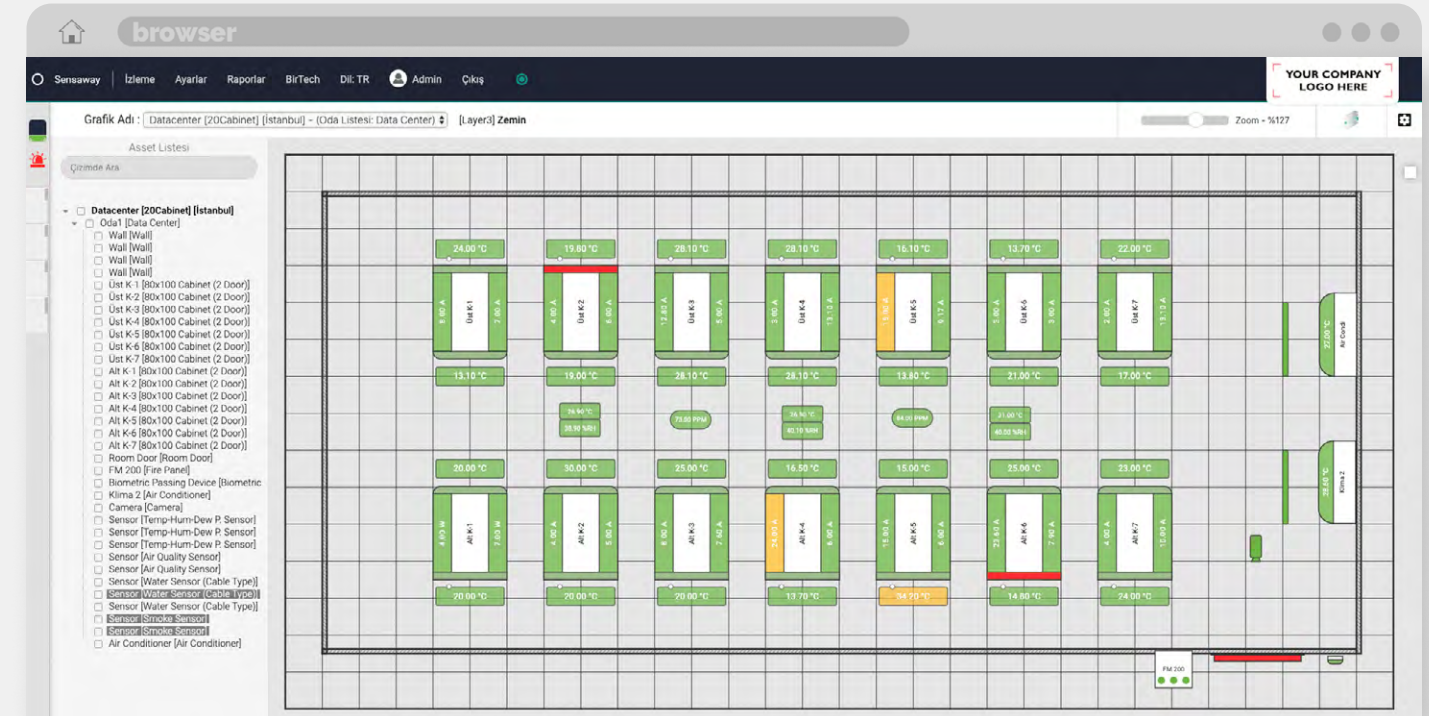
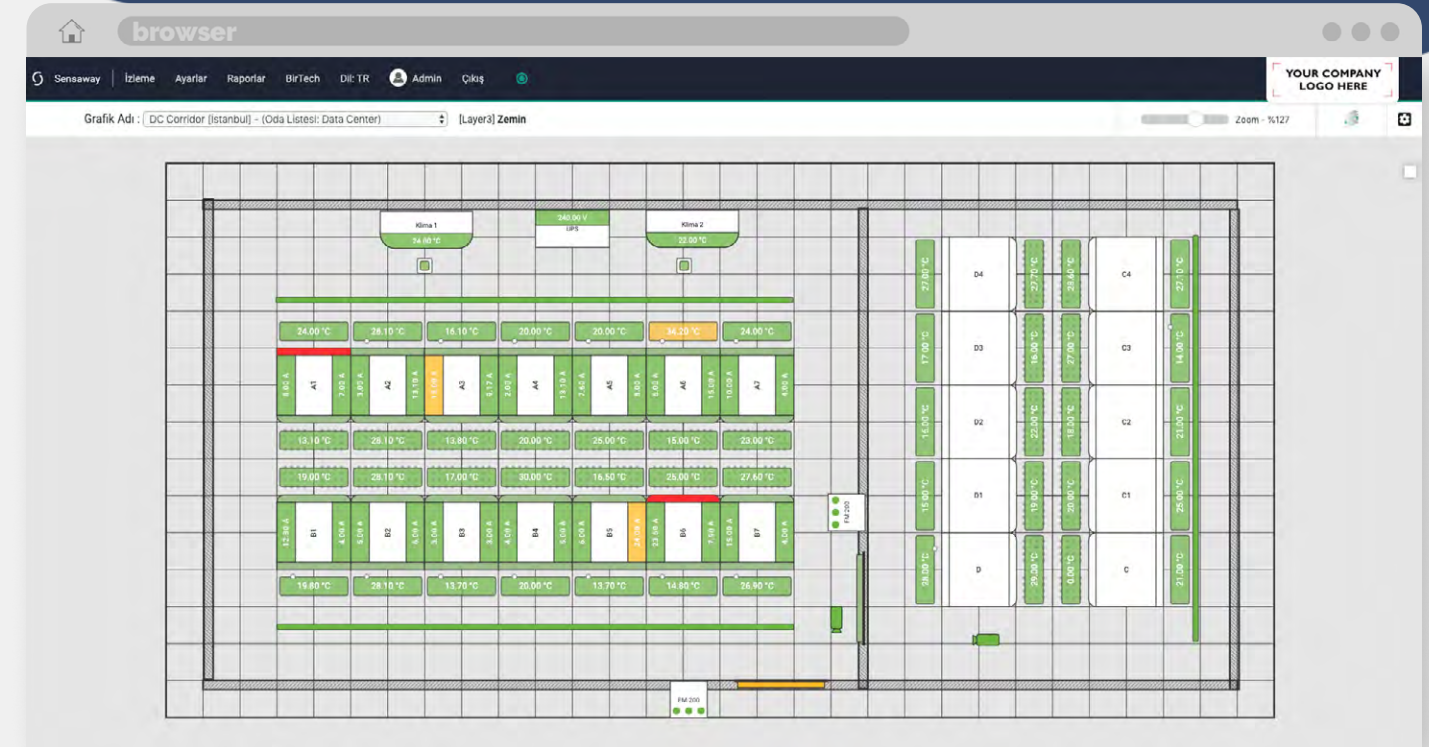
You can design the same room exactly as it is by specifying the dimensions (m2), information and tile dimensions of your rooms.

