MellowMatic

Mellowmatic is a cutting-edge smart building platform that operates on an IP-based system. This platform provides the building owner and tenants with the flexibility to manage sensors, devices, and operational workflows both within the building and across the entire organization's IT operations. By utilizing Mellowmatic, a new category of intelligent corporations can emerge that leverage smart buildings and consequently, transform into digital workplaces.

One of the key benefits of Mellowmatic is its compatibility with all types of IP-enabled smart devices. Additionally, it is also able to support older smart building serial-based connected protocols, such as ModBus or BacNet, through TCP/IP gateways.

Managing Mellowmatic is easy through its user-friendly web application console. Furthermore, Mellowmatic is compatible with any brand of sensor or smart device, regardless of the connected protocol. As a result, Mellowmatic can be an excellent tool for upgrading existing buildings or constructing new smart building projects from the ground up.

Smart Building Solutions

Building Automation

Mellowmatic serves as an operating system designed for smart buildings. It consists of a core module and optional modules that allow for scalability based on specific needs.

The core module, Mellowmatic Building Management System (BMS), offers the capability to upload building models by floor on demand. It enables the addition of devices and sensors to each floor, and the connection of each sensor and device with a policy rule to generate a chain of desirable outcomes. For instance, upon Staff A's entrance into the building, the HVAC system in their office can be set to automatically turned on and the lighting level is adjusted to the optimal level.

Real-time monitoring and equipment control are also possible through direct access to equipment or sensor data. However, the type of displayed data varies depending on the equipment, such as CCTV devices showing video clips or recorded footage, while environmental monitors only displaying air quality levels. Or as in example screen, display status of the door lock, and policy associated with it.

Policy Based

Mellowmatic is equipped with a versatile policy that can utilize data from various sensors or devices within an organization to create business rules. These rules can be executed by interacting with smart devices or by integrating with the operation management of each company to create a chain of actions. Once a rule is matched, the corresponding action will be automatically executed.

Major operational modules for MellowMatic include:

1. Access Control Module: This module offers role-based access control management and uses an organization hierarchy grouping structure to manage access.

2. Organization Resource Management: This module enables the scheduling, assignment, and reservation of all enterprise resources. Mellowmatic includes specific models for Meeting Room Management using the Mellowmatic Meeting Panel, Corporate Vehicle Management, and Equipment resource sharing.

3. Lighting control module: This module supports Phillips IP-Based Lighting.

4. HVAC control module: Together with building environment monitoring, this module enables HVAC control in buildings using feedback control and zoning management to ensure optimal working temperatures for each building zone.

5. Sanitary and pipeline: This module manages sanitary and pipeline functions, including water leak prevention and control.

6. Building PA and Alarm: This module enables automatic scheduling of public announcements and corporate alarms, which can be sent to assigned personnel or via a chain of command.

7. Building Environment Monitoring: This module monitors O_2, CO_2, PM2.5, temperature, external temperature, wind, and weather patterns.

8. Parking Control: This module manages parking using a billing module that can be combined with visitor management for staff, visitor, and public usage. It can also support EV charger scheduling in conjunction with Resource management.

9. Centralized Digital Signage: This module provides IP-based digital signage streaming that is easy to use and can work across multiple geographic sites. It creates solutions for public video program screening.

10. Visitor Management: This module manages visitor aspects for working, including parking, Wi-Fi pass, access control to the office, and access control to corporate data.

11. CCTV and RF-ID control: This module can be used together or separately to create a perimeter for monitoring digital heat maps in the organization. Mellowmatic is compatible with any IP-Based CCTV with standard support and RF-ID sensors in specific areas. Face recognition can be used as a check-in, attendance, or tracking feature from any CCTV head.

12. Energy Control: This module can be used with energy meter, and electric generation device like Solar Cell, or Emergency Generator. It can be used to monitor energy usage status of each zone, and can be automatically reduce energy of the building by reduce system energy like close the automatic curtain, or turn off some of the light in the area that have few usage.

13. Digital Transformation Features: This module includes corporate calendar and project management, workflow, enterprise chat, and digital document management. Additional features are currently under development.

Green Building

DGNB Certification Proof

DGNB certification is based on a comprehensive system of criteria that evaluates a building's sustainability in several areas, including energy and water efficiency, indoor environmental quality, use of environmentally friendly materials, and the building's impact on the surrounding environment.

The certification process includes an independent review of the building's design, construction, and operation, as well as an assessment of the building's performance. Buildings that meet the DGNB's standards are awarded a certification rating ranging from bronze to platinum.

DGNB certification is recognized internationally and is becoming increasingly popular as a way to demonstrate a building's commitment to sustainability.

Our reference client has achieved gold certification for building sustainability under the DGNB certification using Mellowmatic, but our system has the potential to further enhance this achievement and elevate it to platinum level

Access Control:

The system offers a range of identity verification options, such as facial recognition, fingerprint scanning, RFID cards, and QR codes. Additionally, it has the capability to manage different areas of a building through a single platform, and can generate usage data reports in multiple formats. Moreover, the system can be customized to perform specific tasks, such as facilitating registration for building access and providing complimentary WiFi codes.

