Sensor Monitoring

Monitor temperature, air flow, humidity, dry contacts and more.

Power

Monitor server rack AC or DC power and react quickly to power outages.

Cabinet Access Control

Restrict access to front and rear server cabinet doors.

Water Leak Detection

Detect water leaks before they cause damage to equipment.

Client Profile

Organization

Location
Male

Industry Segment
Accounts & Audit Officer

Product Used

AKCP

DATA CENTER MONITORING

Universal Mount Digital Cameras

Power Monitoring Sensors

Temperature Sensors

Ultrasonic Fuel Level Sensors

securityProbe 5E - Secure Ethernet Link or GPRS

Sensor Threshold Configurations

Graphs and Reporting Functions

Notifications sent via SMS or MMS to Smart Phone

SAFE NETWORK
IT SECURITY COMPANY

Proposal for Environment Monitoring System

Part No.	Product Description	Qty	Comments
SP2+ 3GM	Environmental Monitoring System /Monitor up to 4 AKCP Intelligent Sensors with 3G Internal Modem	1	Main controller unit, 4 RJ-45 Sensor Ports for connecting AKCP Autosense Sensors
TMP15	Temperature and Humidity Sensor	1	To monitor Temperature/Humidity
RWSC10	Rope Water Sensor	1	Detect water leaks over a wide area
SK15	Smoke Detector	1	To detect smoke
ACV00	AC Voltage Sensor	1	Detect voltage Measurement

Sensor connectivity
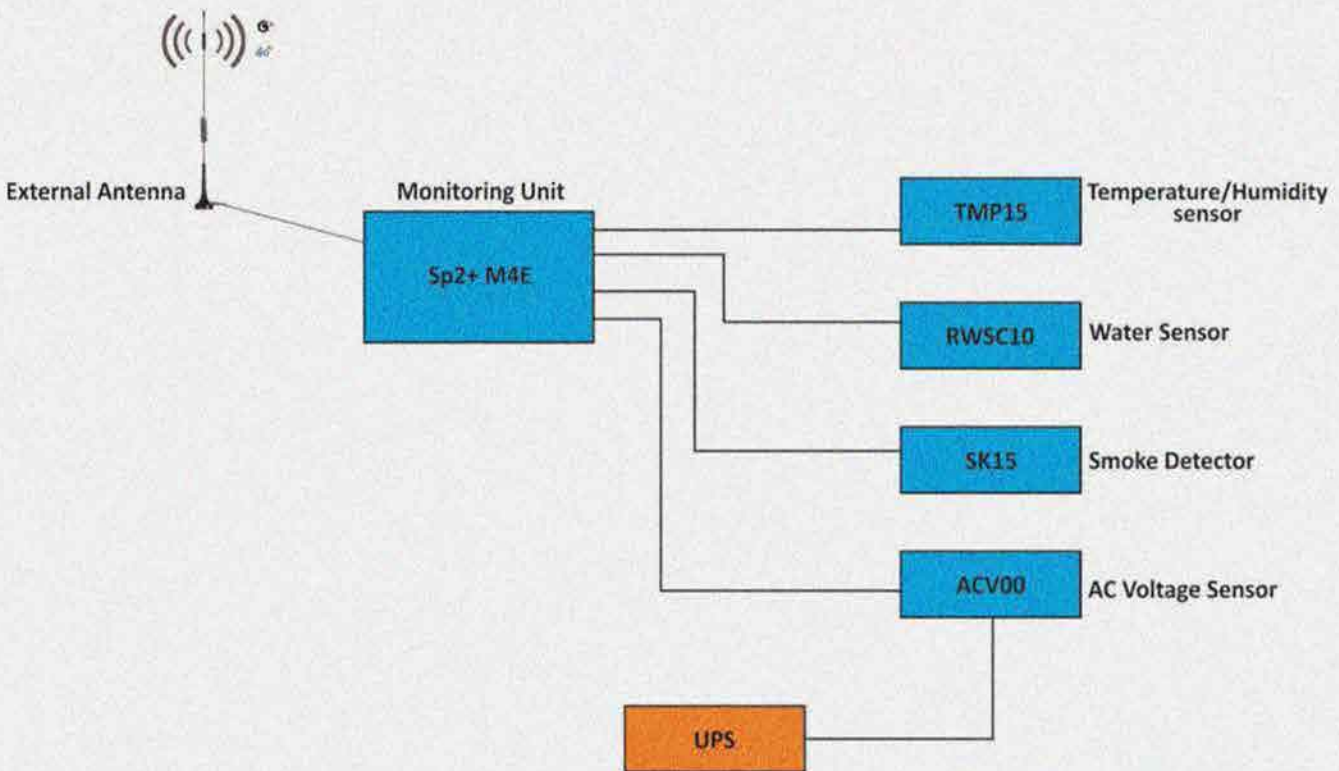
Environment Monitoring Solution that can monitor and alert the relevant authorities in case of any of these environmental conditions vary from the standards. Solution propose to install a single environment monitoring device (SP2+ M4E) to monitor basic parameters like temperature, humidity, AC voltage (UPS output) and liquid penetration/accumulation underneath the raised floor or near server/equipment racks. The system will trigger emails through the in-house email server, SMS through GSM modem and voice dialing alerts through automatic voice dialer to relevant authorities within the IT and maintenance departments to take prompt actions. Alerts can be configured to trigger at the early stages to prevent any damages from happening due to those conditions.

