AceVig Technology

Intelligent Monitoring Solutions

AceVig®

About AceVig Technology

Leading expert in designing, manufacturing intelligent monitoring system

AceVig Technology stands tall as an exceptional designer, manufacturer, and leading supplier in the realm of intelligent monitoring systems, boasting an elite team of professionals with over two decades of profound experience and exceptional skills.

With a global perspective, AceVig firmly establishes itself on the essence of engineering expertise, boldly embracing complex engineering challenges that others hesitate to take on. We have forged partnerships across the globe, delivering exceptional services to over 10,000 customers.

The company has meticulously developed a range of software and hardware products tailored for intelligent monitoring, encompassing core areas such as data centers, server rooms, smart buildings, and infrastructure. Moreover, our offerings extend to numerous diverse industries and application scenarios, exhibiting unparalleled versatility and forward-thinking innovation.

Qatar
Saudi Arabia
Hongkong
India
Macao
Malaysia
Thailand
Vietnam
Singapore
Pakistan
Philippines
Indonesia

CHINA CITIC BANK
citibank
Tianjin University
CHINA GALAXY SECURITIES
ICBC
BANK OF CHINA
SINO LIFE
Lenovo
WANT WANT GROUP
MetLife
BYD AUTO
Xinhua Hospital
STATE GRID CORPORATION OF CHINA
STANLEY MAKE SOMETHING GREAT
SHANGHAI JIAO TONG UNIVERSITY
BRTV BEIJING RADIO & TELEVISION STATION
Sheraton Xian
AURORA
CHINA TELECOM Connecting the World
SOHU.com

ACEVIG

Customer five-star rating

The software and hardware solutions run stably and effectively improve the operation and maintenance efficiency of our data center. The after-sales service also makes us feel more at ease.
---**Adam from Lenovo Data Center**

BYD's smart building monitoring project was successfully implemented by your company, which not only improved the safety of the office environment, but also brought convenience to our management.
---**Sophia from BYD Human Resources**

Our bank has cooperated with your company on access control monitoring projects for more than a dozen branches. Your company's technical prowess and responsiveness are impressive.
---**Ethan from Bank of China Security Center**

In the government smart city construction project, the intelligent monitoring software and hardware solutions provided by your company helped us achieve comprehensive monitoring of public areas.
---**Oliver from A Government Information Center**

Our university cooperated with your company to implement a campus security monitoring system, providing a safer and more convenient learning environment for our teachers and students.
---**Cassandra from Tsinghua University Logistics Management Office**

Measurement → Analytics → Plan → Action
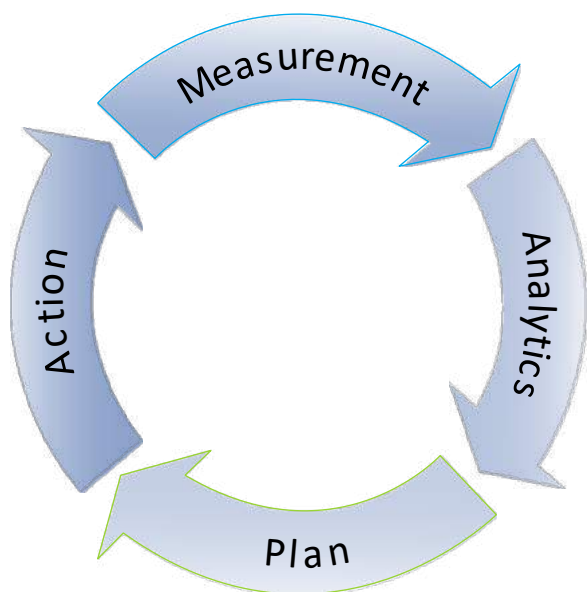
Measurement
Measure and monitor the overall environment in real-time from a central dashboard

Analytics
Create a virtual model of the infrastructure to digitally and three-dimensionally map the relationships between all these components

Plan
Manage your environment and equipment better based on insightful historical information and trend analysis with well-grounded planning

Action
Define actionable solutions and configurations to execute
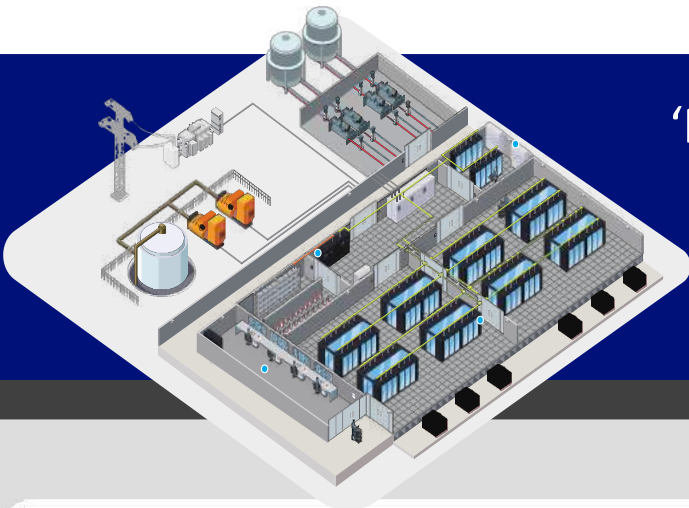
Scalable

Secure

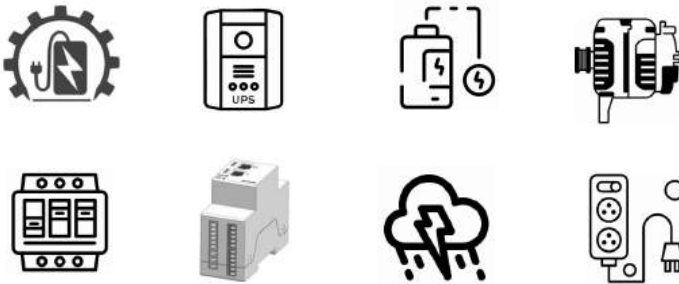Energy Efficient

Integrated

Modular

3D Visualization

WHY CHOOSE ACEVIG?

