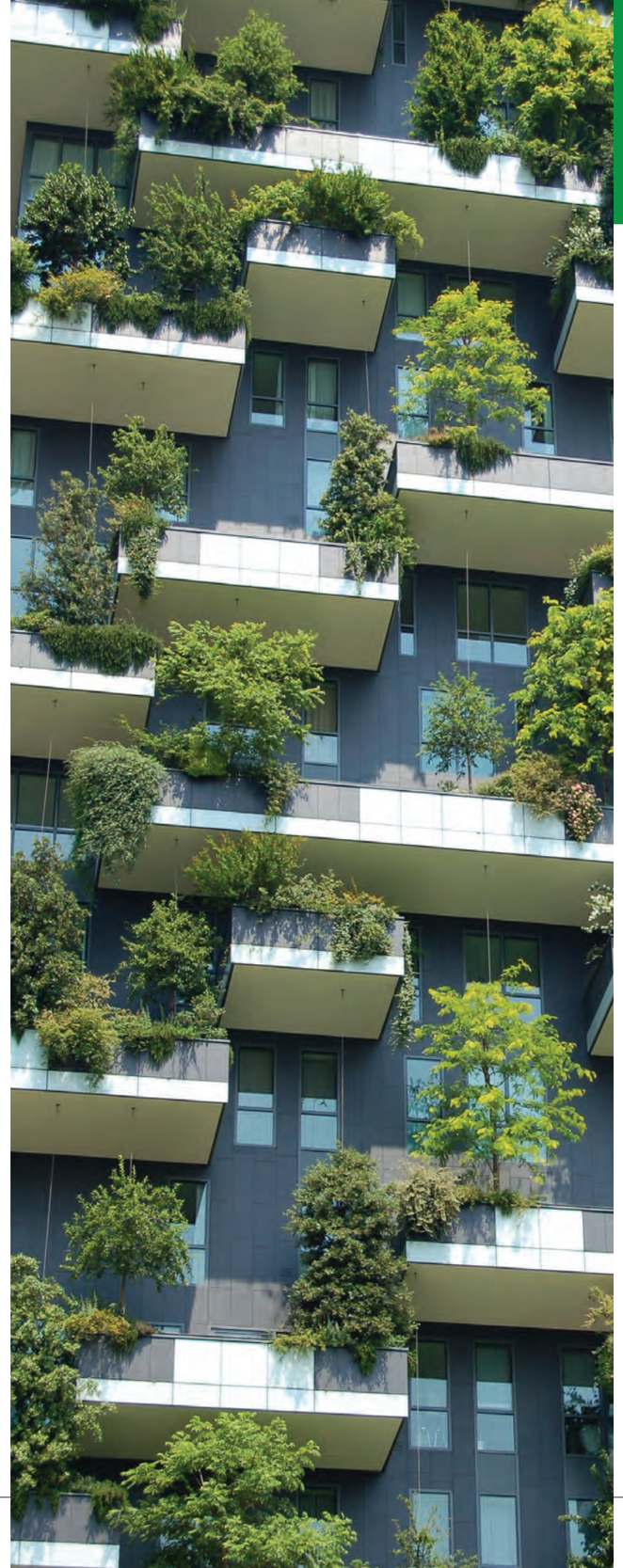
autani
building controls

Controls Application Guide

It's easy with Autani.

Measure, report, control, and optimize energy use in a single building or across multiple facilities, all from an integrated platform. Generate energy savings automatically, year after year. Enhance the comfort and productivity of building occupants. That's the power of Autani. We are an American-based building automation provider that designs, builds, and manufactures lighitng, HVAC and Internet of Things (IoT) sensor platforms for almost any size and type of facility.

You can utilize just one of these Autani Solutions – or all of them – because they're designed to work seamlessly together so you have exactly the technology you need.



Contents

What goes into a Smarter Building?

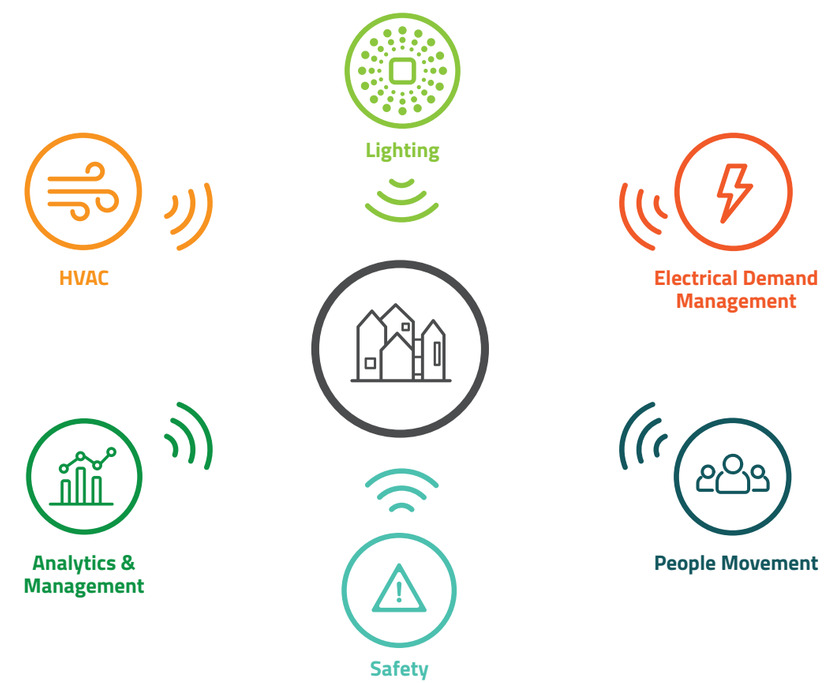
Here is what you need to know

A "Smarter Building" provides better insights and data to help you manage your business more effectively. What gets measured can be improved upon, and this guide is an overview of what Autani can do for you.

Autani makes your existing building systems smarter by integrating your existing lighting and HVAC systems into a seamless wireless backbone that brings your building to life. Our systems are flexible, adaptable, and resilient, aligning your business goals with the operational demands of your building infrastructure, which ultimately impacts your bottom line.

Through smart building automation, business owners can reduce expenses, improve the quality of their environment, and enhance the safety and well-being of their people. Moreover, with advanced sensors and people counting technology, we can help you address higher-level business needs such as determining space utilization, real-time customer traffic patterns, and changes in occupancy that may impact operating budgets.

Building Automation and utility savings is just the beginning of what Autani can bring to your business. Smart devices and controls unlock business insights that can have far greater savings implications.



Wired and Wireless System Integration

The Benefits of a Wireless System

In our modern wireless world, installing new wiring can be costly and ineffective. Wireless systems help both the installer and building owner:

1. Avoid the need to run wiring and conduit through multiple walls and ceilings in adjacent rooms.
2. Keep the work below the ceiling space by using light fixtures with embedded controllers. This minimizes the unknowns in any building and the potential for asbestos problems in pre-1980s buildings.
3. Maintain historical and aesthetically pleasing architectural spaces.
4. Provide flexibility where occupants' needs change. When walls move or the floor layout changes, the system can be recommissioned without the need for new controls equipment or rewiring.
5. Scale the system as needed without changing infrastructure.

Autani's platform can integrate multiple ecosystems, allowing it to easily adapt to a building with existing protocols.

Locally Wired, Globally Wireless Connectivity

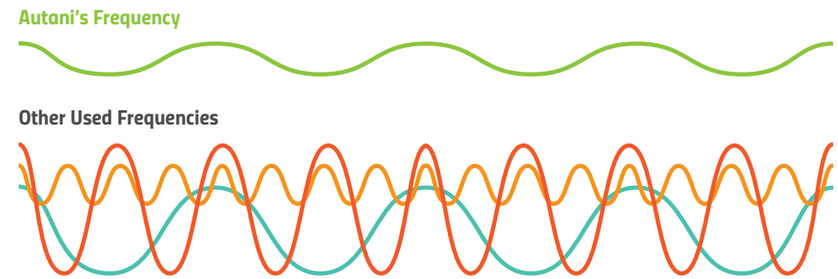
The existing wired ecosystem within a room can be integrated with new wireless devices.

1. Wireless controllers, sensors, and a switches form a wireless control mesh instead of the old paradigm of running new wires to every device.
2. Autani devices operate as standalone units for the purposes of switching and local control. Devices are connected to the Energy Manager for schedule updates and energy curtailments, where centralized control is desired.
3. BACnet integration allows for import/export with other building management systems to meet owner requirements and provide one point for system-wide schedule changes.

Frequency Integrity

Autani's wireless network identifies the best radio frequency within a building to optimize system performance. By scanning the building to identify which frequencies other systems are using, Autani can avoid radio bands that might be problematic and select the optimum frequency for any building. Additionally, the Autani wireless system has the ability to:

1. Constantly adapt to its surroundings, ensuring connectivity between devices.
2. Support reconfiguration to a different wireless frequency in the future as systems change.



Autani identifies and avoids bandwidths that are being used in a building to find the optimum functioning frequency.

System Security

The Autani wireless network has features to protect the integrity of the wireless system, keep people out that shouldn't have access, and set different tiers of credentials and levels of accessibility to limit what can be done by those who need access.

1. Unauthorized devices are quarantined from the mesh network, and new devices cannot join the network unless granted access by the administrator. Autani uses advanced encryption technology to prevent access to unauthorized devices.
2. Autani's EnergyCenter platform supports Role-Based Access, allowing user logins to be associated with the appropriate access levels needed by different types of users. Roles are customizable and support access levels such as viewing read-only reports, scheduling updates, and commissioning additional equipment.

Autani's networks have been designed with security in mind.

Energy Saving Strategies

Daylight Harvesting
Dim indoor and outdoor lighting when daylight is available.

5-25% LIGHTING SAVINGS

Local Dimming Control
Permit occupants to lower the light level below the high-end trim for comfort and additional savings.

10-20% LIGHTING SAVINGS

100% 80%

High-End Trim | Institutional Tuning
Set the maximum light level based on customer requirements in each space to prevent overlighting.

10-30% LIGHTING SAVINGS

System Metering and Monitoring
Revenue grade metering for measurement, verification, and system monitoring to identify changes in energy performance.

REAL TIME KNOWLEDGE

Occupancy / Vacancy Sensing
Turn lights on when occupants are in a space and off when they vacate the space.

10-40% LIGHTING SAVINGS

Demand Management
Manage lighting and HVAC electrical loads to limit ratchet charges and periods of peak demand pricing.

10-40% DURING PEAK PERIODS

HVAC Control
Manage smart thermostats and sensors to implement temperature setback of HVAC equipment based upon occupancy or timeclock.

10-25% ELECTRIC COOLING AND HEATING SAVINGS

Plug Load Control
Manage control of select plug loads for demand management and the elimination of phantom loads when the building is not occupied.

10-50% CONNECTED ELECTRIC LOAD SAVINGS

Automatic Scheduling & Timeclock
Implement automatic shut off of indoor and outdoor lighting systems, including astronomical timeclock for outdoor lights to maximize energy savings.

10-25% LIGHTING SAVINGS

Facility Management: Reducing Operational & Financial Risk

The Easy Way to Manage Your Budget and Your Bottom Line

The profitability of your business will be made or lost in the details. Autani can provide operational insights and verify the dynamic operations of your facilities to help you proactively manage your resources and assets.

Autani reporting leverages real data to assess the impact on:

OPERATING BUDGET
Manage facility energy and maintenance expenses

SPACE UTILIZATION
Measure time-based occupancy and traffic patterns

PRODUCTIVITY LOSS
Reduce employee downtime or disruption

REVENUE LOSS
Proactively manage critical equipment

Calculate Your Savings

Should you invest in networked lighting and HVAC controls? Autani's "Energy Savings" and "Cost of Waiting" calculators can help you determine the cost impact on your operating budget.
Download the calculators at www.autani.com/calculators

Holistic View of Facility Management

Saving money on hard costs like utility bills is an important first step, but knowing that soft costs can have a significantly larger impact to the budget is just as important. Changes that affect your work force have a much greater impact than changes that improve physical capital alone.