The environment monitoring device will have a web interface so the users can login to the device. Uses will be created on each device to manage/monitor their offices. Users can be given rights only for monitoring. In case of having multiple monitoring devices, central management software will enable the configuration of all devices from a central location.

Alerts can be configured to inform exceed in a given threshold and returning to normal status. So the authorities will be aware of what is happening in the datacenters.

Product Details

SP2+ 3GM

Ethernet

4x Intelligent Sensor Ports

The SensorProbe2+ allows for monitoring of Four intelligent sensors from anywhere in the world. Set up threshold conditions through an easy webpage interface, and be alerted via Email or SMS Text message (via a 3rd party email-to-SMS gateway), or via SNMP traps into a SNMP monitoring system, and stop worrying! Pull up a web page and check the status at any time. The SensorProbe2+ is an intelligent Four-port sensor device for monitoring environmental variations (temperature, humidity, airflow etc), power, physical threats and security. The SP2+ has an embedded host processor with a proprietary Linux like Operating System, including TCP/IP stack, Web server, email, SMS and full SNMP functionality

- IP based, including SNMPv3, HTTPS, VPN
- Send encrypted SNMP Trap and Email Notifications
- Supports 4 Intelligent Sensors or up to 20 Dry Contacts
- Optional cellular modem with external antenna
- Optional Expansion Module connectivity
- Virtual Sensors
- Optional Modbus/Canbus

Intelligent Sensors

SP2+ is compatible with all AKCP Intelligent sensors, making it an extremely versatile and cost effective monitoring solution. From the data center, to remote sites, industrial controls it has you covered.

Environmental Monitoring Sensors
Wherever monitoring of environmental conditions is important to your daily operations and health of equipment, deploy sensors to monitor temperature, humidity, airflow and water leaks.

Security Sensors
RFID Access control swing handle cabinet locks, door contacts and motion detectors will keep you in tune with the security situation at your sites down to cabinet level. Control who can access and when with RFID access control, centrally managed and monitored through AKCP Pro Server.

Power Sensors
AC Voltage detection, DC volt meters, sensor-controlled relays and power metering can all be done on the SP2+

Specialized Sensors
Ultrasonic tank level sensors can monitor for liquid levels in fuel tanks, oil storage, chemical tanks and so on. Any tank up to 2 meters in depth can be monitored. Alarms generated when levels drop to critical levels, making sure you can re-fill with sufficient notice. Other specialized sensors include the key switch override, to disable notifications while maintenance work is being performed, and a programmable LCD display.

Available Sensors

TMP15 Temperature & Humidity Sensor

The AKCP single port dual Temperature & Humidity Sensors has both temperature and humidity measuring capabilities in a single sensor. This extends the capability of the sensor Probe to measure up to 8 temperature and 8 humidity sensing parameters, just by connecting 8 dual sensors.

Up to 2 dual sensors can be plugged into the RJ-45 jacks on the sensorProbe2 and up to 8 sensors on the sensorProbe8, sensorProbe8-X20/X60.

Temperature

- Never needs Calibration
- Measurement range Celsius: -40°C to +75°C
- Measurement resolution Celsius: 1°C for the sensor Probe and 0.1°C for the security Probe units.
- Measurement accuracy Celsius: Maximum ±2.3 at -40ºC, minimum ±0.4 at +25ºC and ±1.7 at +75ºC
- Measurement range Fahrenheit: -40°F to +167°F
- Measurement resolution Fahrenheit: 1°F for the sensor Probe and 0.1°C for the security Probe units.
- Measurement accuracy Fahrenheit: Maximum ±4.1 at -40ºF, minimum ±0.9 at +25ºC and ±4 at +167ºF
- Communications Cable: RJ45 jack to temperature sensor using UTP Cat 5 wire
- Sensor Type: semiconductor microprocessor controlled
- Power Source: powered by the sensor Probe. No additional power needed.
- Power Consumption: Typical 10.70 m Watt, 2.14mA sensor Probe autodetects the presence of the temperature sensor
- Measurement Rate: one reading every second Up to 2 temperature sensors per sensorProbe2, 8 per sensorProbe8. You can connect up to 8 on the security Probe main unit and 8 more on each E-sensor8 expansion module.
- OID temperature sensor Probe Temp Degree = 1.3.6.1.4.1.3854.1.2.2.1.16.1.3.X
- OID temperature sensor Probe Temp Status = 1.3.6.1.4.1.3854.1.2.2.1.16.1.4.X
- OID humidity sensor Probe Humidity Percent = 1.3.6.1.4.1.3854.1.2.2.1.17.1.3.X
- OID humidity sensor Probe Humidity Status = 1.3.6.1.4.1.3854.1.2.2.1.17.1.4.X