'Providing a comprehensive level of business intelligence for physical infrastructure management'.

1 UPS monitoring system
2 Energy management system
3 Battery monitoring system
4 Power supply parameter monitoring
5 Important switch status monitoring
6 Intelligent busbar monitoring system
7 PDU monitoring system
8 Lightning arrester monitoring system
9 Generator monitoring system
10 PUE value monitoring system……
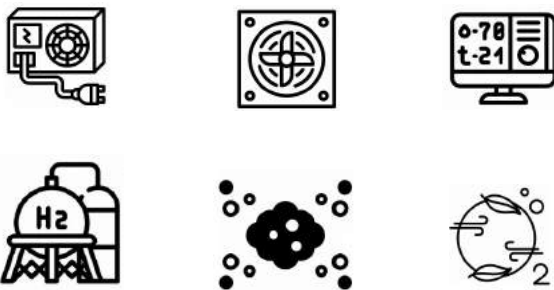
11 Air conditioning monitoring system
12 Temperature and humidity monitoring system
13 Fresh air blower and pressure difference monitoring system
14 CO2 concentration monitoring system
15 Hydrogen monitoring system
16 Dust particle monitoring system ……

17 Video surveillance system
18 Anti-theft alarm monitoring system
19 Access control system
20 Fire monitoring system
21 Server room asset management system
22 Server room IT equipment monitoring system ……

ACEVIG APPLICATION TABLE
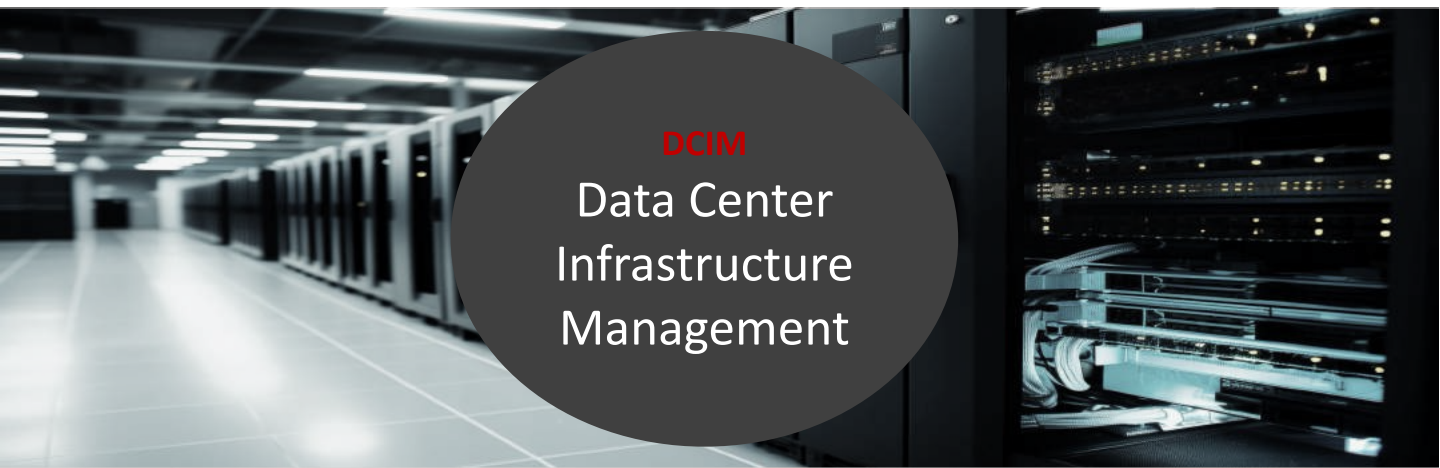
DCIM
Data Center Infrastructure Management

PROBLEM

- Temperature fluctuations, imbalances.
- Power outages, voltage fluctuations.
- Server and storage device failure.
- Illegal intrusion.
- Dust and particulate pollution.

SOLUTION

Ensuring seamless operation of data center systems should be a primary concern.

AceVig provides IDC-level data center DCIM systems and dynamic environment monitoring systems for conventional server rooms, covering power, environment, security, asset management, etc., to achieve centralized network management.

Integrated Cabinet & Micro Module Server Room

PROBLEM

- Local overheating or uneven cooling.
- Abnormal humidity causes short circuits and static electricity.
- Electricity failure.
- Equipment failure or performance degradation
- Not enough cabinet space.