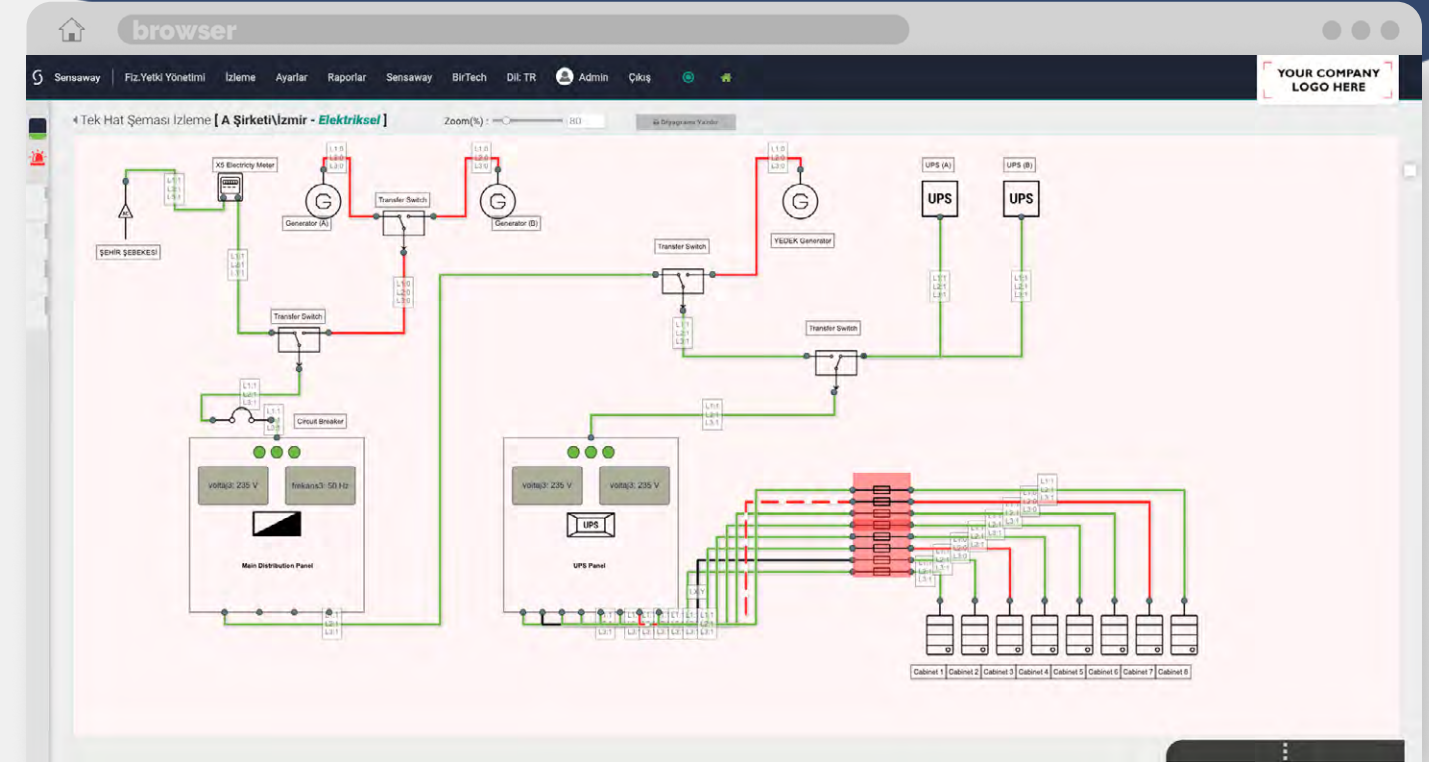
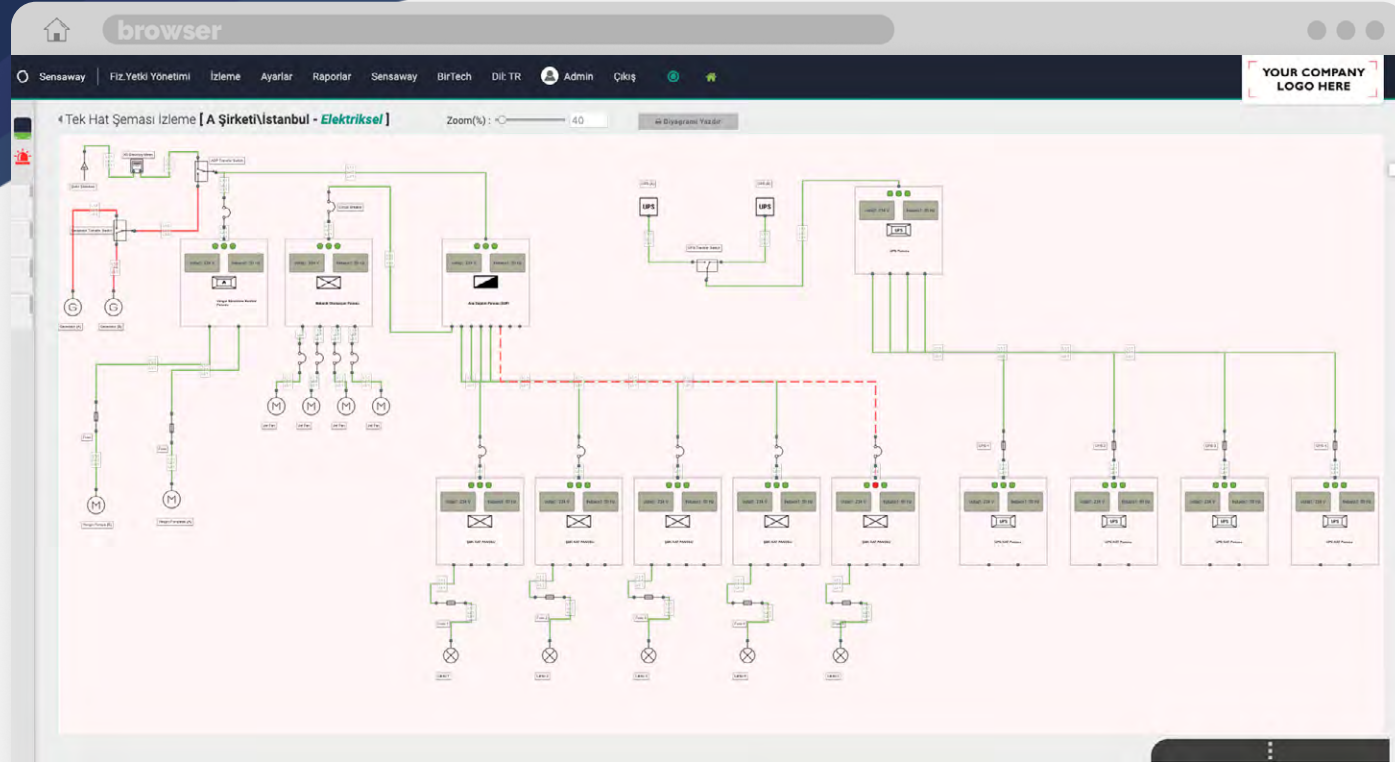
You can choose exactly the same size of cabinets you prefer from our library by dragging and dropping them into the desired location. You can go further details by giving special names to the cabinets. All kinds of details to be followed in the room have been taken into consideration.