Humidity

- Measurement range: 0 to 100% Relative humidity
- Resolution: 1% for the sensor Probes and 0.1% for the security Probe units.
- Accuracy: 25°C ±3%
- Communications Cable: UTP Cat 5 cable
- Powered by the sensor Probe. No additional power needed
- Power Consumption: Typical 7.25 m Watt, 1.45mA
- Sensor element wet table without damage
- Sensor Probe auto detects the presence of the dual sensor
- Up to 2 dual sensors per sensorProbe2, 8 per sensorProbe8, security Probe and E-sensor8 module

With the rope Water sensor, you can protect your essential equipment from potentially harmful water damage. Designed and manufactured by AKCP it forms an integral part of your disaster prevention system.

Ideal for use in basements and under false floors and roof spaces, the rope Water sensor can cover a large area. Combined with any of the sensor Probe series or security Probe series units it will give you advance notice of any water leaks or flooding.

The sensor will retain its error condition until it is read via an SNMP get. Therefore, if the sensor encounters a critical condition at any time it will report that condition before it returns to a normal state.

Measurement range	Wet or Dry (-20 °C- +60 °C)
Measurement accuracy	Able to detect the presence or non-presence of water.
Sensor type	Patent pending, capacitance measurement technology
Power consumption	Typical 125 mWatt, 25 mA
Communications Cable	RJ-45 jack to main sensor module using UTP CAT5 cable.

- Maximum extension cable run length is 30 meters (100 feet).
- Comes fully assembled including the Water sensing rope, the non-sensing cable that connects the rope to the sensing module and the main sensing module that connects via CAT5 LAN cable to the sensorProbe / securityProbe.
- Sensing rope cable can be pre-ordered from a 10 foot minimum to any custom run length of up to 165 feet or 50 meters.
- Non-sensing cable comes in a standard 20 foot run length.
- Sensor OID is .1.3.6.1.4.1.3854.1.2.2.1.18.1.3.0

Note: AKCP do not recommend the ropeWater Sensor to be placed on a conductive surface.

SK15 Smoke Detector

Monitoring for developing smoke is an essential aspect in the security and safety of any facility.
AKCP has designed a smoke sensor specifically for use with its sensor Probe and security Probe product line. These smoke detectors are easy to install and configure and can be used in conjunction with all other of AKCP's alerting features.

- Accurate, cost effective Smoke Detector
- On/Off alarm signal of Smoke Detected
- LED indicates the status of Smoke Detector
- Low profile design for ceiling mounting for maximum smoke detection
- Sensor type – open/closed contact switch
- Up to 2 Smoke Detector Sensors per sensorProbe2, and 8 per sensorProbe8/security Probe
- Includes disconnect alarm that checks that the sensor is securely plugged into the sensor/security Probe
- The smoke detector can also be attached to dry contacts of a X20 or X60 unit
- With 9V battery as backup the sensor/security Probe will still work as a smoke detector on its own

ACV00 AC Voltage Sensor

The AC voltage detector is used to indicate the presence or absence of line voltage. This is useful, for example to tell when the UPS is running on battery power.

The AC Voltage Detector indicates an ALARM/NORMAL condition in software and also via an LED mounted on the sensor. Voltage detectors can detect the presence or the absence of line voltage. It is designed for use worldwide. There is an SNMP interface for getting the alarm/normal status. SNMP traps are sent when critical conditions occur.

SNMP polling via 'get' is available to retrieve existing status and configuration parameters. The Web browser interface is also available to display the status and configuration parameters.

- Measurement Range: Detects voltage at 50V AC to 250V AC
- Measurement Indication: Alarm or Normal
- Communications Cable: RJ45 jack to sensor using UTP Cat 5 wire
- Max. Cable Length: 305m (1000 ft.) with approved low capacitance shielded cable or UTP
- Sensor Type: Open / Closed contact switch
- Measurement Rate: Multiple readings every second