SOLUTION

Server cabinets or racks play a key role in data centers as they host a large number of servers and other IT equipment. We provide customized services for relevant production factories and service providers, and can quickly assemble on site.
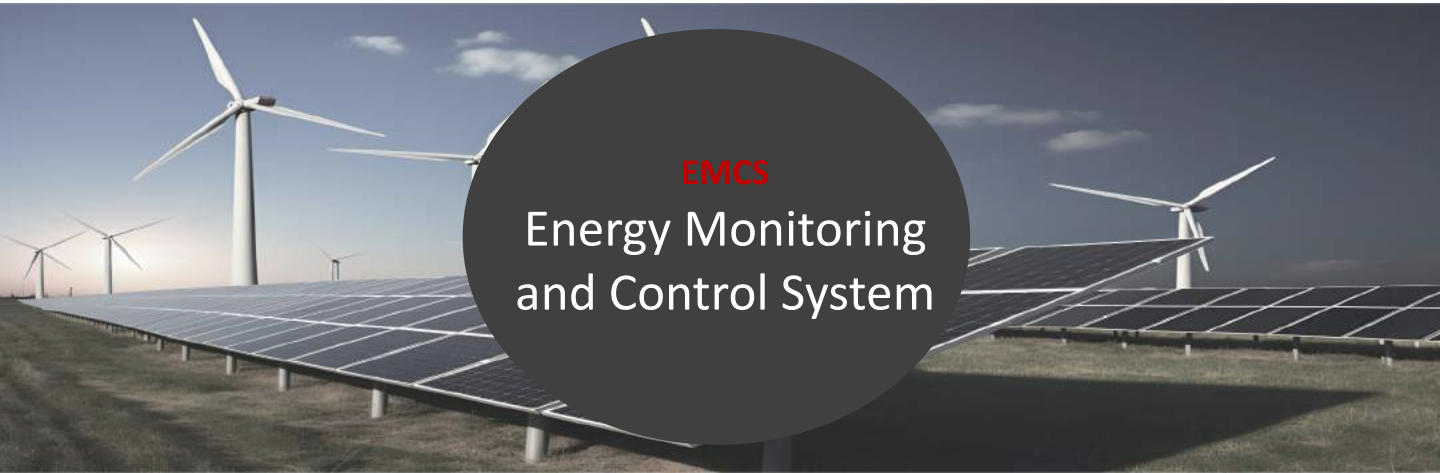
ACEVIG APPLICATION TABLE

BMS
Building Management System

PROBLEM

- Operation equipment failure and low efficiency.
- Unreasonable energy consumption control.
- Fire, electrical accident.
- Integration and interoperability between subsystems.
- Information and personnel security.

SOLUTION

Different from traditional building intelligent control (BMS) systems, AceVig BMS adds intelligent sensors to security, realizes auxiliary management of building facilities, and can be seamlessly integrated with other systems.
Centrally manage the building environment such as energy consumption, lighting, light control and vibration of electromechanical equipment.

EMCS
Energy Monitoring and Control System

PROBLEM

- The equipment is in a state of high energy consumption for a long time.
- Old facilities have low energy efficiency.
- Serious waste of energy.
- Energy management is not transparent.
- Unstable energy supply and security risks.

SOLUTION

Centralised consumption monitoring of water, electricity and gas for industrial manufacturing parks, commercial buildings and residential areas. The AceVig EMCS system provides visual graphs and charts through data analysis, providing a basis for decision-making on billing and energy savings.

ACEVIG APPLICATION TABLE
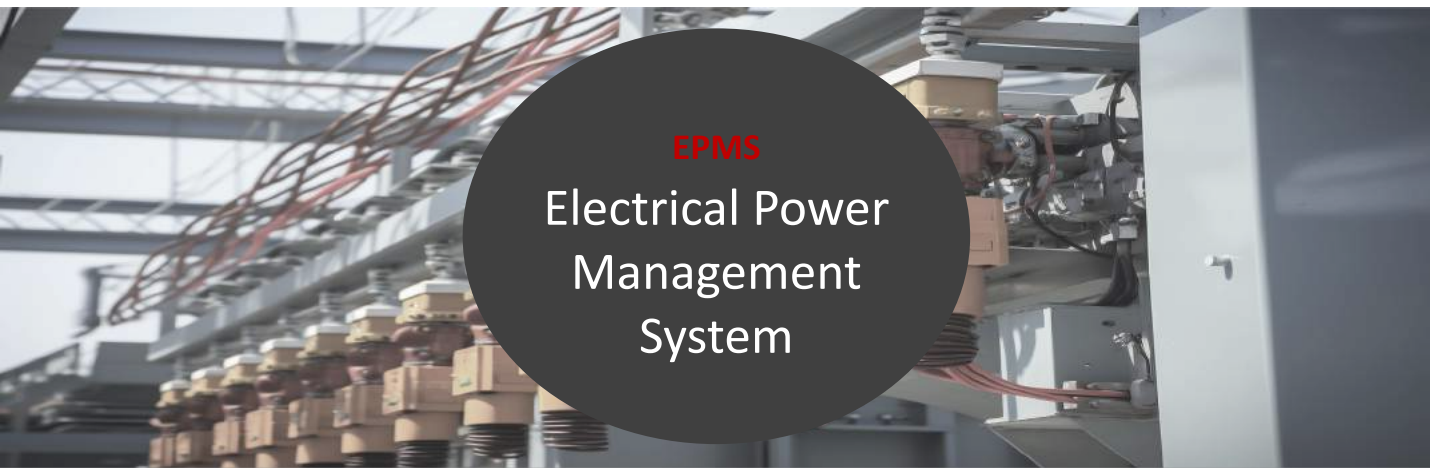
EPMS
Electrical Power Management System

PROBLEM	SOLUTION
Transformer failure.	Provide online monitoring systems for computer rooms, substations, distribution rooms, communication base stations, battery banks, etc. Modular monitoring products can achieve rapid deployment, provide solutions for energy storage management and new energy interaction, and assist in safe power production.
The operation of high and low voltage switchgear is unstable.	
Busbars and cables overloaded and overheated.	
Generator operating abnormally.	
On and off conditions of circuit breaker and isolation switch.	