- **Environment Monitoring sensors** (Temperature, Humidity, Air Quality, Water)
- **PDU** (Power Consumption, Total Current, Voltage, Frequency, ...)
- **UPS** (Voltage, Frequency, Current, ...)
- **Camera** (Instant Motion Status)
- **Access Control Device** (Door Open / Closed Status, Immediate Access)
- **Fire Panel** (Failure, Fire Alarm and Gas Discharge Alarms)

Thanks to its four-layered architecture, you may monitor sensor parameters located at that layer by choosing any layer, you wish.

In case of monitoring of the temperatures of the opposite cabinets in your system rooms having cold air corridor, it allows you to monitor the approximate temperature value in the corridor constantly by calculating it.





Energy Monitoring System with Single Line Scheme

At the present time, in terms of efficient use of the energy and covering and managing uninterrupted electricity requirements of the enterprises, continuous monitoring is important to follow the faults that will occur quickly and to notify the authorities quickly about the occurred fault.

Application Areas of the Energy monitoring and Single Line Scheme:

- Data Centers
- Hospitals
- Schools
- Tower Buildings
- Factories
- Small and Medium Sized Enterprises

In order to repair the breakdown in a timely manner, Sensaway Single Line Energy Monitoring Module monitors your systems continuously on the basis of 7/24 principle and by monitoring any occurred malfunction is transmitted to the authorities quickly to the authorities through

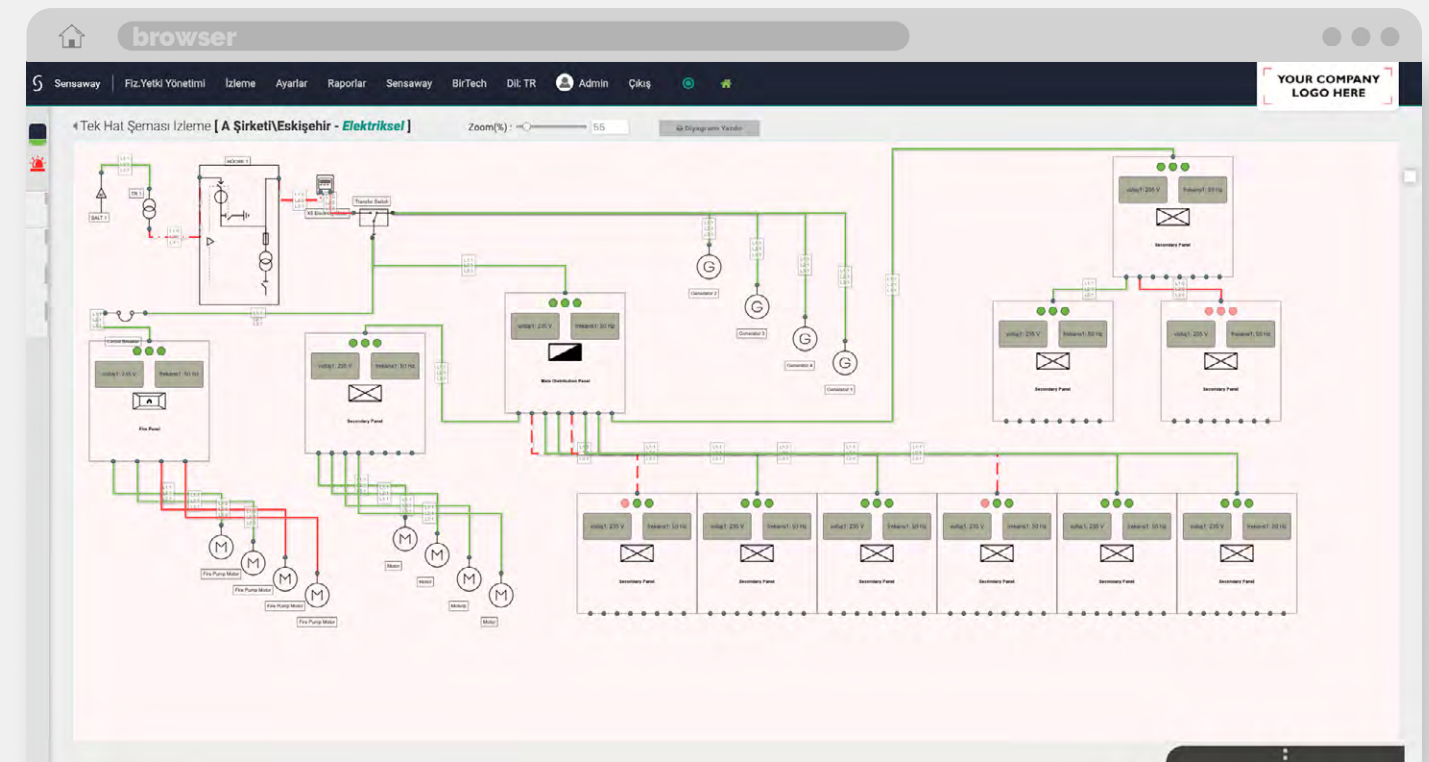
alert notification methods.

