

azbil**savic-net™ G5**

Building Management System

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Azbil Corporation
Building Systems Company

<http://www.azbil.com>

azbil

Introduce a Building Management System that Achieves Energy Efficiency, Low Running Costs, and Fully Open System-Architecture. Deliver products of Japan Quality to answer the IoT needs.

savic-net™G5, the latest advance in building management systems, builds upon Azbil's proven achievements throughout the evolution of building environments, and incorporates cutting-edge IoT, AI, and big data technology. Azbil continues to create advanced solutions that balance energy efficiency, comfort, and safety, now with a new type of building management that allows input from everyone connected with the building.

User-Friendly

savic-net™G5 was developed with usability in mind and is our friendliest system to date, accommodating users of all levels. An all-new tablet/mobile interface allows users to monitor their systems anytime, anywhere.

Energy Saving

Azbil has extensive experience as an energy solutions provider. We optimize every facet of your building's energy consumption to reduce both energy use and CO₂ emissions. With savic-net™G5, it helps building owners cut cost while creating comfort for people and the planet.

Integrated Management

An open system-architecture makes wide-ranging connectivity. Take full control of all of your data across different systems in one place. This data helps you manage facility maintenance and provides valuable information for building management.

Japan Quality

As a leader in building management systems, Azbil has consistently earned the reputation from clients, providing the reliability and safety under Japanese standard to deliver optimal performance.



Hardware



Software



Our Designs blend Style with Ease of Use. Controllers designed for small sizes, offer superb visibility and functionality.

Every controller is designed for ease of use. By separating the controller unit and the I/O modules, we have eliminated conventional location constraints. Simply configured connectors and LED indicators set on the face of the units, improve on-site operating efficiency.



DESIGN AWARD 2017
reddot award 2017 winner
Azbil's Supervisory Controller and its BACnet Advanced Controller & Advanced Remote I/O Module are the recipients of the IF Design Award and the Red Dot Award: Product Design 2017.*

Install Anywhere

I/O modules can be installed in the optimal location near field equipment, as well as allowing compact panel and cutting installation costs.

Increased Efficiency

LED indicators on the face of controllers display feedback from equipment and start/stop output to equipment, making on-site status checking easier and improving work efficiency.

Multi-Purpose Use

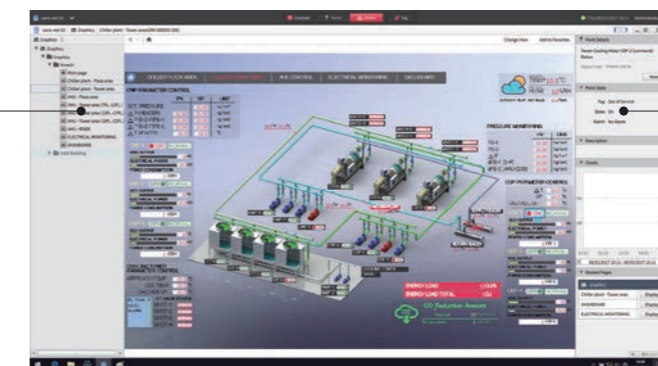
Universal inputs can be used for electric current, voltage, resistance, and digital signals, which allow you to use a single device for a variety of purposes. Less equipment types, smaller inventory for the spare parts.

A Friendly, Intuitive, and Impressive Smart user interface guarantees convenience for operators.

We have designed a user interface that allows anyone-regardless of background or experience-to easily take control. Even first-time users will feel right at home. Our system ensures administrative ease and quick access to the information you need.

Operation support functions for system administrators Menu Pane

Users can configure custom menus according to floor, system, and function categories as well as freely layer and group the contents.



Operation support functions for general administrators Utility Pane

Users can operate equipment and devices or view information by selecting on the graphical interface. The system guides users to the next required action naturally by displaying necessary screens or information.

Graphics

Plan views, cross-sections, system diagrams, etc., can be displayed using 3D or animation. Users can control equipment on screen, starting and stopping operations or changing settings.



Dashboard



Chart

*The IF Design Award is conferred by IF International Forum Design GmbH, based in Hannover, Germany, and has been one of the world's most respected awards since 1953. The Red Dot Award is an internationally recognized design prize awarded in Germany since 1954 by Design Zentrum Nordrhein Westfalen.



Product



System

Azbil offers versatile and highly reliable products for all types of buildings everywhere.

From the sensors and valves to the controllers and central units, Azbil develops its technologies in-house. Our wide-ranging product lineup offers practical solutions to meet the customer's needs.

Supervisory Stations

Full integrated system monitoring, control, and management.