EMS
Environment Monitoring System

PROBLEM	SOLUTION
Harmful gas release.	Provide all-round and efficient monitoring and management of temperature and humidity, light level, harmful gases such as carbon monoxide, carbon dioxide, hydrogen sulphide, ammonia, combustible gases such as methane, air quality, liquid leakage, etc. in laboratories, archives, various warehouses, underground pipeline network equipment and environment.
Gas pipe leak.	
Contaminated water leakage.	
Abnormal water supply and drainage.	

ACEVIG **APPLICATION TABLE**

IoT
Internet of Things

PROBLEM

Abnormal soil moisture and temperature.

Excessive water pollutants.

High temperature of cold chain cargo.

Wind speed and direction warning.

SOLUTION

Using NB-IoT, Lora, 4G/5G and other IoT monitoring technologies, it senses and monitors environmental parameters and equipment operating conditions, and transmits data in real time to the cloud or local servers for processing and analysis. It serves building edge monitoring, agriculture monitoring, water environment monitoring, logistics cold chain monitoring and weather station monitoring.

AceVig intelligent monitoring
make energy more efficient
for the earth to guard the green life

AceVig® EMBEDDED/ SCADA / HMI / IoT
Cowin Monitoring Management Software

	Embedded Software	**Industrial SCADA Software**
Monitor host	AceVig Cowin-RTU	AceVig Cowin-DAM or other any brands
Operating system	/	Windows 2000, XP, windows 7, windows 10, windows server
Browse	Web page, Mobile app	Computer software, Web pages, Mobile apps,
Applicable scene	Simple projects	Complex projects

Local Software View   **Embedded View**   **IoT View**

The Goal of ACMM Software

Bridging the gap between infrastructure and management

Control Level:
On-site or remote control specialists track data in a highly ergonomic and secure environment while controlling process performance in real-time and ensuring business continuity.

Operational level:
Functional managers can optimise operations, energy and assets across multiple sites with intelligent analytics tools and planning capabilities.

Corporate level:
Top executives save resources across the organisation by choosing the best solution to meet business objectives, effectively driving corporate and environmental sustainability strategies.

Improving energy efficiency

Saving money

Optimising facilities

Transparency of information

Automated analyses
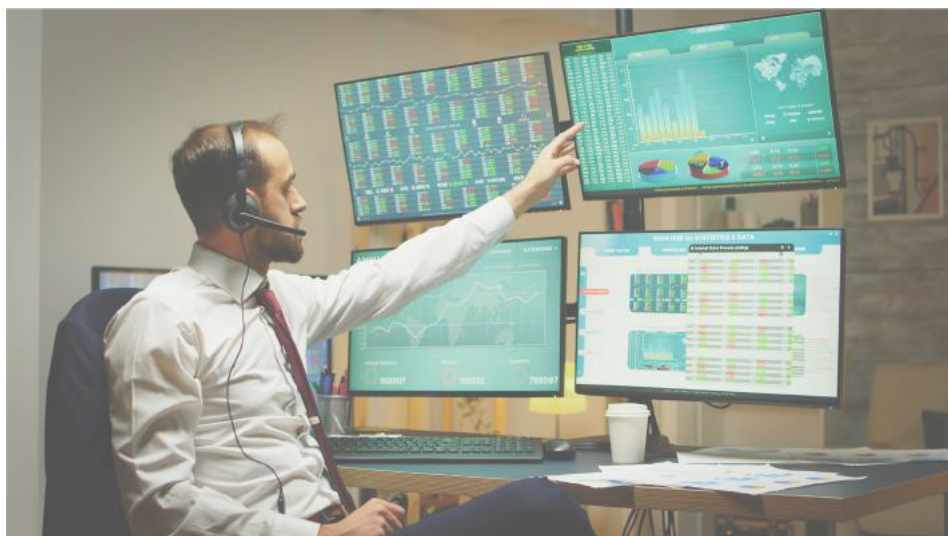
The Advantages of ACMM Software

Intelligent dynamic monitoring system for peace of mind

▥ Multiple Project Structures

ACMM software can support hundreds of different site integrations across floors or locations, from simple individual projects to complex master-subsite projects.
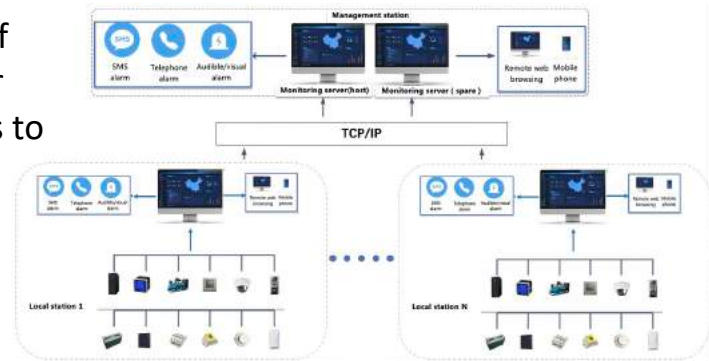
◨ Flexible and Open Architecture

The scalable software architecture and modular design allows you to customise the suite to meet unique business needs. Additional monitoring, operations, capacity and change modules scale in tandem with changing business needs. It integrates easily with third-party products and legacy systems.