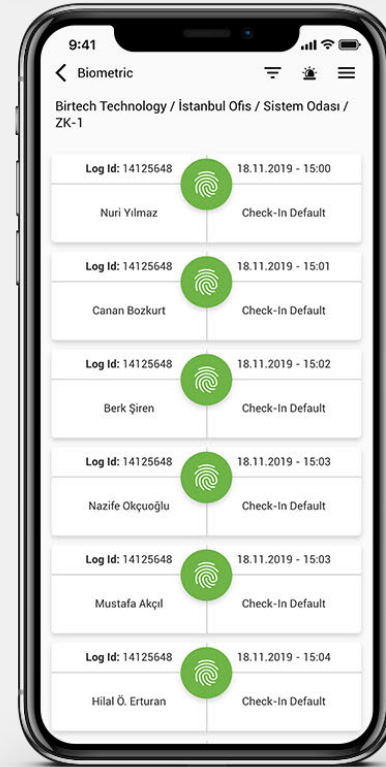
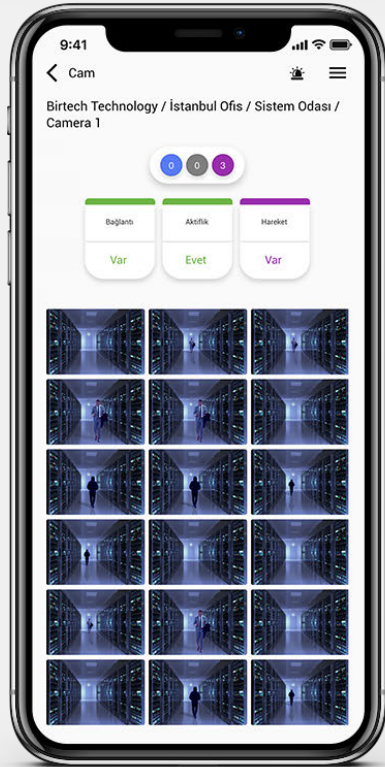
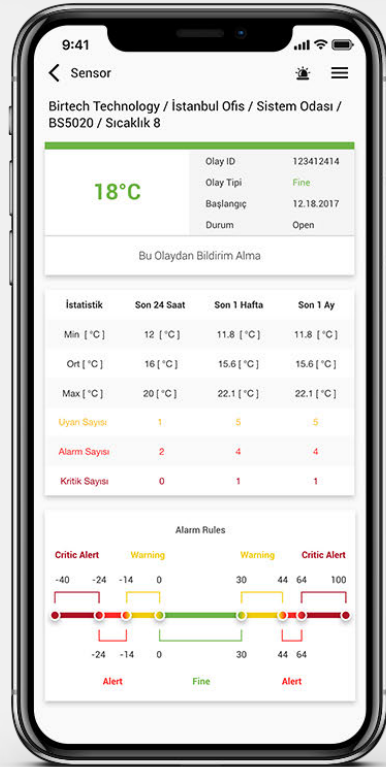
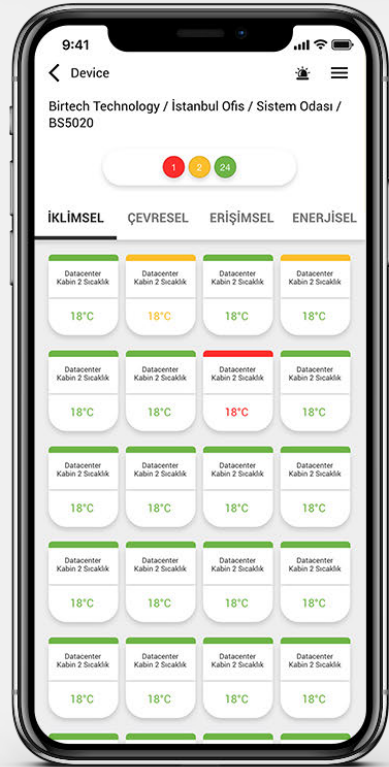
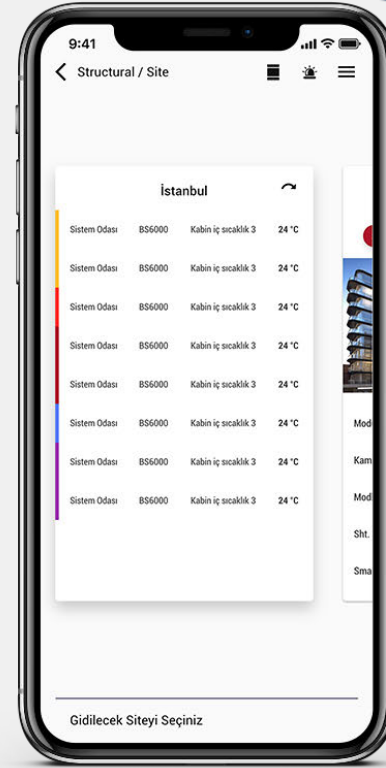
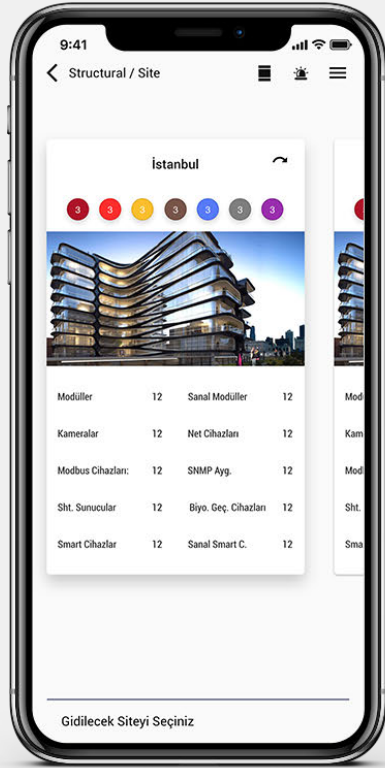
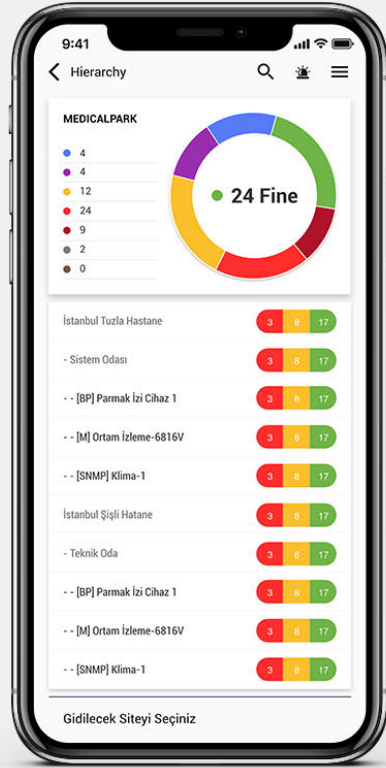
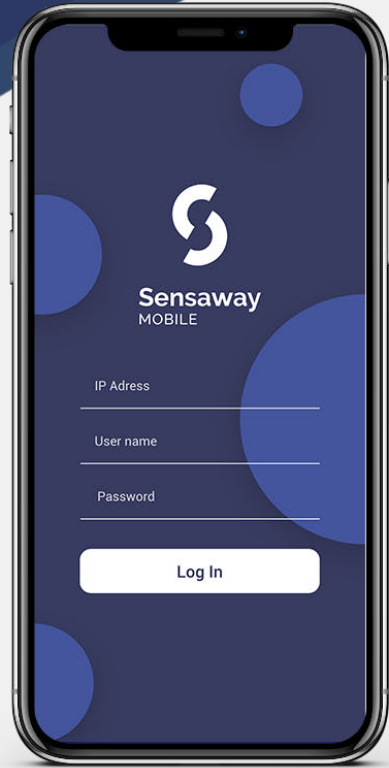
You can design the Online electricity Single Line Energy Monitoring screens easily by yourself according to the requirements of your business. Thanks to its library that contain rich variety elements, you can use all the switching materials you want (brand independent). You can create your own items when you have special item requirements.

Private names can be given to all switching materials and so, in case of any alert situation, you may see failure alarm information in e-mail, SMS and mobile notifications in more detail and manage them as well.

Alarms that will occur in Energy Monitoring can be monitored instantly on the monitoring screen and the location of the fault can be easily detected from the explanatory queue address.

The diagram of the Single Line diagram can be taken from the software in PDF format instantly.