OPERATING BUDGET
Revenue grade metering and cost estimation engines provide accurate savings measurements. Autani generates analytics-based reporting to offer actionable insights tailored for your specific facility.

SPACE UTILIZATION
Understanding how your building operates from the perspective of the occupants and their business goals tied to the real estate usage is key to optimized space utilization.

Occupancy Sensors let you know when areas are occupied by employees. This information can be valuable to "right size" your office space and align your HVAC and lighting system operations. Moreover, how your space is actually utilized can help determine space requirements.

Seeing spaces that are under-utilized can improve business practice or save money on expensive real estate.

People Counters provide data on people migration patterns that can be utilized to drive business metrics such as:

- Deploy staff to customers more effectively to improve customer experience.
- Measure marketing success during special promotions.

PRODUCTIVITY LOSS
When temperatures are uncomfortable or work spaces are improperly illuminated, employess are less productive. Comfort issues and lighting/HVAC maintenance impact worker productivity, attendance, and retention—which translates to a real impact on your bottom line.

REVENUE LOSS
Maintenance issues and critical equipment failures are costly. Autani helps eliminate surprises and unexpected costs with proactive maintence reminders so you can schedule downtime at times convenient for you.

Codes and Compliance

Unlock Savings and Value with Autani's EnergyCenter Software

The key to achieving maximum energy and operational savings associated with building energy codes is through compliance verification and ongoing systems monitoring. Autani's EnergyCenter software easily allows a commissioning agent or acceptance tester to verify that component programming and settings comply with your local energy standard requirements. When a device or system is not in compliance, the settings can be modified in the software to verify code compliance. Ongoing system monitoring and reporting ensure the integrity of executing energy saving strategies.

Energy Code Basics

Energy codes and standards set minimum efficiency requirements for new and renovated buildings. ASHRAE 90.1-16, 2018 IECC – Prescriptive, Title 24 and 2018 IECC – Performance are commonly referenced. **For additional codes and compliance information, please visit** www.autani.com/compliance. Autani's EnergyCenter software can help you establish your local compliance with CA Title 24 and other state and local code requirements.

2018 International Energy Conservation Code Highlighted Sections

- Section C403 – Building Mechanical Systems
  - › C403.4 Heating and Cooling System Controls (Mandatory)
    - ›› C403.4.1 Thermostatic Controls
    - ›› C403.4.2 Off-hour Controls
- Section C405 – Electrical Power and Lighting Systems
  - › C405.2 Lighting Controls (Mandatory)
    - ›› C405.2.1 Occupant Sensor Controls
    - ›› C405.2.2 Time-Switch Controls
    - ›› C405.2.3 Daylight-Responsive Controls
    - ›› C405.2.4 Specific Application Controls
    - ›› C405.2.5 Manual Controls
    - ›› C405.2.6 Exterior Lighting Controls
  - › C405.3 – Interior Lighting Power Requirements (Prescriptive)
  - › C405.5 – Exterior Lighting (Mandatory)
- Section C504 – Repairs

When Do Lighting and Power Requirements Apply?

1. Original installed systems in a new building, addition, or tenant build-out.
2. Altering or retrofitting more than 10% of the existing luminaires in a space and installed interior lighting power is not increased.
3. Changes in occupancy that increase energy consumption.
4. Changes in occupancy that require a lower lighting power density (LPD) as shown in the code LPD tables.

Note: Always check your local code to verify requirements for all retrofit and renovation work. Additionally, see 2018 IECC Section C405.3.1 Total Connected Interior Lighting Power for areas excluded from LPD requirements.

Functional Testing

Prior to final inspection and project completion, a qualified design professional should provide evidence that the lighting controls systems and thermostatic controls systems have been tested and performance has been verified to ensure:

- Control hardware and software are calibrated, adjusted, programmed, and working to meet or exceed code requirements as specified per the construction documents or contractual performance guarantee.
- All manufacturer installation instructions, equipment cut sheets, and other supporting documents have been aggregated for the owner.
- All monitoring and alerts have been set up for ongoing performance verification.

Sequences of Operation: Office Building Applications

Occupancy / Vacancy Sensor Applications

Per 2018 IECC C405.2.1

1. When lights are on, all non-emergency lights automatically turn off when occupancy is not detected by the occupancy sensor within [15 minutes].
2. If sensor has turned lights off and occupancy is detected within [60 seconds], then lights return to the last lighting level.
3. When lights are off, lights set to [manual on] or [automatic on set to [50%] power]. Per code, areas where manual-on operation would endanger the safety or security of the room or building occupants shall be full automatic-on.
4. Room thermostat to setback [5 degrees F] when occupancy is not detected by the occupancy sensor within [30 minutes].
5. Operating hours logged and reported in the EnergyCenter software for system learning and alerts. If lights are on for [60 minutes] during afterhours operation [9 PM], an alert shall be sent.

Daylight Sensor Applications

Per 2018 IECC C405.2.3 and C406.4

1. When the space is occupied, the daylight sensor automatically reduces power and dims the light fixtures to maintain a consistent [30] foot candle setting. The maximum [8] fixtures associated within the daylighting zone programmed to not exceed the maximum light level established by the daylight sensor.
2. Set dimming range from a maximum dimming level [100%] of the high-end trim setpoint to a minimum dimming level [10%] to avoid confusion among occupants. Note: Lights can be turned off if occupants are aware of the operations and energy savings benefits.

Thermostat Control

Per 2018 IECC C403.4

1. Local thermostat to have +/- [2 degrees F] local adjustment of normal occupied setpoint temperature.
2. When multiple sensors are utilized, the local thermostat to take the average of the connected room temperature sensors to call for heating or cooling within +/- [3 degrees F] deadband range.

Wireless Switch / Dimmer Lighting Control

Per 2018 IECC C405.2.2.2

1. Allow local dimming from [80%] high-end trim to [0%] in the room.
2. Support on/off switching.

Lighting and Thermostat Timeclock Control & Scheduling

Per 2018 IECC C405.2.2 and C405.2.6

1. Set high-end trim/institutional tuning maximum light level to [80%].
2. EnergyCenter software timeclock turns interior lights on to [50%] light level during scheduled normal hours of operation.
3. During scheduled unoccupied hours, all non-emergency interior lighting systems are [swept off] [dimmed to [30%]]. If occupancy is detected, the lights in the occupied rooms remain on and the occupancy will be logged.
4. Local manual overrides set to allow lights to remain on for [2 hours] maximum.
5. Exterior lights turned on/off via an astrononmical timeclock. Lights turn on to [80%] [15 minutes] before sunset, and turn off [15 minutes] after sunrise.
6. Exterior lights grouped to enable automatic dimming from [100%] maximum to a minimum of [50%] between the hours of [12 AM] and [6 AM] with a manual override to full on. See IECC C405.2.6.3
7. Timeclock schedule to automatically setback room thermostats [5 degrees F] during unoccupied hours. Timeclock to reset thermostats to occupied mode [1 hour] prior to normal occupied operations.

Electrical Receptacle / Smart Outlet Plug Load Control

Per ASHRAE 90.1-2013, Section 8.4

1. Controlled electrical receptacles in a space to be automatically turned off within [20 minutes] when occupancy is not detected by the associated occupancy sensor.
2. During scheduled occupied hours, electrical receptacles to be automatic on within [30 seconds] when occupancy is detected.
3. During scheduled unoccupied hours, all controlled elecrtrical receptacles are [swept off]. If occupancy is detected, the controlled receptacles in the occupied rooms remain on.
4. During scheduled unoccupied hours, electrical receptacles to be automatic on with a [5 minute delay] when occupancy is detected.
5. If electrical load exceeds [10 amps] at any receptacle, an alert shall be sent with location of the excessive load and time of occurance.

Sequences of Operation: Demand Response

Having the ability to manage your electricity consumption can allow a building owner/operator to reduce electrical consumption during periods of real-time pricing, critical-peak pricing, or time-of-use tariffs that may be charged by the local electric utility. Moreover, some utilities may offer incentive-based demand response programs to pay the building owner/operator if the building's electrical consumption can be reduced during certain periods of time throughout the year.

Participation in a demand response program may generate monthly incentive payments. Having an ability to reduce electrical consumption and potentially shift some of the electrical load, such as precooling the building, can positively impact the bottom line.

Even if your utility does not currently charge for real-time or critical-peak pricing, almost all have a ratchet charge that you pay on a 12-month basis just so that utility can "reserve" power for you. Autani's EnergyCenter helps reduce your risk and exposure to these higher utility charges.

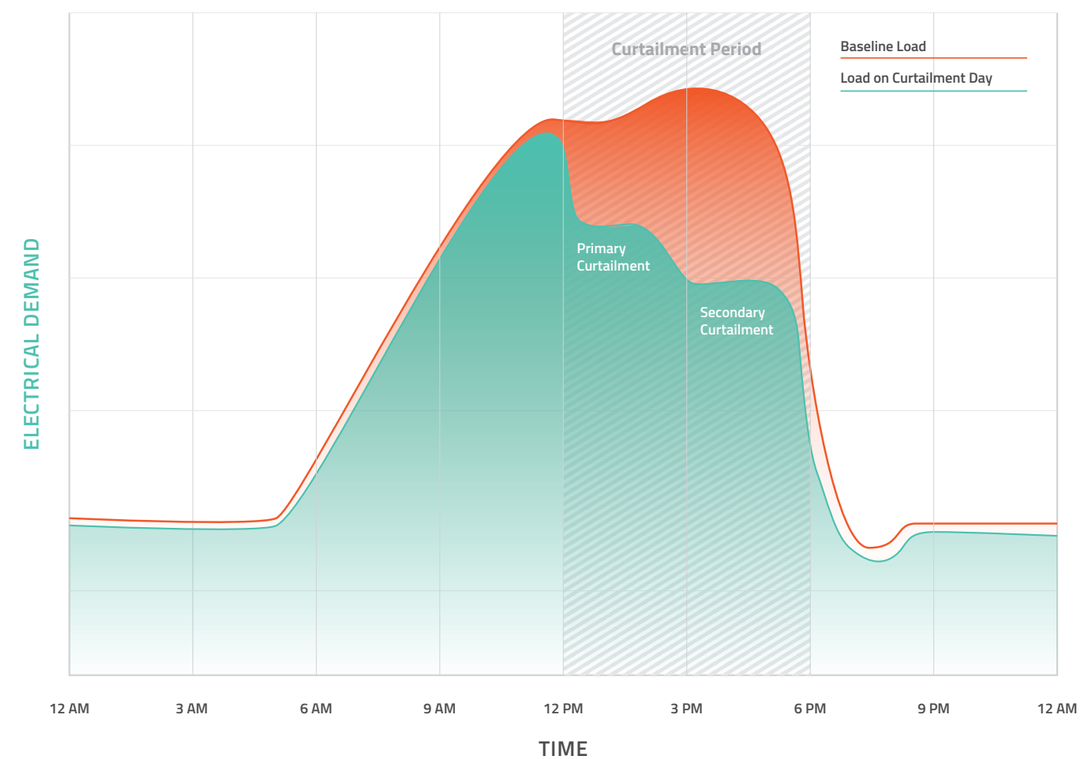
Demand response programs can be initiated automatically through EnergyCenter and reward customers who voluntarily reduce their energy use during peak demand events.