▦ Standard and Customised Versions

The standardised software provides a quick installation and operation after the equipment is measured and counted. The customised version of the software is tailored to the actual needs of the project and the client's brand tone.
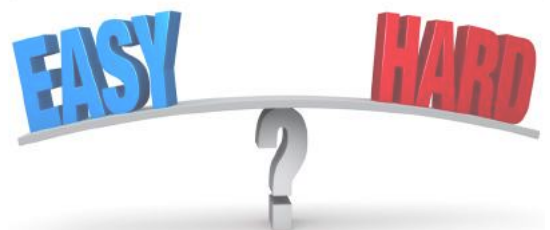
The Advantages of ACMM Software

Intelligent dynamic monitoring system for peace of mind

Multi-Vendor Support

Support for multiple device protocols such as Modbus, SNMP and OPC enables monitoring of any networked device from any manufacturer.

SNMP, API (http), OPC, ModbusTCP
Webservice, ODBC, database interface......

Upward integration
(Northbound)

AceVig Cowin
SCADA

Downward integration
(Southbound interface)

IEC 103	RS485	SNMP V1/V2/V3
DLT645	RS232	Modbus RTU
CJ/T 188	RS422	Modbus TCP
protocol	M-bus	Modbus Ascii
CDT protocol	TCP/IP	General
OPC		electricity
BACnet		agreement
BACnet IP		ODBC
		DDE
		Http
		API
		Socket
		....
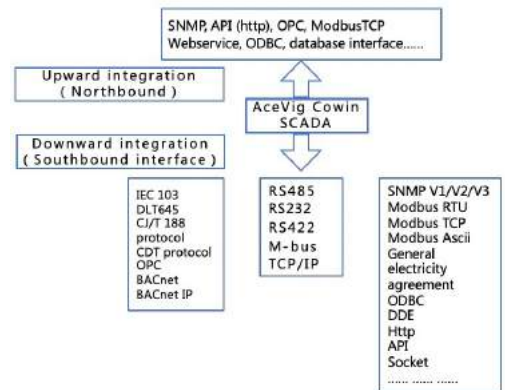
Stable Operation

When the number of monitoring devices reaches 9999, the number of connected clients reaches 200, and the number of substation locations reaches 200, the alarm time is less than 5 seconds, and the startup and shutdown of the system does not exceed 2 minutes.

Absolute Price/Performance Ratio

One-time perpetual licence with no excessive extra packages, making it easier for you to control costs. 20 years of project experience integrated into every technical detail, with product quality recognised in the US and European markets, creates a superior price/performance ratio.

Advanced Alarm Functions

The advanced alarm management system allows you to send alarms with a variety of utilities such as screen displays, emails, web browsers, telephone voice and mobile phone SMS to ensure that administrators are kept abreast of the situation.

The Advantages of ACMM Software

Intelligent dynamic monitoring system for peace of mind

🖼️ User Account Management

Users can be classified into different groups according to permission levels. The scope of work for each permission level is defined by the administrator. These jobs include visible access levels to layout diagrams, device controls and system operations.

📅 Customised Reports

ACMM software provides reports that provide a transparent view of key performance indicators and advice on how to resolve issues. It is available in a variety of file formats (html, csv, excel, and pdf) and can be easily shared by all parties involved.

💾 Storage and Backup

It can store all historical events and data in its database. Users can use this data for analysis. In addition, the database can be automatically backed up according to user preferences.

⬇️ Databases

Supports most databases such as MS SQL, MySQL, Sybase, MS Access, Excel and ERP/MES systems.

Easy and Quick Standardised Solutions of ACMM Software

Integrated Management
Live View Display
Alarm Flashing Display
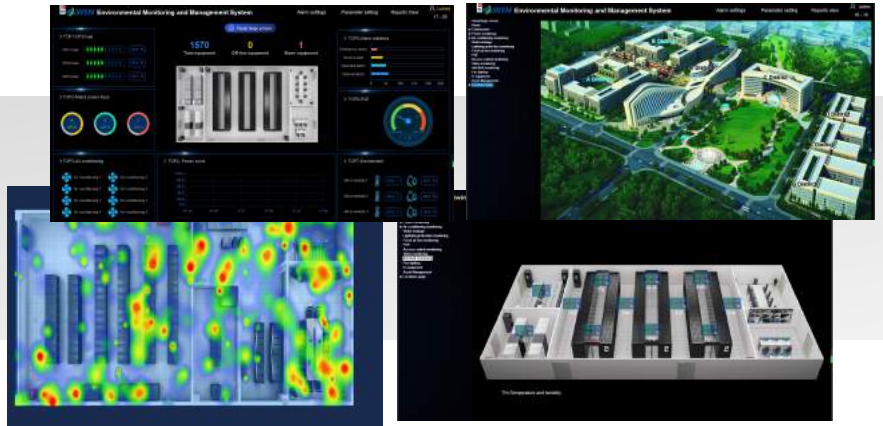
Distribution Switch Monitoring