BS-6000 Series

Environmental Monitoring System

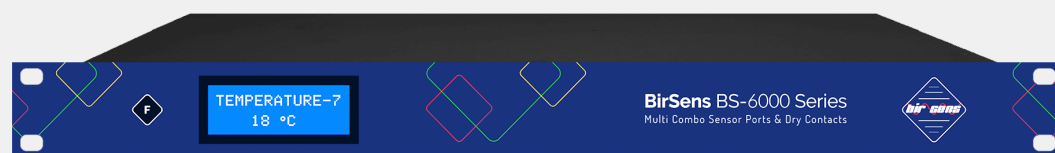
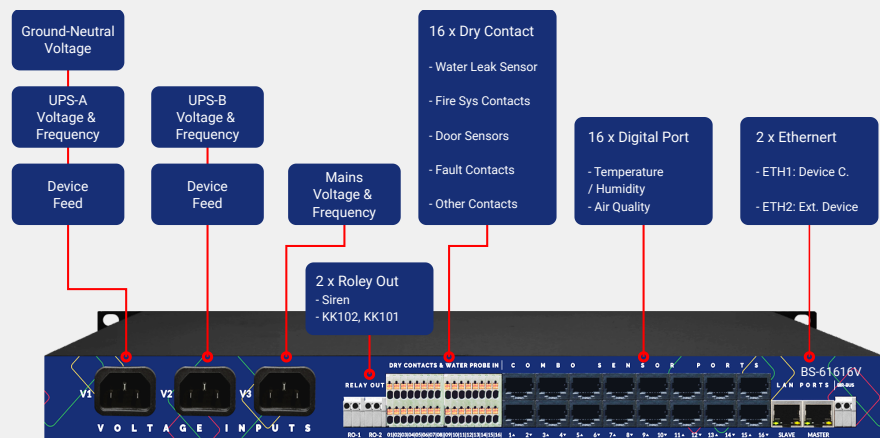
Flexibility That Can Grow WITH YOU



Depending on the size of the environment, it offers a rack cabin-mounted structure that can be expanded by the number and type of sensors to be positioned. Optimum solutions are obtained in the data centers where more than one sensor data needs to be monitored in particular.



With Free Sensaway Monitoring & Management Software Licence



Model	Number of Combo Digital Sensor Port	BirBus Sensor Port	Number of Dry Contact / Water Leak Sensor Port	16A Relay Out	Redundancy Voltage Feed (V1 / V2)	3-Phase Voltage (Volt)	3-Phase Frequency (Hz)	Ground / Neutral (V)
BS-6408B	4	+	8	2	-	-	-	-
BS-6408V	4	+	8	2	+	+	+	+
BS-6816B	8	+	16	2	-	-	-	-
BS-6816V	8	+	16	2	+	+	+	+
BS-61616V	16	+	16	2	+	+	+	+

Sensors



Temperature



Dry contact



Humidity



Water Leak



Smoke



Security



Electricity



Frequency

Network & Security

Connection : 10/100 Ethernet

Security : Password protection, IP address, Filtering, HTTPS

Protocols : HTTP, TCP/IP, UDP, DHCP, SNMP

Warning, Alarm & Information

- SNMP Traps
- Buzzer sound warning
- Written and illuminated warning via LCD
- Email (with management software)
- SMS and Phone Call (with SMS Module)
- Voice warning via management software
- Audible - Visual warning module (siren)

Parameters



CLIMATIC PARAMETERS

Temperature - Humidity, Termocouple, Dew point temperature controls.



ENVIRONMENTAL PARAMETERS

Smoke, Air Quality, Gas Leakage, Water Leakage - Flood, Motion, Earthquake, Shake controls.



ELECTRICAL PARAMETERS

Voltage & Frequency for three Separate Phases, Ground - Neutral (Grounding voltage) controls.



ACCESSIBILITY PARAMETERS

Connectivity Yes / No control.

Other

Power: 85 - 265 VAC, 2.75W

Connectors: RJ-45, Universal voltage plug-in

LCD: 2 satır X 16 characters

Operating Conditions: -30°C, +80°C and 0 - 85 %RH humidity

Dimensions, weight: 19" -1U (482,6 x 146 x 43,5 mm), 1200 gr

Accessories:

Installation and operating instructions (DVD), Management Software license (1)



BS-4500

Environmental Monitoring System

We Know About Your Technical Rooms



Desktop-mounted solutions for small environments such as cabins and panels, provide practical and economical solutions with POE connectivity for any critical environment.



With Free Sensaway Monitoring & Management Software Licence



Model	Number of Combo Digital Sensor Port	Number of Dry Contact / Flood Sensor Port (Max)
BS-4500	3	6

Combo Digital Sensor Inputs : Temperature, Temperature / Humidity, Termocouple, Air Quality.

Dry Contact Sensor Inputs : Door On / Of, Water Leakage, Smoke, PIR, Earthquake, Impact / Shake detectors ve and any device connection with contact output.

Sensors



Temperature



Dry contact



Moisture



Flooding



Smoke



Security

Network & Security

Connection : POE Ethernet

Security : Password protection, IP address, Filtering, HTTPS

Protocols : HTTP, TCP/IP, UDP, DHCP, SNMP

Warning, Alarm & Information

- SNMP Traps
- Buzzer sound warning
- Written and illuminated warning via LCD
- Email (with management software)
- SMS and Phone Call (with SMS Module)
- Voice warning via management software

Parameters



CLIMATIC PARAMETERS

Temperature - Humidity, Termocouple, Dew point temperature controls.



ENVIRONMENTAL PARAMETERS

Smoke, Air Quality, Gas Leakage, Water Leakage - Flood, Motion, Earthquake, Shake controls.



ACCESSIBILITY PARAMETERS

Connectivity Yes / No control.

Other

Power: 5 VDC, 2.5W

Connectors: RJ-45, DC Cylindrical Connector

LCD: 2 line X 10 characters

Operating Conditions: -30°C, +80°C and 0 – 85 %RH humidity

Dimensions, weight: 55 x 122 x 40 mm), 280 gr

Accessories:

Power adaptert
Installation and operating instructions
Management Software (Sensaway) license (1)

Climatic Sensors



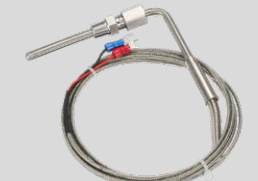
TEMPERATURE SENSOR

It measured the temperature of the environment between -40 °C and +80 °C with 0,5 °C precision and 0.1 resolution.



TEMPERATURE - HUMIDITY SENSOR

It measures; the environment temperature between -40 °C and +80 °C with 0,5 °C precision and 0.1 resolution; and measures the environment humidity between %0 and %100 RH with 1.8 % precision and 1 resolution.



INDUSTRIAL TEMPERATURE SENSOR

Thanks to thermo couple sensor, you may measure the temperature between -270°C and +1260 °C values in industrial environments.



AIR FLOW SENSOR

It is the sensor that detects whether there is any air flow in the systems such as air conditioning systems and ventilation systems.

Energetic Sensors



VOLTAGE / FREQUENCY MEASUREMENT

Between 0 and 285 VAC interval, 1% precision (Network/UPS)

Between 0 and 100 Hz interval, 1 Hz. precision (Network/UPS)



MEASUREMENT OF GROUNDING VOLTAGE

It provides a reference value in terms of grounding quality, by measuring Earth - Neutral Voltage between 0 and 30 VAC with 2% precision in the range.