Demand Response / Electrical Load Shedding

Per 2018 IECC C406.4

Upon notification of a demand response signal, the building [automatically] [manually] implements the following during the entire duration of the event via the EnergyCenter software:

1. Maximum light level set to [50%] in all essential spaces.
2. Non-essential space lighting is turned off.
3. Non-essential controlled electrical receptacles are turned off.
4. Essential controlled electrical receptacles are monitored with alerts set at [10 amps] to notify facilities management of excessive loads and their location.
5. For [3 hours] prior to the demand response event, disable local thermostat control and lower thermostat [5 degrees F] below normal setpoint temperature to pre-cool the building. During load shedding event, raise room thermostats [5 degrees F] above normal setpoint temperature and keep local thermostat control disabled.
6. Autani meters to report electrical load consumption and provide [5 minute] status alerts via the EnergyCenter software during the event.



Building Types and Applications

Here is what you need to know

Building Network Overview

WIRELESS SMART BUILDING BACKBONE VIA INTEGRATED LIGHTING AND HVAC SYSTEMS

Autani's EnergyCenter building management platform upgrades the entire building, from indoor and outdoor lighting systems to stand-alone thermostats, with an energy efficient network of user-friendly controls that can be accessed anytime, from anywhere. Autani's wireless mesh network is primarily built from these components. The Autani COREs act as wireless gateways within the building while the Manager collects and aggregates data throughout the building. Finally, Autani Range Extenders can extend the wireless mesh range by up to 2000 ft.

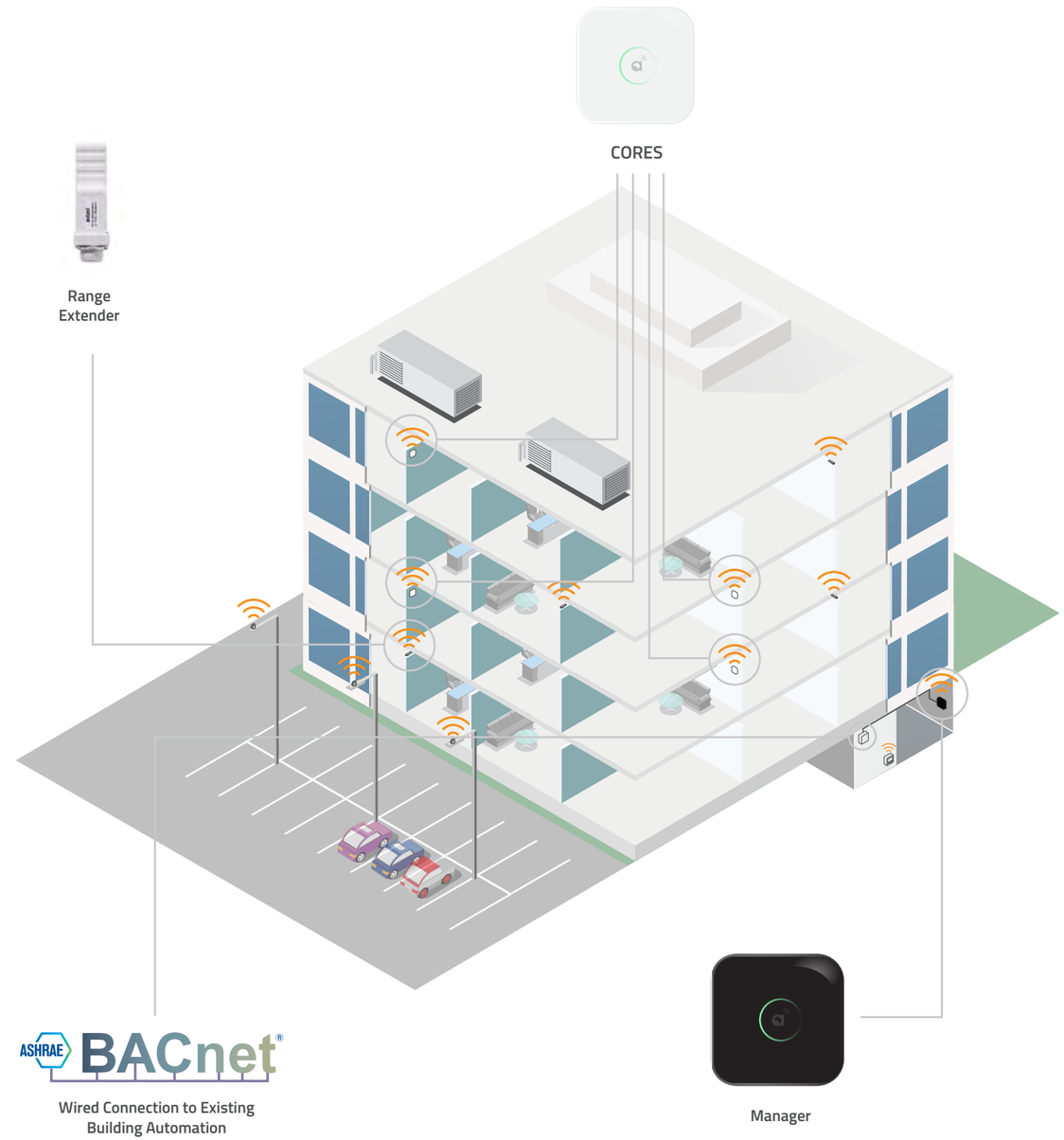
PRODUCT RECOMMENDATIONS

Manager with EnergyCenter Software
Serves as central control hub to distribute programming to all fixtures. Controlled on-site or remotely via EnergyCenter software. If your facility already utilizes a Manager to control indoor lighting/HVAC, the same Manager can be used to control outdoor lighting.

CORE
These are essentially mini-Managers that allow multiple zones and fixtures to have a more local hub. This prevents any lags from distance to the Manager and allows for more fixtures to be controlled in a designated area.

Range Extender
Extends the range of the wireless communications. This is especially useful when bridging between multiple floors or outdoor lights.

EnergyCenter Software and autani.net Remote Access



Conference Room

FLEXIBLE AND COLLABORATIVE MEETING SPACE

Autani provides a number of solutions that specifically address conference room and shared meeting spaces. The Wireless Room Controller (WRC) provides two zones of on/off and dimming control to support multi-zone projector or TV layouts, while sensors and thermostats maintain the room lighting and temperature for optimal energy savings and occupant comfort.

PRODUCT RECOMMENDATIONS

Wireless Room Controller
Integrates with existing wiring to provide fixture zoning. Allows wireless integration with sensors and switches.

Wireless Thermostat
Centrally controlled and locally integrated with occupancy sensors. Master schedules can be pushed facility-wide or to target thermostats.

Wireless Switches
Self-powered switches that install in seconds. Easily commissioned to support dimming and preset light levels.

Wireless Sensors
Self-powered sensors that install in seconds, supporting daylight harvesting and motion / occupancy sensing.

CONTROL STRATEGIES

Occupancy / Vacancy Sensing
Turn lights on when occupants are in a space and off when they vacate the space. Alternate Functionality: Partial-on and manual-on modes are supported for additional savings and for more stringent local codes.

High-End Trim / Institutional Tuning
Set the maximum light level based on customer requirements in each space to prevent overlighting.

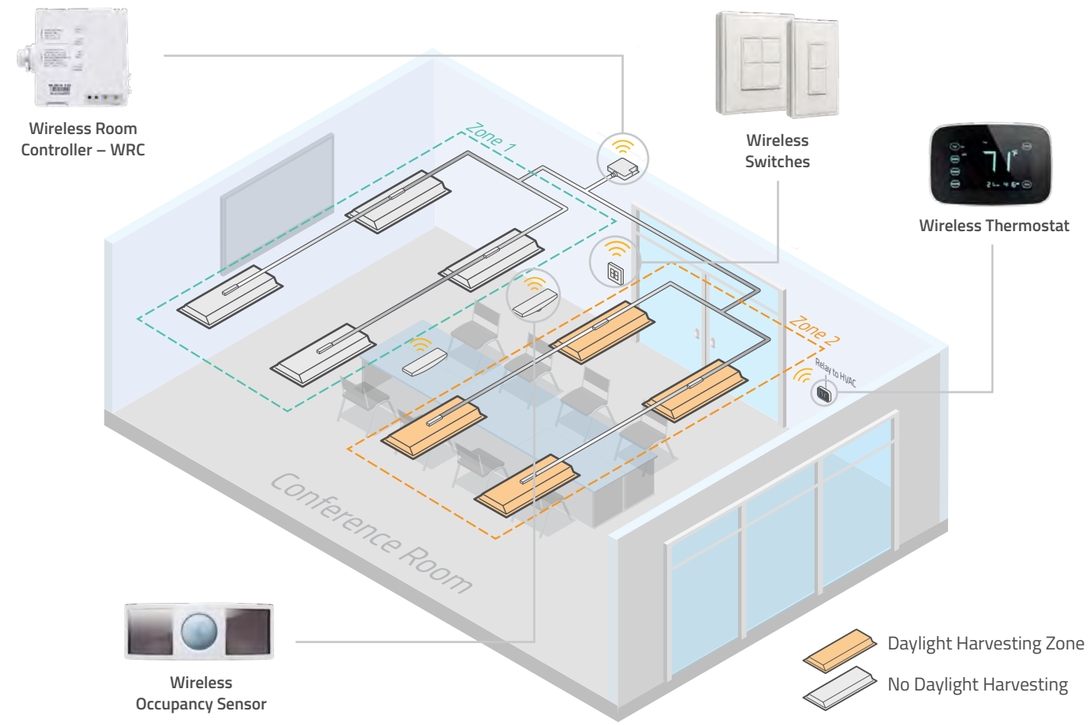
Daylight Harvesting
Dim indoor and outdoor lighting when daylight is available. Multiple zones are supported where required by code.

HVAC Control
Manage smart thermostats and sensors centrally to optimize comfort and energy savings via calendar and occupancy based setbacks.

Automatic Scheduling & Timeclock
Automatically dim or shut off lighting based on centrally managed schedules.

Demand Management
Manage lighting and HVAC electrical loads to limit ratchet charges and peak demand pricing periods.

ESTIMATED TOTAL SAVINGS: 20-50%



BUSINESS OUTCOMES

- Improve alertness and bring the environment to life.
- Wireless, self-powered sensors and switches provide ultimate flexibility – with freedom to locate as desired.
- Log space utilization for insights on operational costs.
- Align energy costs with comfort and occupancy requirements.

Open Office

FLEXIBLE AND COMFORTABLE WORK SPACE

Autani controls provide many benefits for open office layouts. The space can be dynamically rezoned into different regions when cubicle layouts are changed. Autani Thermostats can be scheduled for optimal comfort while supporting administrator-defined limited overrides to allow for temperature overrides in certain spaces. Wireless controls can be configured to support different optimal light levels through day and night, and light harvesting options allow lighting usage to be dialed back when exterior daylight enters the space.

PRODUCT RECOMMENDATIONS

Wireless Thermostat
Centrally controlled and locally integrated with occupancy sensors. Master schedules can be pushed facility-wide or to target thermostats.

Wireless Multi-Sensor & Fixture Controls
Integrates occupancy sensing, daylight harvesting and space utilization into the light fixtures and can be pre-installed.

Wireless Switches
Easily commissioned to support dimming and preset light levels.

CONTROL STRATEGIES

Occupancy / Vacancy Sensing
Turn lights on when occupants are in a space and off when they vacate the space. Alternate Functionality: Partial-on and manual-on modes are supported for additional savings and for more stringent local codes.

High-End Trim | Institutional Tuning
Set the maximum light level based on customer requirements in each space to prevent overlighting.

Local Dimming Control
Permit occupants to lower the light level below the high-end trim for comfort and additional savings.