PUE Monitoring

Power Meter Monitoring

UPS Monitoring

HVAC Monitoring
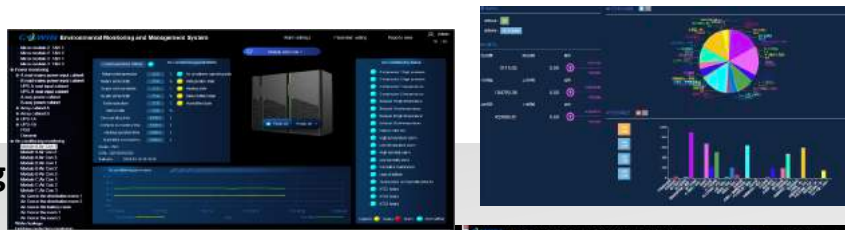
Energy Consumption

U Assets Management
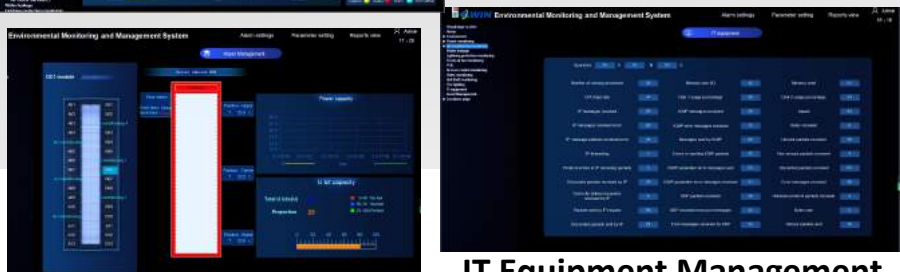
IT Equipment Management

Ace**◢ig** ® **EMBEDDED/ SCADA / HMI / IoT**
Cowin Monitoring Management Software

Flexible and Efficient Customised Solutions of ACMM Software

Intuitive Dashboard
Operation Summaries

Power Monitoring
Single Line Diagram Support
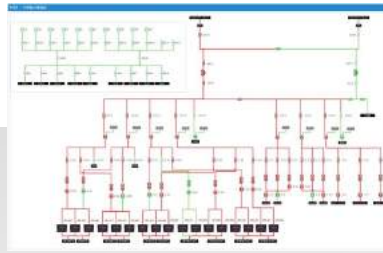
Real Image Isometric
Graphical **User Interface**

Comprehensive Sub -System Interface oversight
from CCTV to Existing BMS,
from HMI to SCADA, from People to Fires

Intuitive Dashboard
Operation Summaries

Various Reports Generation
Billing and Operation Supports

**Rack-level Cooling & Power
Capacity** Management
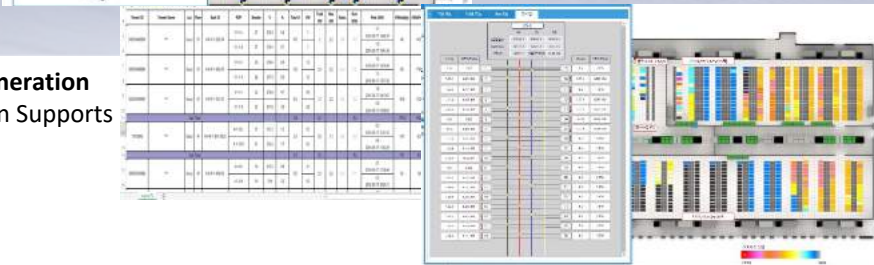
**Precise Definition
of Brand Tone**
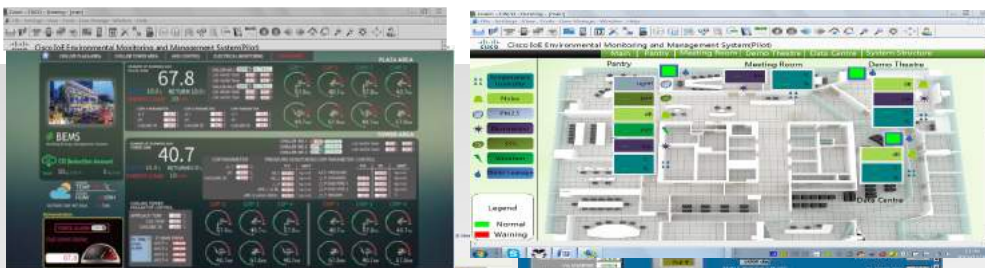
**Rich Graphic
Design and Matching**

Acevig®

Introduction

Cowin-RTU is designed with embedded ARM architecture and Linux operating system. This hardware integrates a rich set of acquisition interfaces that can be integrated with any third party sensors and devices. It supports data acquisition and analysis, linkage control, report browsing, etc., and notification methods such as sound and light, SMS, email and telephone alarm. It can be used for monitoring equipment or small facilities, and is suitable for a wide range of industrial and commercial applications.

Features

1. Installation and deployment can be completed in one to several hours, and is low-maintenance and user-friendly.

2. Built-in WEB server allows you to use the HTML interface of any web browser and supports mobile apps.

3. Open standard protocols, SNMP, HTTP, ModbusTCP and other interfaces to forward data.

4. The graphic user interface is colourful, and the user interface is based on the Internet, so no software installation is required.

5. Alarms are received within 2 seconds in case of abnormal conditions.

6. Dual power supply for 24-hour operation. Automatic fault recovery function.

7. No limit to the number of devices that can be accessed, supporting tens of thousands of measurement points.

8. When a device or sensor is connected to the unit by wiring, it can monitor devices up to 1,000 metres away from the unit.