ENERGY AVAILABLE / UNAVAILABLE SENSOR

You may follow instantly whether the energy available or unavailable.



ENERGY AVAILABLE / UNAVAILABLE and SWITCH ON/OFF CONTROLLER

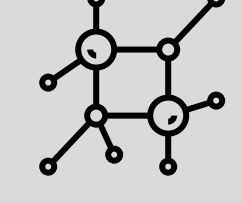
You may not only monitor instant available / unavailable situation of your energy but also you may switch on / off any device remotely, which was connected to the control unit.

Environmental Sensors



AIR QUALITY

[CO, H2, CH4, Ethanol, Isobutane, 1-10 ppm]
It enables to evaluate the change of ambient air quality with the effect of smoke or pollutant gases with a sensitivity of 0-100. The recommended ideal range is rated as 70-100



MEDICAL GAS SENSORS

These sensors detect the leaks that may occur from O2, NH3, CO2 gas cylinders existed in the medical gas chambers of the hospitals and provide quick informing.



CABLE TYPE WATER LEAK

It is used for local detection of water leaks that may occur on the ground.
Options for 1, 2, 5 meters are available.



POINT TYPE WATER LEAK

It is used for the detection of point water leaks that may occur on the floor of the environment.



DOOR SENSOR (OPEN/CLOSED)

Controls whether the environment/ media or cabinet doors are open / closed.



SMOKE DETECTOR

It detects and informs the smoke caused by fire or cigarette in the environment.



DRY CONTACT (YES/NO)

It provides integration of alarm conditions of the devices to the system, such as UPS, air conditioner, generator, fire extinguishing systems that give dry contact outputs.



MOVEMENT SENSING (PIR)

Detects the movements occurring in the environment. The option for taking pictures during the movement is available in our IP camera supported models.



EARTHQUAKE SENSOR

It detects earthquake motion in vibrations with acceleration value that were specified in the TSE standards.
During the earthquake, outputs can be taken for indoor gas and electricity cuts or for audio-visual siren.



IMPACT / SHOCK SENSOR

It detects vandal attacks and jolts that units such as System cabinets, outdoor ATMs will expose.

Accessories



Audible & Visual Warning Module (siren)

If any ambient parameter, belonging to the environment, takes a value out of the defined normal value range, it informs the authorities through audibly/visually via siren and light. It can be positioned at the desired distance. Thanks to this feature, it can be extended out of the room or in rooms where security personnel are available, using a cat-6 cable.

Thanks to the battery located on it, it continues to work in case of power failure.



Motion Control & Video Recording with IP Camera

It ensures recording, archiving of the movements and intrusive people in the environment and informing of the authorities with pictured e-mails.

If it is desired, video recording and archive options are available continuously or on the move.



Energy Analyzer

You can instantly monitor your energy usage, quality and efficiency and receive notifications, through our Energy Analyzer models that can be connected to the network over TCP / IP or SNMP. With Sensaway Web and Sensaway Mobile features, it is now easy to optimize energy consumption, reduce energy costs, and achieve sustainable energy targets in line with energy tracking, storage and archiving of data, and analysis from this data.



Web SMS Integration

Sensaway management software can be integrated with the existed web SMS application of your organization through web. If desired, this service can be obtained with ready sensaway web SMS packages as well.

Air Conditioner Control Units

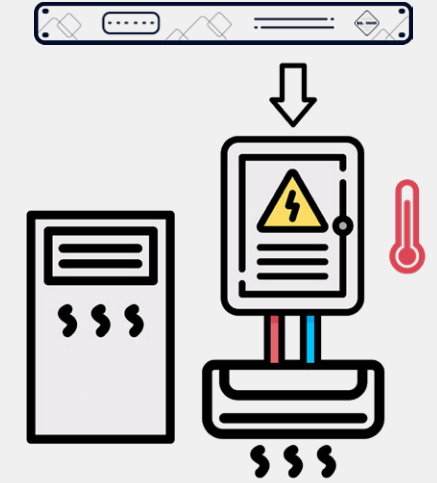
KK101 Backup Air-Conditioner Control Unit

When BIRSENS Environmental Monitoring Systems and Backup Air Conditioner Board are used together;

if your IT or Industrial air conditioner you use regularly malfunctions or if the system room cannot be cooled at defined intervals,

it provides commissioning and operating of the backup air conditioner and when the System Room temperature comes in to the defined range,

it provides switching off the backup air conditioner. Now you can extend the life of your air conditioner and save energy by operating your backup air conditioner automatically when necessary!



KK102 Co-Aging Unit

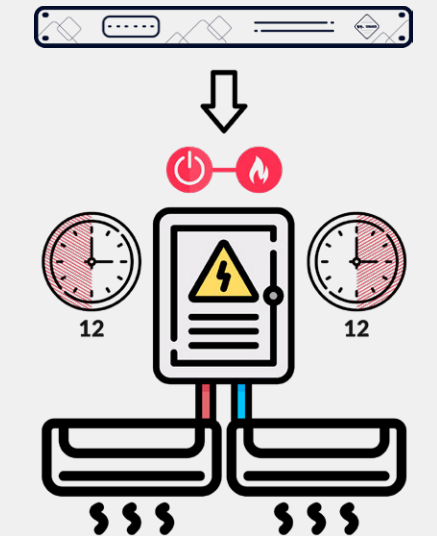
When BIRSENS Environment Monitoring Systems and a Time Adjusted Backup Air Conditioner Panel are used together,

it provides operating of 2 separate air conditioners in 12 hours intervals per day, and if an air conditioner that should be operated during the operating time interval breakdowns or the system room cannot be cooled at specified temperature range,

it provides operating of both air conditioners by commissioning the backup air conditioner and when the system room temperature comes in between the predefined temperature range,

it provides deactivating of the backup air conditioner again. Furthermore, in case of fire, both air conditioners are closed completely and oxygen circulation in the room is stopped. By this means, the fire can be

extinguished for a shorter period of time. It is now in your hands to extend lives of your air conditioners by resting them and to save energy by operating the backup air conditioner only when required.





Sms & Phone Call Modules



Access Control Systems

100% integrated to environment monitoring!





-Optional list of people logging on is notified to authorized persons instantly by mail and SMS.

-You can follow the door open / close status.

-By choosing the date range on the software; who entered, when entered, and entered by which method, who tried to enter (illegal), when and if pressed from inside, you can get this information as a report.

- When the device is disconnected, you can see the tamper alarm via the software and receive notification.

- You can add users via software and move that user to your device located at another location.