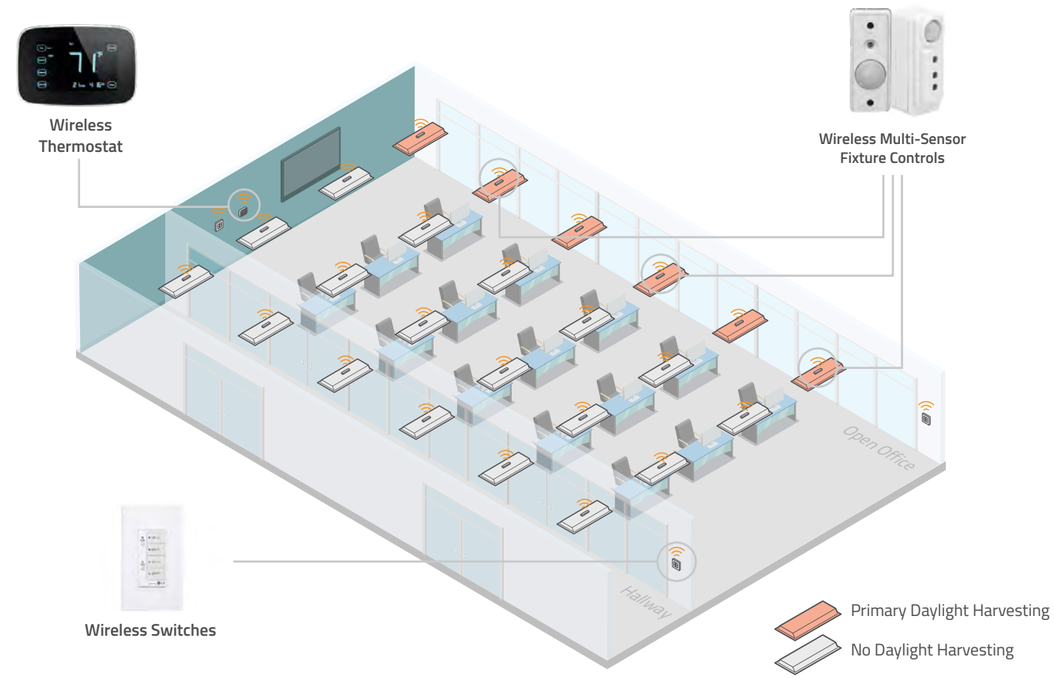
Daylight Harvesting
Dim indoor and outdoor lighting when daylight is available. Multiple zones are supported where required by code.

HVAC Control
Manage smart thermostats and sensors centrally to optimize comfort and energy savings via calendar and occupancy based setbacks.

Automatic Scheduling & Timeclock
Automatically dim or shut off lighting based on centrally managed schedules.

Demand Management
Manage lighting and HVAC electrical loads to limit ratchet charges and peak demand pricing periods.

ESTIMATED TOTAL SAVINGS: 20-40%



BUSINESS OUTCOMES

- Improve environmental comfort where healthy, happy people contribute more while constructing a higher performing company.
- Log space utilization for insights on operational costs.
- Align energy costs with comfort and occupancy requirements.
- Reduce eye strain from over or under lighting to improve productivity.

University Auditorium

DYNAMIC, COMFORTABLE, AND FLEXIBLE LEARNING ENVIRONMENT TO EXCHANGE IDEAS

Autani gives your educators control over their learning environment, creating a conducive environment of collaboration and the exchanging of ideas. The wireless integration of the lighting and HVAC system temperature control brings flexibility and reliability to deliver the right light and right temperature at the right time for the students' learning experience.

PRODUCT RECOMMENDATIONS

Wireless Room Controller
Integrates with existing wiring to provide fixture zoning. Allows wireless integration with sensors and switches.

Wireless Thermostat
Centrally controlled and locally integrated with occupancy sensors. Master schedules can be pushed facility-wide or to target thermostats.

Wireless Scene Selector
Ideal for larger spaces that require programmed scenes. It requires minimal installation time and commissioning and allows a lighting scene to be selected with a single button.

CONTROL STRATEGIES

Occupancy / Vacancy Sensing
Turn lights on when occupants are in a space and off when they vacate the space. Alternate Functionality: Partial-on and manual-on modes are supported for additional savings and for more stringent local codes.

High-End Trim | Institutional Tuning
Set the maximum light level based on customer requirements in each space to prevent overlighting.

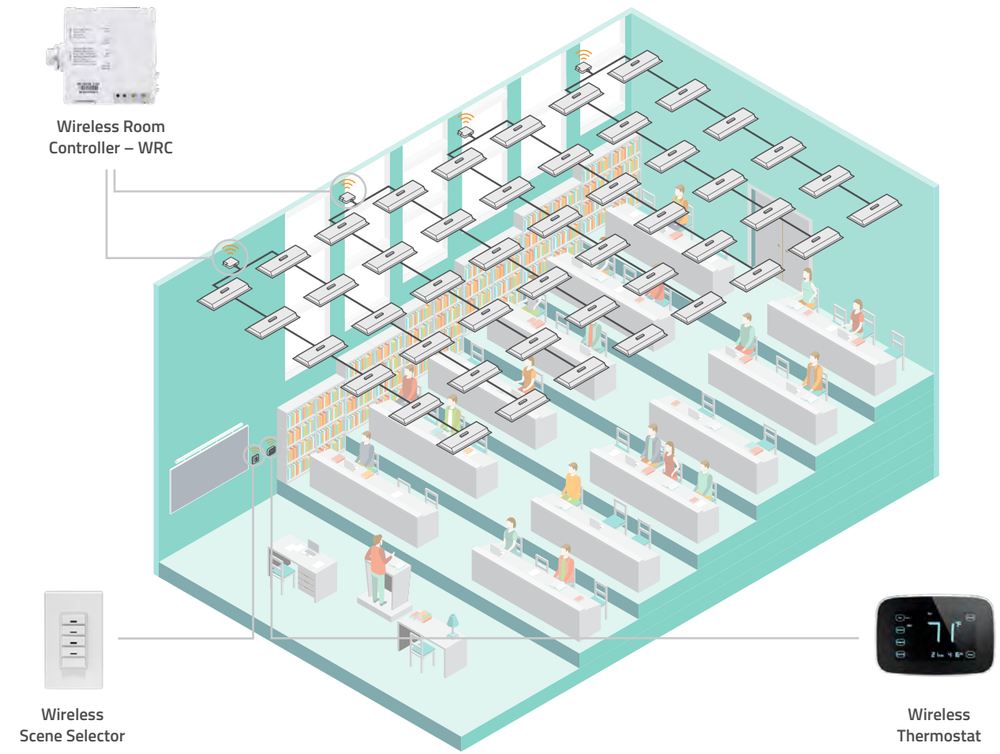
Local Dimming Control
Permit occupants to lower the light level below the high-end trim for comfort and additional savings.

HVAC Control
Manage smart thermostats and sensors centrally to optimize comfort and energy savings via calendar and occupancy based setbacks.

Automatic Scheduling & Timeclock
Automatically dim or shut off lighting based on centrally managed schedules.

Demand Management
Manage lighting and HVAC electrical loads to limit ratchet charges and peak demand pricing periods.

ESTIMATED TOTAL SAVINGS: 10-40%



BUSINESS OUTCOMES

- Improve student alertness and bring the environment to life.
- Empower your educators to customize their learning environment.
- Log space utilization for insights on operational costs.
- Align energy costs with comfort and occupancy requirements.

University Dorm

SAFE, COMFORTABLE, AND MANAGEABLE LIVING ENVIRONMENT

Autani helps maintain comfortable temperatures, avoiding extreme temperatures in the dorms. With smart thermostats, no longer do windows need to be left open year-round to compensate for overheating or overcooling.

The wireless integration of the lighting in common areas, plug load controls, and HVAC system controls operating costs while keeping the residents safe and comfortable in a smarter dorm. Facility managers can remotely monitor the dorm and receive maintenance alerts if the equipment is misused or damaged.

PRODUCT RECOMMENDATIONS

Wireless Room Controller
Integrates with existing wiring to provide fixture zoning. Allows wireless integration with sensors and switches.

Wireless Multi-Sensor & Fixture Controls
Integrates occupancy sensing and daylight harvesting into the light fixtures. These can be used where fixtures require individual control or where running wire between fixtures is not feasible due to the building structure.

SMT-131 Wireless Thermostat
Provides flexible configuration for use in both 2-pipe and 4-pipe heating and cooling systems.

Plug Load Controller
Allows for wireless monitoring and control of outlets. Integrates with building schedules to allow for calendar events such as holidays.

CONTROL STRATEGIES

Occupancy / Vacancy Sensing
Turn lights on when occupants are in a space and off when they vacate the space. Alternate Functionality: Partial-on and manual-on modes are supported for additional savings and for more stringent local codes.

High-End Trim | Institutional Tuning
Set the maximum light level based on customer requirements in each space to prevent overlighting.

Local Dimming Control
Permit occupants to lower the light level below the high-end trim for comfort and additional savings.

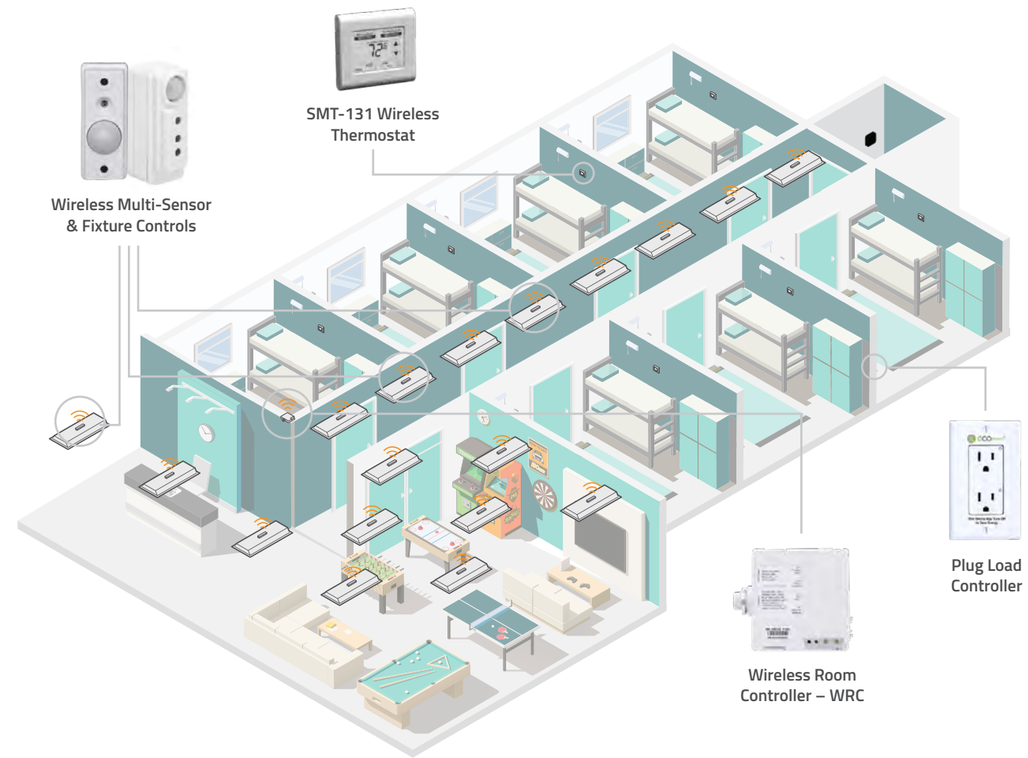
HVAC Control
Manage smart thermostats and sensors centrally to optimize comfort and energy savings via calendar and occupancy based setbacks.

Plug Load Control
Manage control of select plug loads for demand management and the elimination of phantom loads.

Automatic Scheduling & Timeclock
Automatically dim or shut off lighting based on centrally managed schedules.

Demand Management
Manage lighting and HVAC electrical loads to limit ratchet charges and peak demand pricing periods.

ESTIMATED TOTAL SAVINGS: 20-40%



BUSINESS OUTCOMES

- Monitor extreme consumption demands on the heating and electrical systems to ensure the building is operating as intended.
- Log space utilization in common areas for insights on occupancy patterns and operational costs.
- Reduce power consumption during school breaks with flexible schedule management.
- Align energy costs with comfort, occupancy, and safety requirements.