9. Suitable for single-location, cross-floor, and proximity multi-location projects.

Application

- Data Center
- Manufacturing Process
- Telecommunication
- Fire and Security
- Energy Efficient & Power
- Environment
- M&E Facility Management

Technical Specification

Front View

Cowin-RTU

① ② ④ ③

Rear View

⑤ ⑥ ⑦ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ ⑬ ⑫
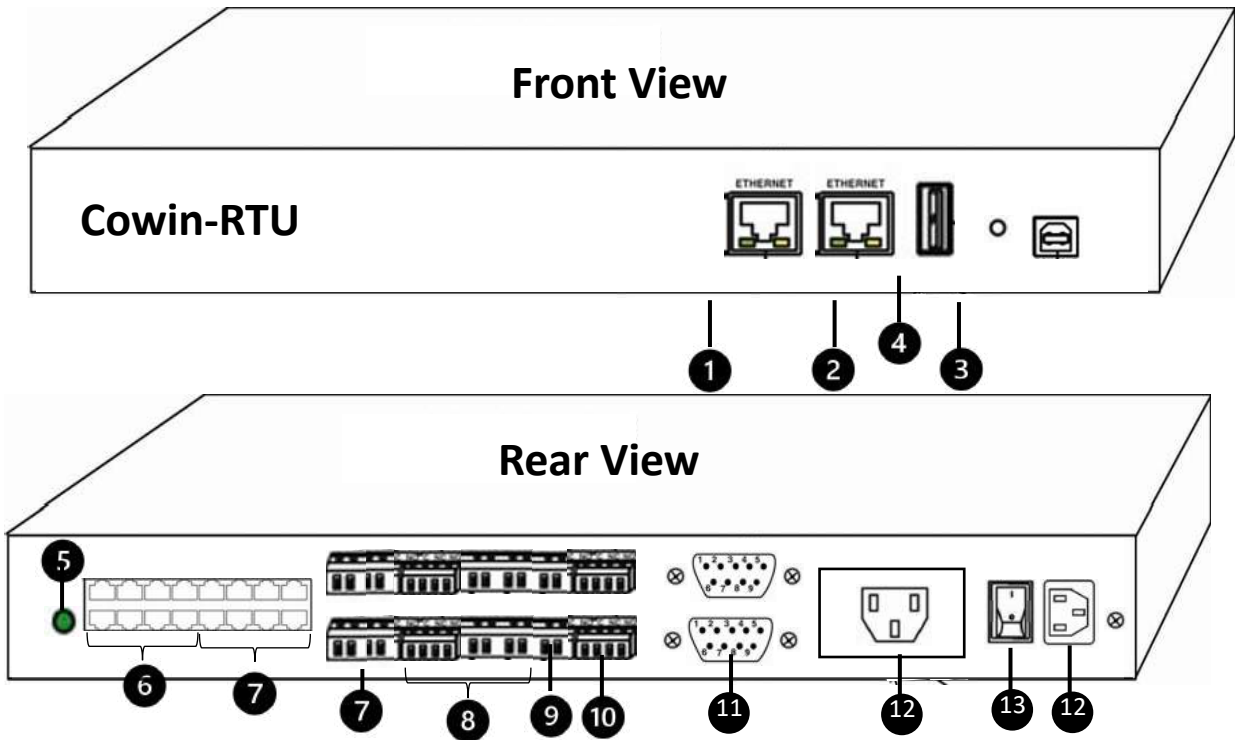
1） **Ethernet Jack** : 2 100M/10M Ethernet ports for connection to a Local Area Network (LAN) for remote configuration, monitoring, and control

3） **Console** : For connecting USB cable for serial connection of a terminal to control the system.

5） **PWR** : Status Indicators, Power indicator, Operation indicator, System indicator.

7） **DI** : 12 DI ports, 8 of them are RJ45 ports, support 12VDC power output, 4 of them are terminal ports .

9） **AI** : 2-channel 4-20mA terminal port.

11） **2 RS232 ports**.

13） **Switch Button**

2） **USB** : 2 USB ports for connection of USB compatible devices.

4） **Reset System Button**

6） **RS485** : 6 RS485 ports, support 12VDC power output.

8） **DO** : 6 DO ports, 2 of which support 12VDC power output .

10） **Power Output Port** : 4-channel DC12V; Total power <3A; Terminal port.

12） **Power Supply Port** : Default single 85V ~264VAC & DC120~370VDC; (optional dual AC 220V) .

SMS alarm   Telephone alarm   Audible/visual alarm

Remote web browsing   Mobile phone

Water Leak

PACU

Fire Suppression

Temperature/Humidity

Power Quality

UPS

Battery Bank

Security

Acewig ®
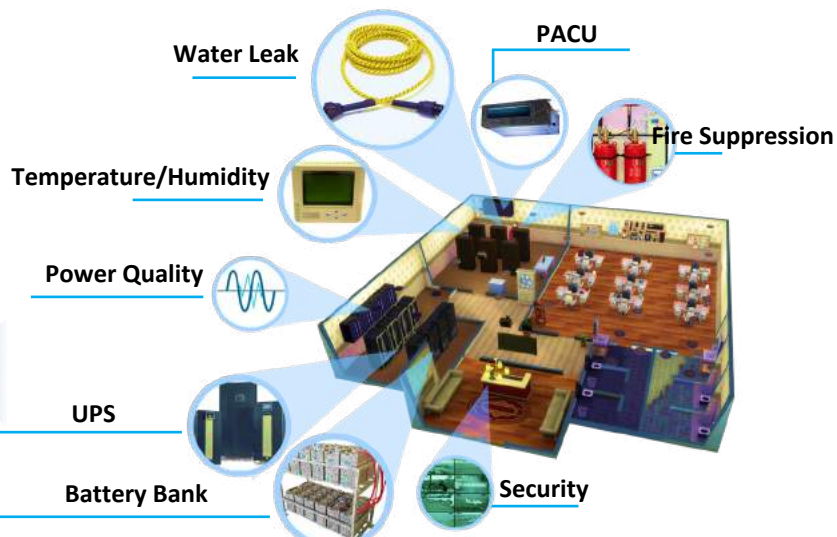
Model: Cowin-I7063D
Function: Switching output and collecting dry contact switching quantity
Advantage: 4-channel relay outputs, 6-channel dry contact inputs