BirSens Standart SMS & Smart SMS - Device Compare	 Standart Module BS-865T	 Smart Module BS-978T
Model		
Connection Type	USB	Ethernet / IP Based
Built-in Battery	-	Var
Power Failure Notification.	-	Var
Sensaway Operational Status Control	-	Var
Instant Status Information via LED Indicators	2	5

Access Control Logs				
Device	Person	Verify Type	Acces Type	Acces Time
X Company / A Site / Data Center / BioAccess1	John Doe	Finger Print	Entrance	17.01.2020 18:01:05
X Company / A Site / Data Center / BioAccess1	Jane Doe	Finger Print	Entrance	17.01.2020 17:42:19
X Company / A Site / Data Center / BioAccess1	Jack Whitestone	RFID	Entrance	17.01.2020 17:40:01

Access Control Systems Mail Notification Sample

** Ability to open the door optionally via software, within the authority.



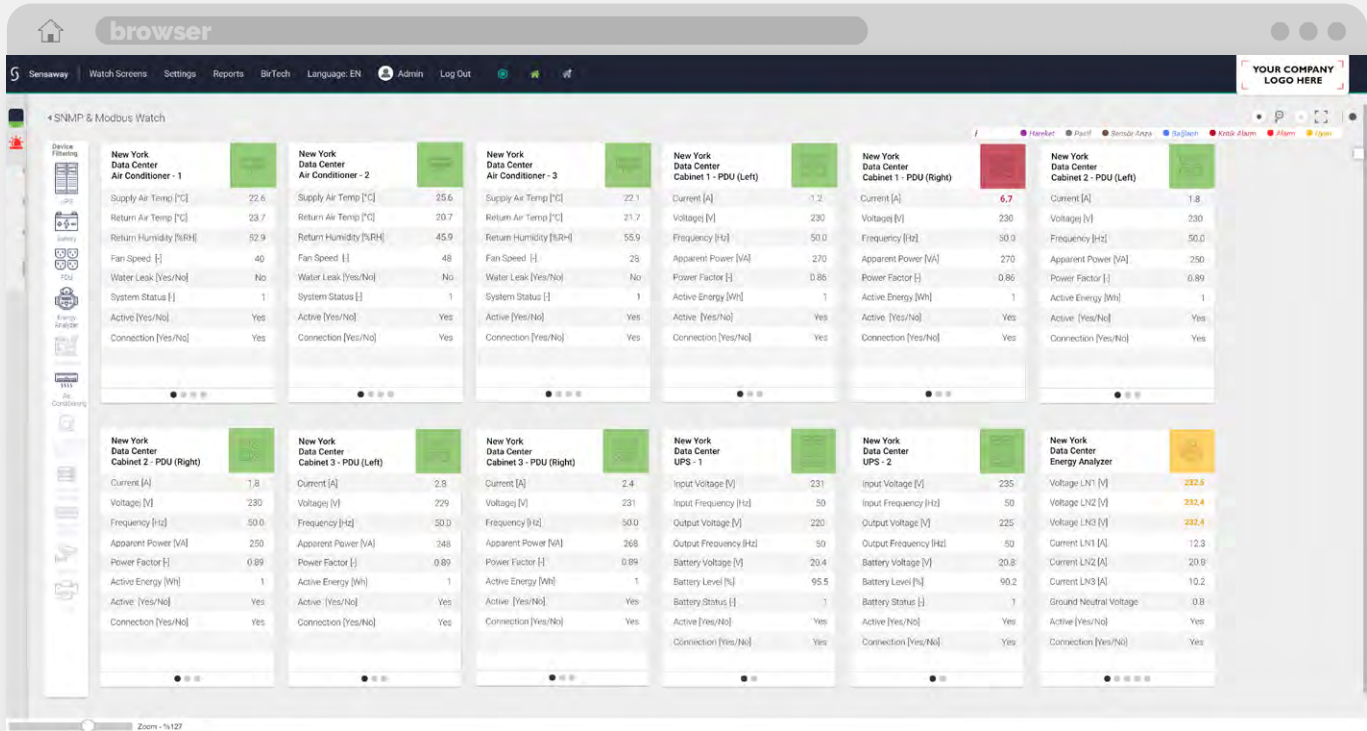
Data Center Management with Sensaway (DCM)

Thanks to SNMP License Packages, you can monitor and manage PDU, UPS, Air Conditioning, CRAC, Analyzer, Generator, various IT devices, or different sensors on the device and sensor basis with their Sensaway features.

SNMP License Table

License Model	Number of Devices	Number of Sensors	License Period (Year)
SNMP 3/30 - 3Y	3	30	3
SNMP 3/30 - 5Y	3	30	5
SNMP 10/100 - 3Y	10	100	3
SNMP 10/100 - 5Y	10	100	5
SNMP 20/200 - 3Y	20	200	3
SNMP 20/200 - 5Y	20	200	5
SNMP 50/500 - 3Y	50	500	3
SNMP 50/500 - 5Y	50	500	5
SNMP 100/1000 - 3Y	100	1000	3
SNMP 100/1000 - 5Y	100	1000	5

Device Monitoring via SNMP





Connection Tracking / Monitoring of Network Devices (NETDENET)