University Campus

CONNECTED AND SCALABLE MULTI-SITE MANAGEMENT

Autani's Wireless Outdoor Lighting Control can be used to control campus outdoor lighting simply and easily. The outdoor fixture controller allows lighting schedules to be defined based on an astronomical clock in response to changing seasons, and can support different dimming levels at different times of night.

Autani's Energy Manager with EnergyCenter software is a simple way to aggregate all of your lighting and HVAC systems from multiple site locations remotely and at a central location. Real-time monitoring, metering, control and management, 24 hours per day, 365 days per year ensure that your critical equipment and associated energy saving control strategies are functioning properly. And when they are not, you are immediately notified to minimize your risk.

PRODUCT RECOMMENDATIONS

Manager with EnergyCenter Software
Serves as central control hub to distribute programming to all fixtures. Controlled on-site or remotely via EnergyCenter software. If your facility already utilizes a Manager to control indoor lighting/HVAC, the same Manager can be used to control outdoor lighting.

Wireless Outdoor Lighting Control
Controls outdoor lighting, allowing fixtures to be commissioned and managed via EnergyCenter software for optimum savings. Supports both on/off and dimming.

CONTROL STRATEGIES

100% → 80%

High-End Trim | Institutional Tuning
Set the maximum light level based on customer requirements in each space to prevent overlighting.

Automatic Scheduling & Timeclock
Automatically dim or shut off lighting based on centrally managed schedules.

Demand Management
Manage lighting and HVAC electrical loads to limit ratchet charges and peak demand pricing periods.

$ **ESTIMATED TOTAL SAVINGS: 10-40%**

Wireless Outdoor Lighting Control

Manager

BUSINESS OUTCOMES

- Better align energy costs and energy saving strategies with operating budgets.
- Keep critical equipment operating to keep occupants comfortable and safe.
- Easily adjust master schedules remotely due to weather related building closures.
- Set alerts for equipment failure to quickly deploy maintenance staff.
- Manage peak load pricing strategies to reduce ratchet charges or peak load pricing.

K-12 Schools

CONNECTED, COMFORTABLE, AND FLEXIBLE LEARNING ENVIRONMENT TO STIMULATE LEARNING

The teaching paradigm in our schools today has gravitated towards a connected classroom with a more dynamic learning environment. Autani gives your teachers and administrators more control to create an environment that promotes collaboration and the exchanging of ideas. Wireless integration of lighting and temperature control brings flexibility and reliability to deliver the right light and right temperature at the right time to enhance each student's learning experience.

PRODUCT RECOMMENDATIONS

Wireless Thermostat
Centrally controlled and locally integrated with occupancy sensors. Master schedules can be pushed facility-wide or to target thermostats.

Wireless Multi-Sensor & Fixture Controls
Integrates occupancy sensing, daylight harvesting and space utilization into the light fixtures and can be pre-installed.

Wireless Switches
Self-powered switches that install in seconds. Easily commissioned to support dimming and preset light levels.

Plug Load Controller
Allows for wireless monitoring and control of outlets. Integrates with building schedules to allow for calendar events such as holidays.

CONTROL STRATEGIES

Occupancy / Vacancy Sensing
Turn lights on when occupants are in a space and off when they vacate the space. Alternate Functionality: Partial-on and manual-on modes are supported for additional savings and for more stringent local codes.

High-End Trim | Institutional Tuning
Set the maximum light level based on customer requirements in each space to prevent overlighting.

Local Dimming Control
Permit occupants to lower the light level below the high-end trim for comfort and additional savings.

Daylight Harvesting
Dim indoor and outdoor lighting when daylight is available. Multiple zones are supported where required by code.

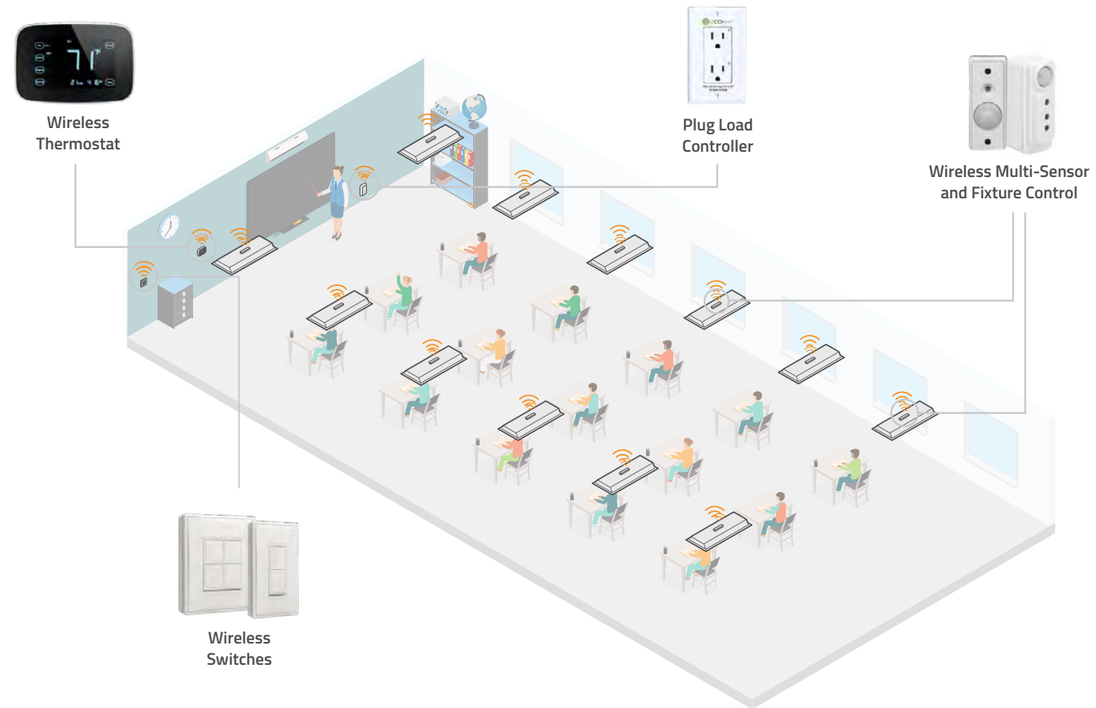
HVAC Control
Manage smart thermostats and sensors centrally to optimize comfort and energy savings via calendar and occupancy based setbacks.

Plug Load Control
Manage control of select plug loads for demand management and the elimination of phantom loads.

Automatic Scheduling & Timeclock
Automatically dim or shut off lighting based on centrally managed schedules.

Demand Management
Manage lighting and HVAC electrical loads to limit ratchet charges and peak demand pricing periods.

ESTIMATED TOTAL SAVINGS: 10-50%



BUSINESS OUTCOMES

- Improve student alertness and bring the environment to life.
- Align energy costs with comfort, occupancy and safety requirements.
- Log space utilization for insights on operational costs.
- Empower your educators to customize their learning environment.

Patient Room

BALANCED ENVIRONMENT FOR PATIENT CARE AND RECOVERY

Integrated wireless lighting and temperature control can keep patients comfortable while allowing the caregiver to temporarily adjust the environment when caring for the patient. Wireless dimming can give personal control for the patients' preferences, contributing to their well-being and path to recovery.

PRODUCT RECOMMENDATIONS

Wireless Switches
Easily commissioned to support dimming and preset light levels.

Wireless Multi-Sensor & Fixture Controls
Integrates occupancy sensing, daylight harvesting and space utilization into the light fixtures and can be pre-installed.

CONTROL STRATEGIES

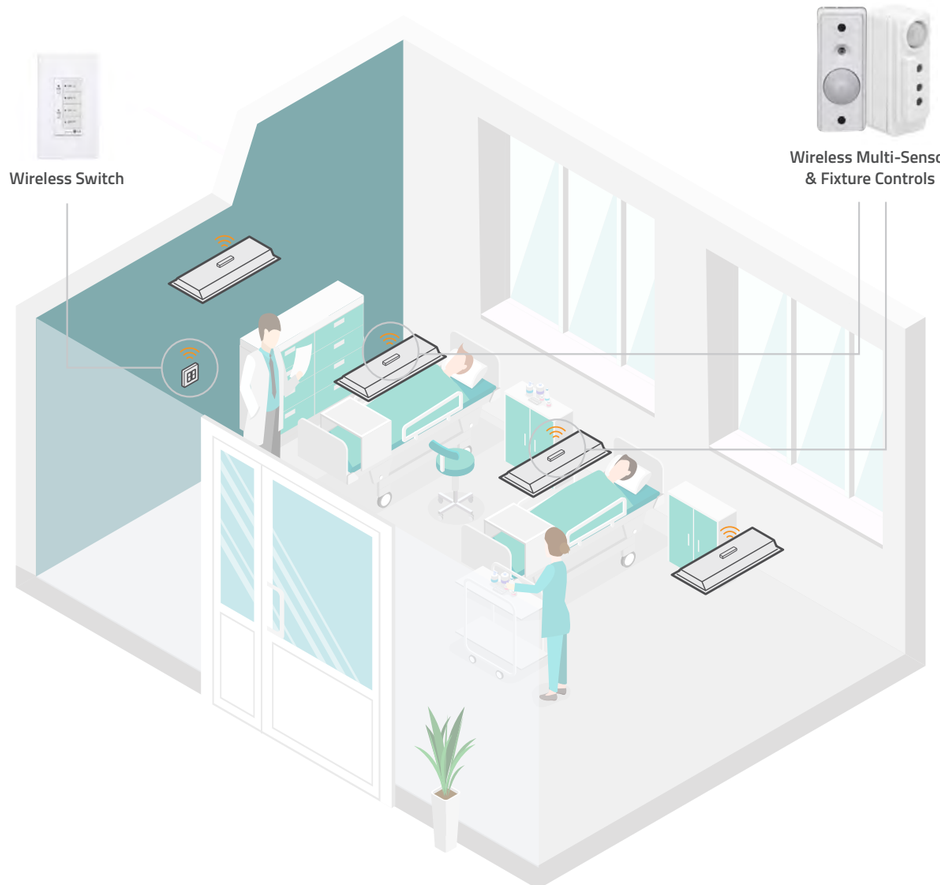
Occupancy / Vacancy Sensing
Turn lights on when occupants are in a space and off when they vacate the space. Alternate Functionality: Partial-on and manual-on modes are supported for additional savings and for more stringent local codes.

High-End Trim | Institutional Tuning
Set the maximum light level based on customer requirements in each space to prevent overlighting.

Local Dimming Control
Permit occupants to lower the light level below the high-end trim for comfort and additional savings.

Daylight Harvesting
Dim indoor and outdoor lighting when daylight is available. Multiple zones are supported where required by code.

ESTIMATED TOTAL SAVINGS: 10-30%



BUSINESS OUTCOMES

- Create better working conditions for your caregivers while accommodating patient needs.
- Align energy costs with comfort, occupancy, and safety requirements.
- Log space utilization for insights on operational costs.
- Receive actionable information and alerts regarding lighting and HVAC system operations.

Hospital Facilities

Hospital Floor

COLLABORATIVE AND COMFORTABLE ENVIRONMENT FOR STAFF WELL-BEING

Autani's wireless controls can be pre-installed on fixtures and will not require additional conduit to be run through spaces, which is particularly important for operating healthcare facilities. Since Autani offers a variety of zone and fixture-based controllers, the solution can be tailored to the space to minimize installation time and and disruption to adjoining areas within the facility.

PRODUCT RECOMMENDATIONS

Wireless Room Controller
Integrates with existing wiring to provide fixture zoning. Allows wireless integration with sensors and switches.

Wireless Thermostat
Centrally controlled and locally integrated with occupancy sensors. Master schedules can be pushed facility-wide or to target thermostats.

Wireless Switches
Easily commissioned to support dimming and preset light levels.