Model: Cowin-RS
Function: Communication conversion module
Advantage: In the RS485 network, can access up to 2048

Model: Cowin-RoTek
Function: Liquid leakage detection equipment
Advantage: Anti-surge protection, 4-speed responsive switching, automatic reset

Model: Cowin-WLD
Function: Positioning leakage controller
Advantage: MODBUS RTU protocol, monitoring distance 1500 metres, leak location display, alarm log storage, local buzzer alarms

Model: Cowin-TH
Function: Wireless temperature and humidity sensor
Advantage: SHT probe, LPWAN wireless communication, ultra-low power consumption, measurement resolution 0.1 ℃, ± 1% RH

Model: Cowin-LoRa
Function: Wireless temperature and humidity sensor gateway
Advantage: Management of ≤ 240-channel wireless sensor data, Modbus-RTU protocol, RS485 port, working environment -20 ℃ ~ +80 ℃, ≤ 90% RH

Model: Cowin-I
Function: Battery monitoring module
Advantage: Maximum monitoring of charging and discharging current and temperature of 300 batteries, MTBF up to one million hours.

Model: Cowin-BAM
Function: Battery detection and acquisition host
Advantage: Maximum number of batteries to be monitored is 960, with RS485 and 10/100M network port, supports MODBUS/RTU, MODBUS/Cowin-TCP and SNMP.

Model: Cowin-RS485
Function: Intelligent air conditioner remote control
Advantage: Remote monitoring and control of any brand of common air conditioner, infrared remote control, 64 self-learning commands.

Model: Cowin-H2
Function: Hydrogen detector
Advantage: High-definition colour screen key operation. Remote monitoring, alarm reminder and threshold setting by mobile phone/computer. Can control fans, alarms, solenoid valves, etc.

Acewig ®

Model: Cowin-ZY
Function: Noise sensor
Advantage: Industrial standard output, measuring range 30 ~ 130dB, accuracy ≤ ± 1.5dB, resolution 0.1dB, stability ≤ ± 1 %FS

Model: Cowin-RACK
Function: Cabinet U-level asset management module
Advantage: Used for cabinet capacity, IT equipment security, asset location and identification.MC-RFID magnetic field positioning, accuracy 99.999%. Lifespan greater than 10 years.

Model: Cowin-DAM
Function: Industrial-grade monitoring host
Advantage: Made of galvanised steel, Intel chipset and quad-core four-thread processor. 4 RS-232 DB9, 6 RS-485 ports. Reserve 12 groups of DC, 6-way DI, 4-way DO port.

Model: Cowin-PORT
Function: Multi-function embedded controller
Advantage: TCP Real Port/TTY driver compatible with existing software, TCP Server, TCP Client and UDP transmission modes. Windows management software is included.

Model: Cowin-EASY
Function: 1U Embedded controller
Advantage: 4 DO, 8 DI, 4 RS232/485/422 serial ports. Support SNMP. Windows management software included. 2 10/100M Ethernet ports. 4 12V power outputs.

Model: Cowin-SMS
Function: SMS alarm module
Advantage: Management of ≤ 240-channel wireless sensor data, Modbus-RTU protocol, RS485 port, working environment -20 ℃ ~ +80 ℃, ≤ 90% RH

Model: Cowin-TEL
Function: Telephone alarm module
Advantage: DSP processing structure. Dual Tone Multi-Frequency (DTMF) key detection, identifying or generating audio signals of any frequency. With ST-BUS and MVIP-BUS bus.

Model: Cowin-TEL/SMS
Function: SMS phone voice integrated alarm
Advantage: Intelligent alarm service module supporting voice synthesis, SMS reception, WEB management, multi-protocol interface, and multi-communication methods.

Model: Cowin-SCREEN
Function: 10.1' Touch controller
Advantage: : 1280*800 high resolution, IPS full-viewing angle LCD screen. Acquisition, touch control, display, alarm, to achieve human-computer interaction. Support mobile phone remote browsing.

Model: Cowin-CB8
Function: : 8-Channel lighting control module
Advantage: 8-Channel normally open relay. Surge resistance up to 170A or more. Mechanical durability up to 10 million times.

After-sales Service
AceVig's Worry-Free Software Services

Software Installation

- Our software installation services reduce the time required for deployment and increase your efficiency.

- We perform installation and registration according to manufacturer's specifications using industry best practices for repeatable implementation.

- This service is provided by technically experienced and certified on-site or remote service engineers, ensuring that all software products are properly installed and ready to meet your changing monitoring needs.

Software Configuration

- By quickly and accurately configuring the system to simulate your unique environment, you will benefit from the outstanding features and benefits of the tools in the software. By doing so, you'll be better able to make important decisions and save time and money.

- Our services take care of the full deployment of your software, providing you with the data you need to run efficiently today and plan for future growth.

Software Integration

- Software Integration Services provide planning, design, and project management services for integrating AceVig's management monitoring software products into existing systems, allowing you to customise your view of current applications.

- Our technically experienced and certified software engineers will apply industry best practices to integrate or improve the AceVig Management Platform to fit your unique organisational needs.

Software Training

- Do you want to gain an in-depth understanding of the AceVig Management Platform and have the knowledge you need to make sense of it in your practice? If so, our software training service will provide you with expert training where you will learn operational excellence and problem-solving best practices to maximise your investment.

For additional information about AceVig and its globalisation solutions,
please visit our site: www.acevig.com

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