Vertical Garden / Green facade

MellowMatic's Vertical Farm is an advanced plant cultivation system designed to create green spaces for decorative and environmental purposes in building projects. It is particularly helpful in enhancing the image and environmental quality of high-rise buildings by increasing the green area per room, as required by law. The Vertical Farm is user-friendly and can be installed easily, with minimum maintenance required.

Meeting Panel

A Mellowmatic meeting room panel is an electronic tablet device that is installed outside or inside a meeting room in a building. This panel allows users to easily reserve the room for meetings and other events using a calendar system. The panel typically displays a range of information such as the current and upcoming reservations for the room, the time, date, and available amenities such as audiovisual equipment or catering.
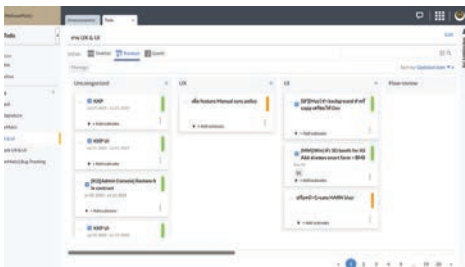

Building Environment Monitoring

Mellowmatic environment monitoring measures air and temperature quality inside and outside the building, which automatically adjusts the building's operating attribute to be in line with the current environment, reduces energy consumption, and provides a good experience for users and residents in the building.

Digital Signage

Mellowmatic digital signage is a system that uses digital displays to deliver information and messages to building occupants. One of the key features of this system is the ability to schedule events via a calendar and use media feeds to display content that has been prepared in advance. To use this system, users can log in to a centralized Mellowmatic console and create an event in the calendar. They can then choose the date, time, and location of the event, and select the type of media feed they want to use. Media feeds can include images, videos, or even live streams from external sources.
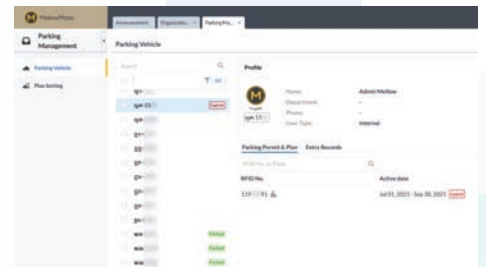
Smart Modules and Operations

Project Management & Workflow

This system enhances collaborative work among personnel within and between organizations, supports customization to match the organization's existing work processes, connects to other systems within the organization to reduce redundancy, and can be applied to various types of workflow, such as customer support or procurement processes that require approval from individuals or e-document requirement support.

Visitor Management System

The Mellowmatic Visitor Management System, when used in tandem with a building's access control system, can effectively limit unauthorized access by tracking the entry and exit of individuals who interact with employees or conduct business on the premises. The Visitor Management System provides various accessible methods for managing visitors, including QR code entry, RFID card reading, and NFC phone.

Parking Management:

Mellowmatic's parking management technology is a powerful tool for modern parking management that offers numerous benefits to parking lot operators and customers alike. Mellowmatic license plate recognition technology can be used in parking management, which involves capturing images of vehicles' license plates as they enter and exit a parking lot or garage using CCTV cameras. These images are then processed by the Mellowmatic module, which reads the license plate numbers and compares them with an authorized vehicle database.

Open End Solution

Whether you are a designer, builder, or project owner, Mellowmatic can assist you in designing your own solution. You can begin by utilizing only the modules that you require initially and gradually expand as your other requirements become more apparent. Mellowmatic is adaptable to any project, including real estate, healthcare facilities, or educational facilities.

Mellowmatic was designed with pay-as-you-go model from the beginning with flexible and cost-effective approach to smart building solutions that can be applied to both cloud-based and on-premise systems. In this model, customers only pay for the services they use, allowing them to scale their systems up or down based on their current needs.

For cloud-based smart building solutions, customers can choose from a range of subscription plans that suit their needs. They can start with a basic plan that includes essential features and then upgrade to more advanced plans as their needs grow. The subscription fee is based on the number of sensors, devices, and users connected to the cloud platform. Customers can also opt for add-on services such as advanced analytics or custom reports, which are available at an additional cost, or on consulting based basis.

For on-premise smart building solutions, customers can purchase a software license that allows them to deploy the solution on their own hardwares. Mellowmatic support both hardware appliance that are specifically tuned for smart building tasks, and virtual server using virtual machine on hypervisor platform like VMware. The Mellowmatic license fee is based on the number of sensors, devices, and users that will be connected to the system. Customers can choose to add additional features or modules at any time, which are available at an additional cost.

Both cloud-based and on-premise smart building Mellowmatic solutions offer the pay-as-you-go model to enable customers to manage their costs more effectively. This model also allows customers to benefit from the latest technology advancements without the need for significant upfront investments. The pay-as-you-go model provides a predictable and transparent pricing structure, which is essential for businesses that want to control their expenses and improve their bottom line.