 Building Management System (BMS)	 Supervisory Controller	 Energy Management System (EMS) • Energy Management • Maintenance Management • Tenant Management
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Controllers

The Latest Controllers, for Smarter Facility Control

 General Controller	 Compact Remote I/O Module	 Advanced Controller for HVAC/chiller/pump	 Advanced Remote I/O Module	 Inflex™ VC for BACnet VAV Controller
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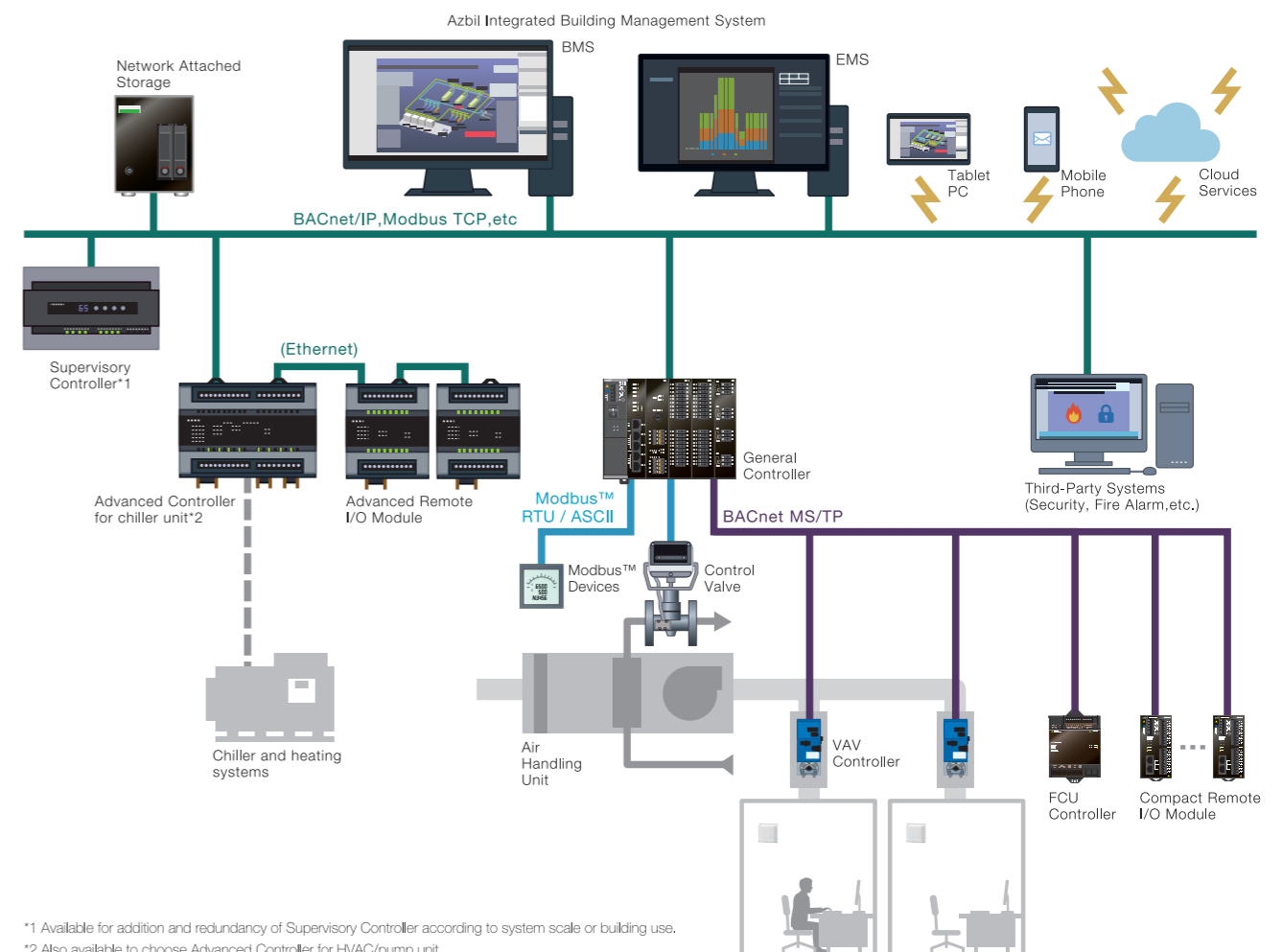
Field Devices

Azbil's Reliable Brand of Valves and Sensors

 ACTIVAL +™ Flow Measurement and Control Valve Valve, Sensor, and Flowmeter, all-in-one.	 ACTIVAL™ Motorized 2-Way Valve with Flange Connection	 ACTIVAL™ Motorized 2-Way Ball Valve with Threaded Connection	 Insertion Sensors	 Room Sensors
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Open system-architecture allows you to integrate or share facility data anytime. The result is improved monitoring and reduced operating costs.

An open system, supporting BACnet and Modbus™ etc., consolidates data from all kinds of facilities for easy management and analysis of operating conditions and energy consumption. Utilizing an autonomous distributed control system, controllers avoid the risk of a whole system failure by operating independently in the event of a system shutdown.



*1 Available for addition and redundancy of Supervisory Controller according to system scale or building use.
*2 Also available to choose Advanced Controller for HVAC/pump unit.