Wireless Multi-Sensor & Fixture Controls
Integrates occupancy sensing, daylight harvesting and space utilization into the light fixtures and can be pre-installed.

CONTROL STRATEGIES

Occupancy / Vacancy Sensing
Turn lights on when occupants are in a space and off when they vacate the space. Alternate Functionality: Partial-on and manual-on modes are supported for additional savings and for more stringent local codes.

High-End Trim | Institutional Tuning
Set the maximum light level based on customer requirements in each space to prevent overlighting.

Local Dimming Control
Permit occupants to lower the light level below the high-end trim for comfort and additional savings.

Daylight Harvesting
Dim indoor and outdoor lighting when daylight is available. Multiple zones are supported where required by code.

HVAC Control
Manage smart thermostats and sensors centrally to optimize comfort and energy savings via calendar and occupancy based setbacks.

Plug Load Control
Manage control of select plug loads for demand management and the elimination of phantom loads.

Automatic Scheduling & Timeclock
Automatically dim or shut off lighting based on centrally managed schedules.

Demand Management
Manage lighting and HVAC electrical loads to limit ratchet charges and peak demand pricing periods.

ESTIMATED TOTAL SAVINGS: 20-40%

BUSINESS OUTCOMES

- Reduce eye strain from over or under lighting to improve the well-being of your staff.
- Improve environmental comfort where healthy, happy people contribute more while constructing a higher performing healthcare organization.
- Log space utilization for insights on operational costs.
- Align energy costs with comfort, occupancy, and safety requirements.
- Receive better information and alerts regarding critical lighting and HVAC system operations.

Warehouse

SAFE AND SECURE ENVIRONMENT TO IMPROVE CASHFLOW

An estimated 2/3rds of the utility spend in a warehouse can be attributed to lighting and HVAC. Whether you own or lease your warehouse space, upgrading and managing your facilities with Autani can reduce energy and maintenance costs, creating a more comfortable and secure operating environment for your customers and your employees.

PRODUCT RECOMMENDATIONS

Wireless High Bay Sensor & Fixture Controller
Provides motion sensing optimized for high bay applications. Detected motion triggers changes in lighting and HVAC. Supports wireless on/off and dimming of each fixture.

Wireless Scene Selector
Ideal for larger spaces that require programmed scenes. It requires minimal installation time and commissioning and allows a lighting scene to be selected with a single button.

Wireless Multi-Sensors & Fixture Controls
Integrates occupancy sensing, daylight harvesting and space utilization into the light fixtures and can be pre-installed.

Wireless Switches
Easily commissioned to support dimming and preset light levels.

Wireless Meter
Provides revenue grade metering, allowing you to know the real-time cost of your energy usage. Used with EnergyCenter for verification reporting to qualify for rebates.

CONTROL STRATEGIES

Occupancy / Vacancy Sensing
Turn lights on when occupants are in a space and off when they vacate the space. Alternate Functionality: Partial-on and manual-on modes are supported for additional savings and for more stringent local codes.

High-End Trim | Institutional Tuning
Set the maximum light level based on customer requirements in each space to prevent overlighting.

Local Dimming Control
Permit occupants to lower the light level below the high-end trim for comfort and additional savings.

Daylight Harvesting
Dim indoor and outdoor lighting when daylight is available. Multiple zones are supported where required by code.

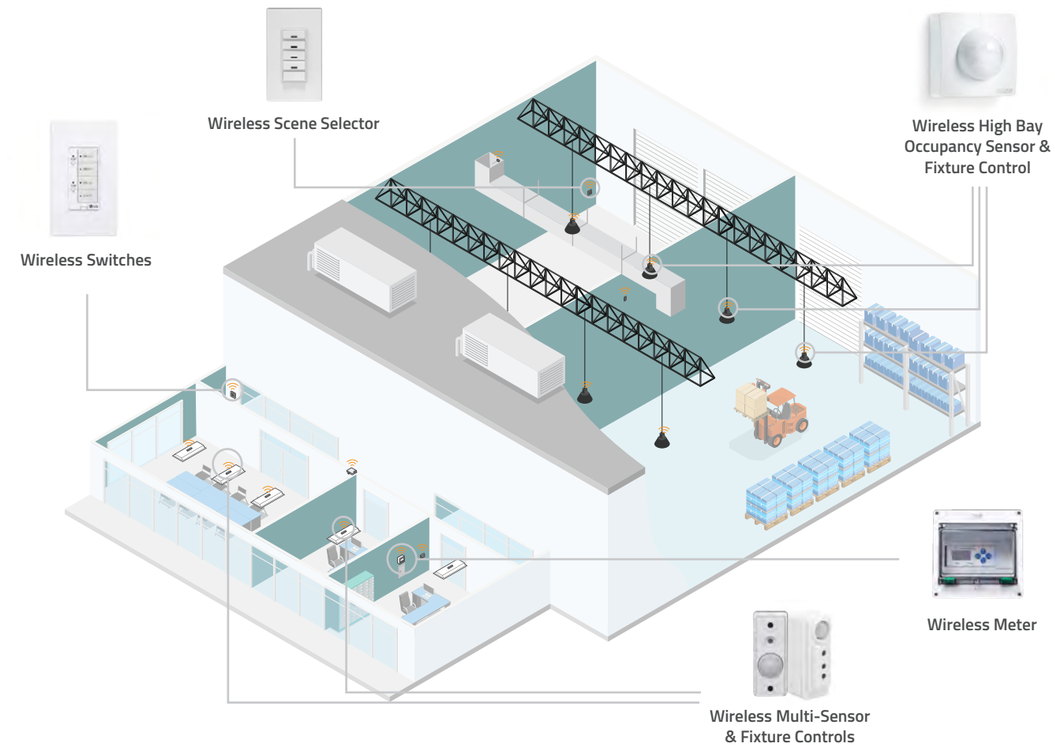
HVAC Control
Manage smart thermostats and sensors centrally to optimize comfort and energy savings via calendar and occupancy based setbacks.

Plug Load Control
Manage control of select plug loads for demand management and the elimination of phantom loads.

Automatic Scheduling & Timeclock
Automatically dim or shut off lighting based on centrally managed schedules.

Demand Management
Manage lighting and HVAC electrical loads to limit ratchet charges and peak demand pricing periods.

ESTIMATED TOTAL SAVINGS: 20-60%



BUSINESS OUTCOMES

- Create immediate positive cash flow with energy savings.
- Enhance employee well-being.
- Prevent accidents.
- Lower maintenance cost.
- Maintain more effective temperature control to protect goods and improve productivity.

Historic Buildings

MODERN AMENITIES WITH HISTORICAL PRESERVATION

Maintaining the historic appearance of a building while adding modern amenities of building automation is possible with Autani wireless controls. When one of the requirements is "no new wiring," Autani wireless controllers and devices can bring your building management and environmental control into the 21st century with all of the associated benefits.

PRODUCT RECOMMENDATIONS

Wireless Room Controller
Integrates with existing wiring to provide fixture zoning. Allows wireless integration with sensors and switches.

Wireless Temperature Sensors
These self-powered sensors can be used in combination to create an average temperature reading of key customer areas to ensure more efficient HVAC activation.

Wireless Thermostat
Centrally controlled and locally integrated with occupancy sensors. Master schedules can be pushed facility-wide or to target thermostats.

Wireless Switches
Self-powered switches that install in seconds. Easily commissioned to support dimming and preset light levels.

Wireless Sensors
Self-powered sensors that install in seconds, supporting daylight harvesting and thermostat temperature reset.

Fan Coil Control Bridge
Allows the thermostat to leverage wireless remote sensor(s), in addition to averaging across multiple sensors.

CONTROL STRATEGIES

Occupancy / Vacancy Sensing
Turn lights on when occupants are in a space and off when they vacate the space. Alternate Functionality: Partial-on and manual-on modes are supported for additional savings and for more stringent local codes.

High-End Trim | Institutional Tuning
Set the maximum light level based on customer requirements in each space to prevent overlighting.

Local Dimming Control
Permit occupants to lower the light level below the high-end trim for comfort and additional savings.

Daylight Harvesting
Dim indoor and outdoor lighting when daylight is available. Multiple zones are supported where required by code.

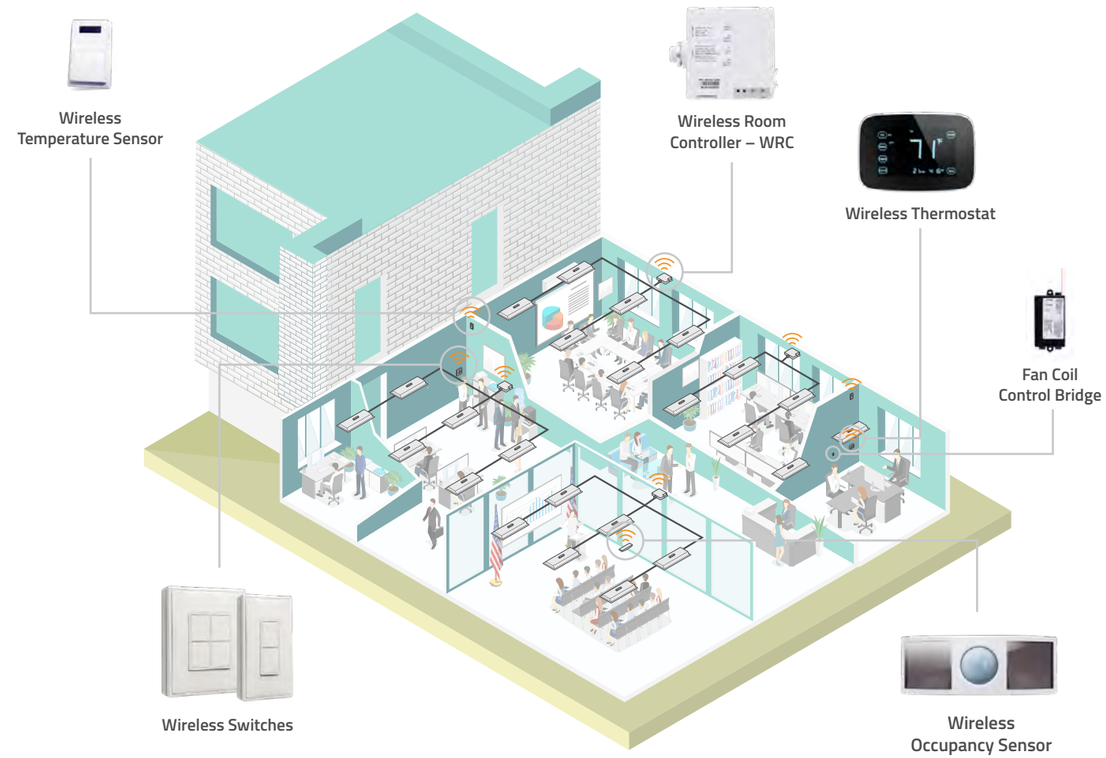
HVAC Control
Manage smart thermostats and sensors centrally to optimize comfort and energy savings via calendar and occupancy based setbacks.

Plug Load Control
Manage control of select plug loads for demand management and the elimination of phantom loads.

Automatic Scheduling & Timeclock
Automatically dim or shut off lighting based on centrally managed schedules.

Demand Management
Manage lighting and HVAC electrical loads to limit ratchet charges and peak demand pricing periods.

ESTIMATED TOTAL SAVINGS: 20-60%



BUSINESS OUTCOMES

- Preserve building aesthetics and structure by using wireless, self-powered devices.
- Lower operating costs and minimize exposure to rising utility costs.
- Improve environmental comfort to meet the needs of your employees and customers.
- Manage renovation costs more effectively by staying out of walls and ceilings as much as possible.
- Log space utilization for insights on operational costs.