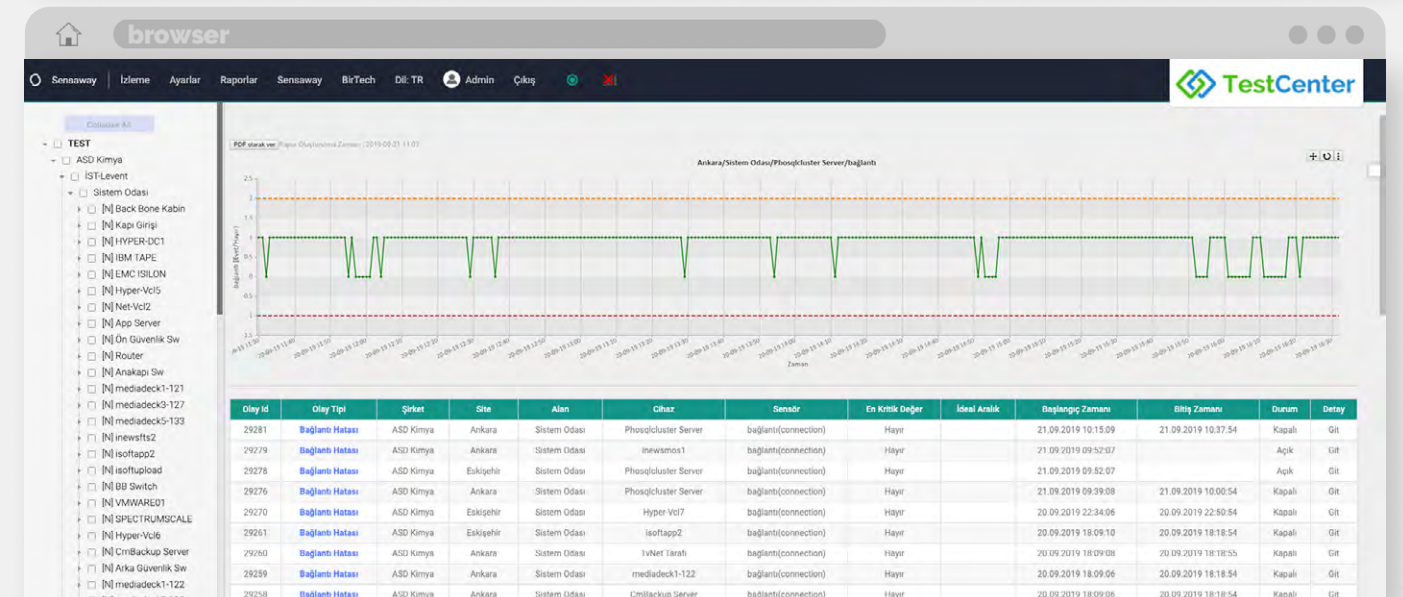
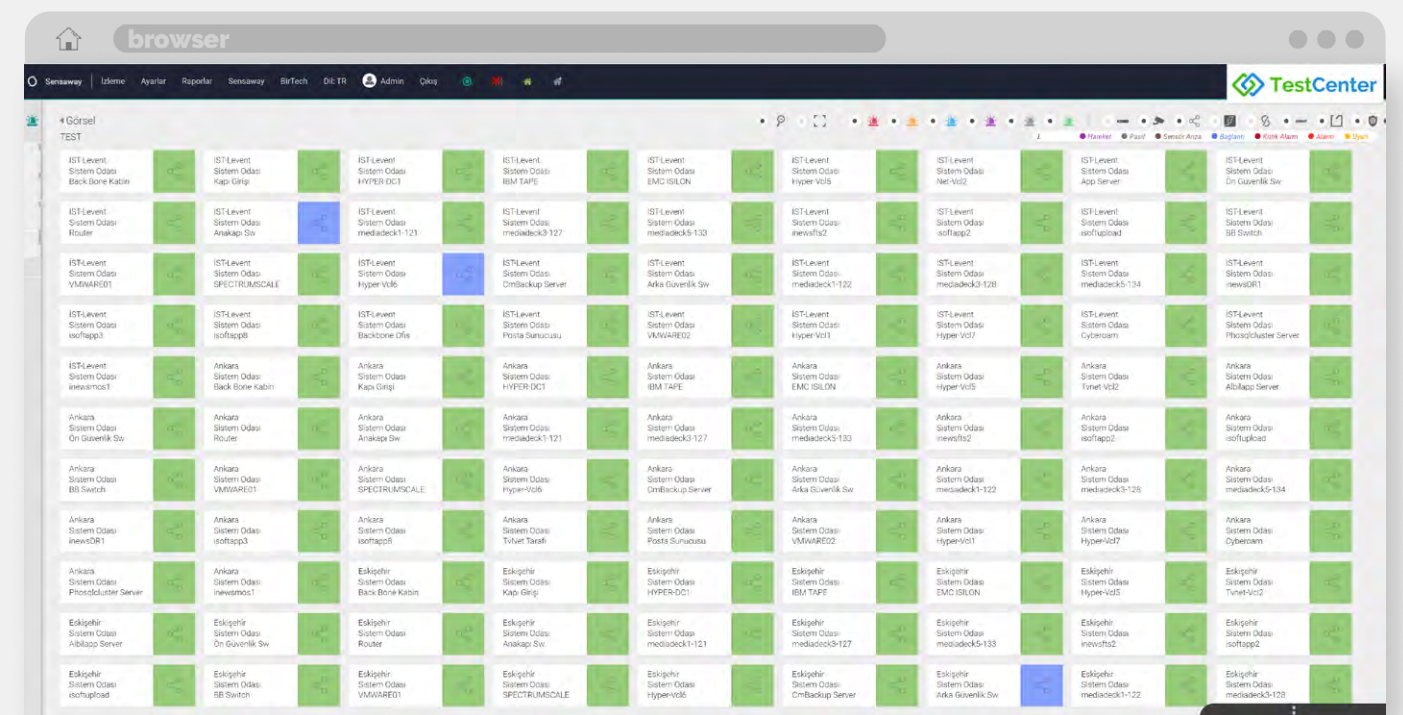
Thanks to NETDENET License Packages, you can monitor the connections of IP access devices such as server, access point, switch, router, IP camera, IP switchboard with Sensaway features. You can be aware of any interruptions that may occur before anyone else.



NETDENET License Table

Lisans Modeli	Cihaz Sayısı	Lisans Süresi (Yıl)
NetDeNet-5	5	Süresiz
NetDeNet-10	10	Süresiz
NetDeNet-50	50	Süresiz
NetDeNet-100	100	Süresiz

Connection Monitoring via Sensaway





Sensaway - Auto ShutDown

Thanks to Sensaway Auto Shut Down, you can ensure shutting down of your servers properly, in precious and controlled manner, if the UPS starts operating from the Batteries due to the power cut in your data center or your air conditioners break down due to any malfunction.

Thus, by switching off the low important servers previously, you can both extend the uptime of important servers, save time for intervention and shut down your systems more safely.



Analyzer and Modbus License

Modbus provides opportunity to monitor, control and manage any device or system with Sensaway features that can receive data with RS-232, RS485 protocols.



AUTO SHUTDOWN LICENSE TABLE

License Model	Number of Servers	License Period (Year)
Sensaway – Auto Shut Down – 10/3Y	10	3
Sensaway – Auto Shut Down – 10/5Y	10	5
Sensaway – Auto Shut Down – 20/3Y	20	3
Sensaway – Auto Shut Down – 20/5Y	20	5
Sensaway – Auto Shut Down – 50/3Y	50	3
Sensaway – Auto Shut Down – 50/5Y	50	5

ANALYZER & MODBUS LICENSE TABLE

License Model	Number of Devices	Number of Sensors	License Period (Year)
Modbus 10/100 – 3Y	10	100	3
Modbus 10/100 – 5Y	10	100	5
Modbus 20/200 – 3Y	20	200	3
Modbus 20/200 – 5Y	20	200	5
Modbus 50/500 – 3Y	50	500	3
Modbus 50/500 – 5Y	50	500	5
Modbus 100/1000 – 3Y	100	1000	3
Modbus 100/1000 – 5Y	100	1000	5

References (Public Sector)



References (Private Sector)



References (Private Sector)



References (Private Sector)





The importance of the systems named Environmental Monitoring is becoming more and more evident.

The development of electronics and information technologies creates the need for the stabilization of the conditions of the environments in which information is produced and processed; At the same time, it brings new solutions for this stabilization.

We have 20 years of R&D and product development knowledge and experience, and our organization has been taking place in the sector with well known and preferred brands and models all over our country.

Working with the concepts of BirSens, Sensaway and Sensgineer, which we have created by combining sensor technologies with engineering methodologies, we are ready to work on ready solutions that the industry needs or solutions that can be produced quickly.

With our Sensgineer character, all of our teammates — as Sensgineers themselves — will help you with our solutions in the direction of your needs.

In this brochure you will find our ready solutions that satisfy many of our customers and you can decide how to produce the solution you need.

When you need more in-depth knowledge or need different solutions, our Sensgineer friends will be pleased to offer you a solution.