Energy-Saving Applications

Optimize energy consumption and reduce energy costs for any kind of buildings.

The system includes a wealth of energy-saving applications for buildings—from offices, hotels, and shopping centers to hospitals, laboratories, and educational facilities. Reduce more costs by combining applications according to your building's characteristics.

<p>VAV Optimum Control</p> <p>Minimize static pressure with variable air volume (VAV) airflow control. The supply air temperature is also optimally controlled.</p>	<p>Outdoor Air Cooling</p> <p>When outdoor air cooling is judged to be effective, take in outdoor air for cooling to achieve energy savings by effectively using natural energy.</p>	<p>Minimum Outdoor Air Intake</p> <p>By measuring room CO₂ density, minimize outdoor air intake and reduce outdoor air load 40 to 60%.</p>	<p>AHU VSD Control</p> <p>Control AHU fan VSD without sacrificing a comfortable room temperature.</p>
<p>CO₂- Minimizing Control</p> <p>Control the number of chillers in operation in order to minimize CO₂ emissions or total operating costs of the heat source system.</p>	<p>VWV Control (Variable Water Volume)</p> <p>Decrease the VSD output of distribution pumps as low as possible, without affecting indoor environmental comfort.</p>	<p>VWT Control (Variable Water Temperature)</p> <p>Automatically control chiller outlet temperature to achieve more efficient operation of chillers.</p>	<p>Energy Demand Control</p> <p>Control total building peak load by reducing energy consumption per AHU.</p>
<p>OSS Control (Optimum Start/Stop)</p> <p>Predict the rise and fall of temperature in order to start/stop air handling units and chillers at the optimal times and eliminate unnecessary operation.</p>	<p>Duty Cycle Control</p> <p>To reduce electricity and energy use by air handling units and chillers, operate active air handling units intermittently while keeping the indoor environment comfortable.</p>	<p>Parking Lot Ventilation</p> <p>Control ventilation fan air volume to prevent parking lot CO density from rising.</p>	<p>Power Demand Control</p> <p>Based on estimated power usage from current usage conditions, shut down or restart equipment to avoid exceeding the target power usage.</p>



Remote Maintenance

Remote maintenance services deliver the fine-tuned support that you need, including system diagnosis and data analysis.

Azbil automatically collects, analyzes, and diagnoses data from your building management system remotely. We can analyze and provide reports on alarm occurrences, energy consumption, indoor comfort evaluation, and more. This information can be used to plan improvements in energy conservation and equipment operation.

Alarm Occurrence Analysis

BMS alarm analysis on Aug-2016

These 2 tables show the number of alarm of each month in Building management system from January to August in 2016 and these 2 graphs show breakdowns classification by alarm type.

2-1 Summary

2-1-1) Total number of alarm

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Number of alarms	85	100	71	70	62	72	82	1928				

In 2016, 2893 alarms occurred on average in a month. January has the largest number of alarm in this year.

2-1-2) Breakdown of alarm on Aug-2016

Graph1. Breakdown of alarm level

Graph2. Breakdown of alarm type

Graph3. Breakdown of alarm location

Energy Consumption Analysis

Electricity energy consumption report(2/2)

Graph3. Electrical energy cumulative bar chart by category on Aug-16

Comfort Evaluation

Room temperature difference weekly color chart upon VAV operation

Period: 1/9/2016(Thu) - 7/9/2016(Wed)

Maintenance Services

We provide assistance for building maintenance. Monitor the facilities and data remotely, check for signs of trouble and prevent problems to ensure the long service life of your facilities.

Energy Efficiency

We analyze the collected data and propose solutions to improve energy efficiency. We work together with clients to solve any energy-related issues.

Building Operation Support

We support clients' routine work such as preparing reports, assessing tenant comfort, and evaluating the control performance.



We deliver systems of Japan quality, backed by a track record of achievement.

Our systems are built to uncompromising Japanese standards for comfort and safety, and are suited for all types of buildings. Azbil's over a century history parallels the evolution of building environment. In addition to the experience gained through more than 25,000 installed systems, we now provide solutions that incorporate advanced IoT, AI, and big data technology.



Quality You Can Trust

Azbil is the long-time leading provider of building management systems. We design and develop our high-quality products in Japan. Our reliable operation and long-term maintenance support have earned the trust from customers.



Product Reliability and Stability

Azbil's R&D center in Japan accumulates building management system know-how, and designs products with assured reliability. All of the products are manufactured according to strict quality control standards in our ISO 9001 certified factories.



Long-Term Parts Supply

We provide free software upgrades so that our clients can always keep their systems up to date (exclude the case of personal computer OS updates). Replacement parts are in stock for 10 years after system handover, assured by our long-term maintenance parts supply system.

With its reliable worldwide network, Azbil delivers unparalleled service to customers wherever they are.

Azbil, a leading building management system company, designs advanced solutions that provide safety, security, comfort, and energy efficiency for buildings everywhere.