Standalone Outdoor

SAFE, RELIABLE, AND ECONOMICALLY VIABLE LIGHTING

Wireless outdoor lighting management ensures that your grounds are properly illuminated in the right place, at the right time. Autani can help you find the balance between energy savings, outdoor safety, and the appropriate light levels needed to maximize the appeal of your facilities. Dimming control at each fixture allows the business manager to adjust the spatial distribution of lighting as well as change the dimming level to lower levels during non-business hours.

PRODUCT RECOMMENDATIONS

Manager with EnergyCenter Software
Serves as central control hub to distribute programming to all fixtures. Controlled on-site or remotely via EnergyCenter software. If your facility already utilizes a Manager to control indoor lighting/HVAC, the same Manager can be used to control outdoor lighting.

Range Extender
Extends the range of the wireless communications. This is especially useful when bridging between long distances outdoors.

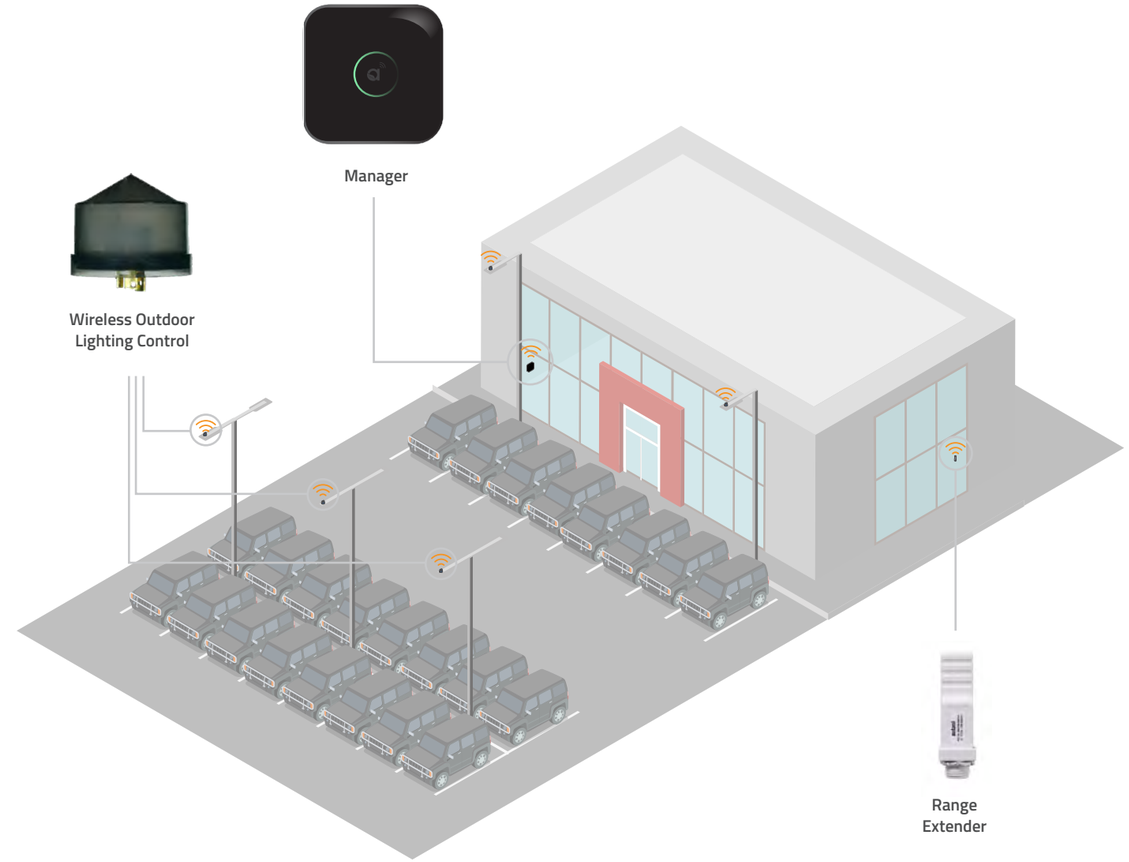
Wireless Outdoor Lighting Control
Controls overhead lighting, allowing fixtures to be commissioned and managed via EnergyCenter software for optimum savings. Supports both on/off and dimming.

CONTROL STRATEGIES

High-End Trim | Institutional Tuning
Set the maximum light level based on customer requirements in each space to prevent overlighting.

Automatic Scheduling & Timeclock
Automatically dim or shut off lighting based on centrally managed schedules.

ESTIMATED TOTAL SAVINGS: 20-30%



BUSINESS OUTCOMES

- Save energy and reduce monthly utility spend to contribute to your bottom line.
- Comply with code requirements and ensure lights are not on when they don't have to be.
- Adjust light levels during different time periods of the night to improve safety and reduce light pollution.
- Extend the life of your outdoor lighting system, reducing maintenance costs.
- Proactively manage your facilities by controlling your energy spend and setting up real-time alerts to minimize damage from failure points.

Hotel Room

OCCUPANCY DRIVEN COMFORT AND COST EFFECTIVE GUEST ROOMS

Autani creates a smarter hotel room through wireless integration of lighting, HVAC, and plug load control within the hotel guest room. Self-powered wireless switches can be located next to the bed to allow occupants to control the room lighting with the press of a button, and occupancy sensors can help manage the room environment more efficiently.

PRODUCT RECOMMENDATIONS

Wireless Thermostat
Centrally controlled and locally integrated with occupancy sensors. Master schedules can be pushed facility-wide or to target thermostats.

Wireless Sensors
Self-powered sensors that install in seconds, supporting daylight harvesting and occupancy / motion sensing.

Wireless Switches
Self-powered switches that install in seconds. Easily commissioned to support dimming and preset light levels.

Plug Load Controller
Allows for wireless monitoring and control of outlets. Integrates with building schedules to allow for calendar events such as holidays.

CONTROL STRATEGIES

High-End Trim | Institutional Tuning
Set the maximum light level based on customer requirements in each space to prevent overlighting.

Daylight Harvesting
Dim indoor and outdoor lighting when daylight is available. Multiple zones are supported where required by code.

Plug Load Control
Manage control of select plug loads for demand management and the elimination of phantom loads.

Automatic Scheduling & Timeclock
Automatically dim or shut off lighting based on centrally managed schedules.

Demand Management
Manage lighting and HVAC electrical loads to limit ratchet charges and peak demand pricing periods.

ESTIMATED TOTAL SAVINGS: 20-30%

BUSINESS OUTCOMES

- Align energy costs and power consumption with vacancy and occupancy.
- Monitor room occupancy for maintenance and daily house cleaning activities.
- Maintain an inviting and comfortable environment for guests while better managing costs.
- Provide alerts to maintenance when heating and cooling units are not operating properly.

Hospitality

Big Box

IMPROVED CUSTOMER EXPERIENCE AND BUILDING MANAGEMENT

Whether your business has a goal of reducing greenhouse gases or reducing expenses to improve your bottom line, Autani's integrated wireless control system equips you with an easy to use building management system that will improve your operating environment and enhance your customers' overall shopping experience.

Autani provides your facility operations manager with the ability to create an inviting environment for your customers while minimizing operational risk and expenses. Multiple sites can be managed from a single location, and Autani's EnergyCenter supports full BACnet integration with centralized facility management software to support unified reporting and management for customers that manage all of their facilities from a single location.

PRODUCT RECOMMENDATIONS

Manager with EnergyCenter Software
Serves as central control hub to distribute programming to all fixtures. Controlled on-site or remotely via EnergyCenter software. If your facility already utilizes a Manager to control indoor lighting/HVAC, the same Manager can be used to control outdoor lighting.

Wireless High Bay Sensor & Fixture Controller
Provides motion sensing optimized for high bay applications. Detected motion triggers changes in lighting and HVAC. Supports wireless on/off and dimming of each fixture.

Wireless Scene Selector
Ideal for larger spaces that require programmed scenes. It requires minimal installation time and commissioning and allows a lighting scene to be selected with a single button.

Wireless Multi-Sensors & Fixture Controls
Integrates occupancy sensing, daylight harvesting and space utilization into the light fixtures and can be pre-installed.

Wireless Switches
Self-powered switches that install in seconds. Easily commissioned to support dimming and preset light levels.

Wireless People Counter
Trigger notifications or contingency processes based on the occupancy of zones in order to enhance the customer experience. For example, self service counters can be switched on or alerts can be given to staff if lines are becoming too long.

BACnet link to customer's central management system (optional).

CONTROL STRATEGIES

Occupancy / Vacancy Sensing
Turn lights on when occupants are in a space and off when they vacate the space. Alternate Functionality: Partial-on and manual-on modes are supported for additional savings and for more stringent local codes.

High-End Trim | Institutional Tuning
Set the maximum light level based on customer requirements in each space to prevent overlighting.

Local Dimming Control
Permit occupants to lower the light level below the high-end trim for comfort and additional savings.

Daylight Harvesting
Dim indoor and outdoor lighting when daylight is available. Multiple zones are supported where required by code.

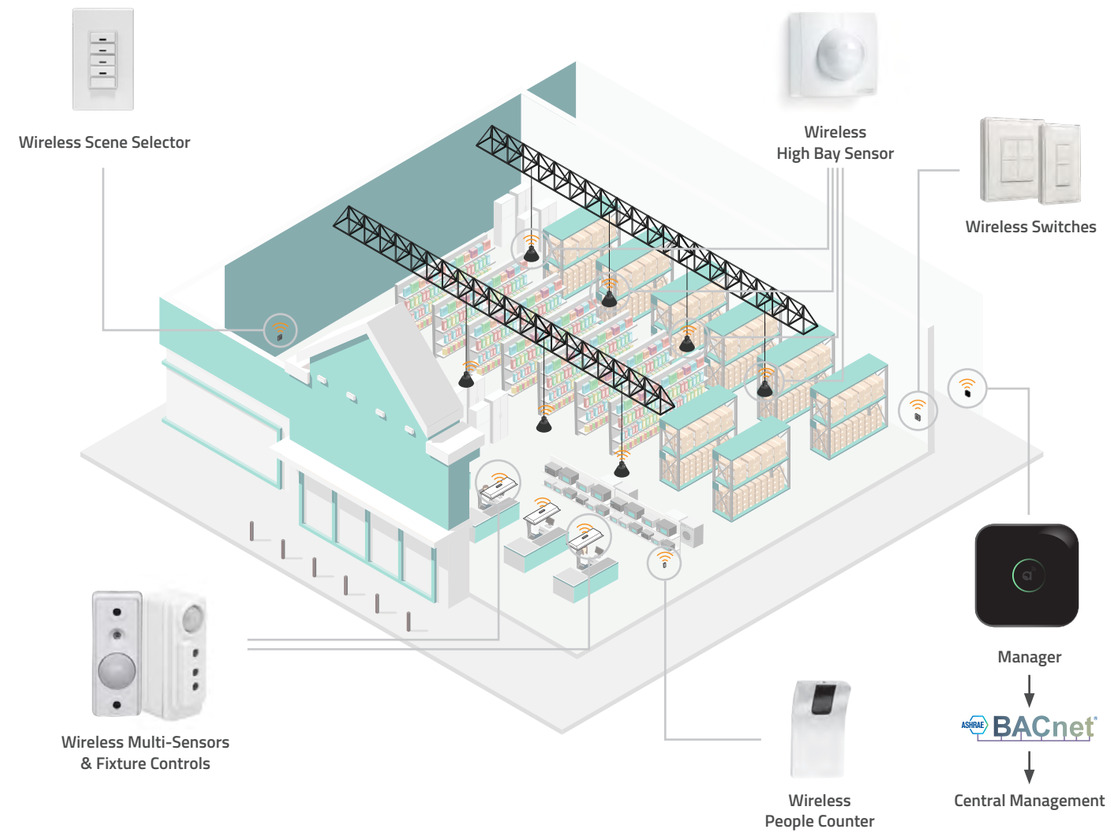
HVAC Control
Manage smart thermostats and sensors centrally to optimize comfort and energy savings via calendar and occupancy based setbacks.

Plug Load Control
Manage control of select plug loads for demand management and the elimination of phantom loads.

Automatic Scheduling & Timeclock
Automatically dim or shut off lighting based on centrally managed schedules.

Demand Management
Manage lighting and HVAC electrical loads to limit ratchet charges and peak demand pricing periods.

ESTIMATED TOTAL SAVINGS: 20-40%



BUSINESS OUTCOMES

- Create immediate positive cash flow with energy savings.
- Maintain an inviting and comfortable environment for your employees and customers while better managing your costs.
- Proactively manage your facilities by controlling your energy spend and setting up real-time alerts to minimize damage from failure points.
- Understand how many customers are in individual aisles, specific departments, and at what times.
- Consider where to dispatch employees in real time to help customers, improving the overall customer experience.

Retail

Franchise / Branch Location

IMPROVED CUSTOMER EXPERIENCE AND FACILITIES INSIGHTS

Autani's Energy Manager with EnergyCenter software is a simple way to monitor and control your lighting and HVAC systems to improve the comfort and productivity for your employees and customers. Autani's wireless integration brings flexibility and reliability, establishing your ideal light levels and temperature settings while creating a conducive environment to conduct business.

System reporting gives you insights into space utilization, occupancy patterns, and system deviations to help you understand how your buildings are performing, reduce your expenses, and improve your bottom line. Moreover, Autani gives you the flexibility and scalability to expand as your business needs change.

PRODUCT RECOMMENDATIONS

Wireless Thermostat
Centrally controlled and locally integrated with occupancy sensors. Master schedules can be pushed facility-wide or to target thermostats.

Wireless Duct Sensor
Easy-to-install duct sensor to monitor the temperature within the HVAC ducts.

Wireless Leak Detector
This can be positioned to alert of any water leakages in the plumbing or HVAC system allowing operators to react before it becomes a much more significant problem.

Wireless Multi-Sensors & Fixture Controls
Integrates occupancy sensing, daylight harvesting and space utilization into the light fixtures and can be pre-installed.

Wireless Switches
Self-powered switches that install in seconds. Easily commissioned to support dimming and preset light levels.

Plug Load Controller
Allows for wireless monitoring and control of outlets. Integrates with building schedules to allow for calendar events such as holidays.

CONTROL STRATEGIES

Occupancy / Vacancy Sensing
Turn lights on when occupants are in a space and off when they vacate the space. Alternate Functionality: Partial-on and manual-on modes are supported for additional savings and for more stringent local codes.

High-End Trim | Institutional Tuning
Set the maximum light level based on customer requirements in each space to prevent overlighting.

Local Dimming Control
Permit occupants to lower the light level below the high-end trim for comfort and additional savings.

Daylight Harvesting
Dim indoor and outdoor lighting when daylight is available. Multiple zones are supported where required by code.

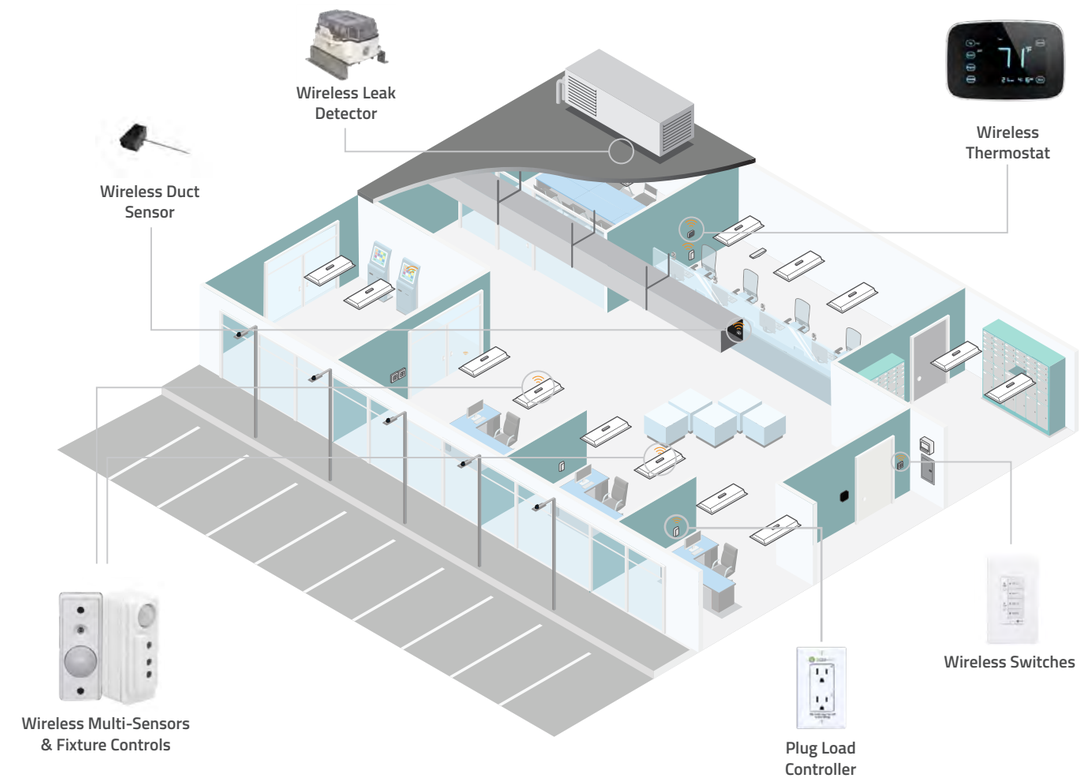
HVAC Control
Manage smart thermostats and sensors centrally to optimize comfort and energy savings via calendar and occupancy based setbacks.

Plug Load Control
Manage control of select plug loads for demand management and the elimination of phantom loads.

Automatic Scheduling & Timeclock
Automatically dim or shut off lighting based on centrally managed schedules.

Demand Management
Manage lighting and HVAC electrical loads to limit ratchet charges and peak demand pricing periods.

ESTIMATED TOTAL SAVINGS: 20-50%



BUSINESS OUTCOMES

- Reduce eye strain from over or under lighting to improve productivity.
- Improve environmental comfort where healthy, happy people contribute more while constructing a higher performing company.
- Log space utilization for insights on operational costs.
- Align energy costs with comfort and occupancy requirements.
- Manage multiple locations remotely and from a central location.

Retail

Grocery Store

IMPROVED CUSTOMER EXPERIENCE AND IMPACT TO BOTTOM LINE

Autani's integrated wireless control system equips you with an easy-to-use building management system that will improve your operating environment while creating a more pleasant overall shopping experience for your customers.

Autani provides your facility operations manager with the ability to create an inviting environment for your customers while minimizing operational risk and expenses. Multiple sites can be managed from a single location, ensuring your critical equipment and building systems with associated energy saving control strategies are functioning properly.

PRODUCT RECOMMENDATIONS

Wireless Room Controller
Integrates with existing wiring to provide fixture zoning. Allows wireless integration with sensors and switches.

Wireless Temperature Sensors
These self-powered sensors can be used in combination to create an average temperature reading of key customer areas to ensure more efficient HVAC activation.

Wireless Thermostat
Centrally controlled and locally integrated with occupancy sensors. Master schedules can be pushed facility-wide or to target thermostats.

Wireless People Counter
Allows protocols to engage based on the occupancy of defined zones.

Wireless Multi-Sensors & Fixture Controls
Integrates occupancy sensing, daylight harvesting and space utilization into the light fixtures.

Wireless Refrigeration Sensors
Monitors refrigeration temperature, providing alerts for maintenance issues before food spoils.

Wireless Sensors
Self-powered sensors that install in seconds, supporting daylight harvesting and occupancy / motion sensing

Wireless Meter
Provides revenue grade metering, allowing you to know the real-time cost of your energy usage.

Wireless Outdoor Lighting Control
Controls overhead lighting, allowing fixtures to be commissioned and managed via EnergyCenter software for optimum savings.

Plug Load Controller
Allows for wireless monitoring and control of outlets. Integrates with building schedules to allow for calendar events such as holidays.

CONTROL STRATEGIES

Occupancy / Vacancy Sensing
Turn lights on when occupants are in a space and off when they vacate the space. Alternate Functionality: Partial-on and manual-on modes are supported for additional savings and for more stringent local codes.

High-End Trim | Institutional Tuning
Set the maximum light level based on customer requirements in each space to prevent overlighting.

Local Dimming Control
Permit occupants to lower the light level below the high-end trim for comfort and additional savings.

Daylight Harvesting
Dim indoor and outdoor lighting when daylight is available. Multiple zones are supported where required by code.

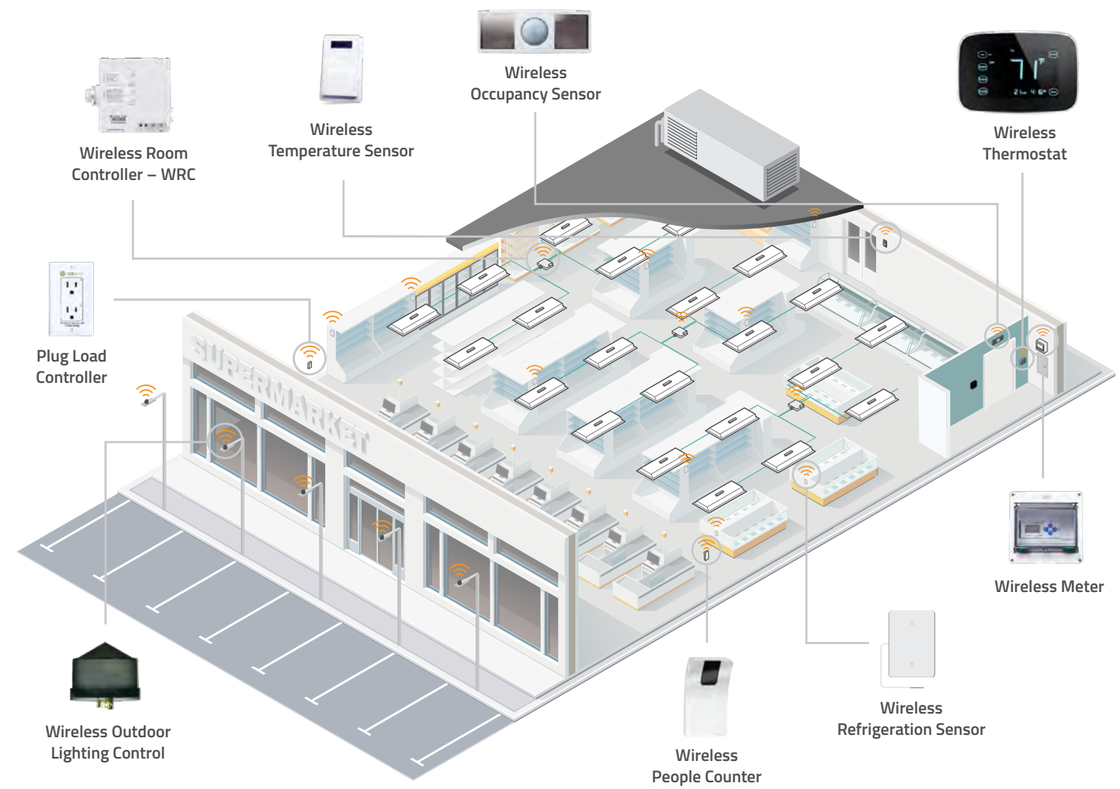
HVAC Control
Manage smart thermostats and sensors centrally to optimize comfort and energy savings via calendar and occupancy based setbacks.

Plug Load Control
Manage control of select plug loads for demand management and the elimination of phantom loads.

Automatic Scheduling & Timeclock
Automatically dim or shut off lighting based on centrally managed schedules.

Demand Management
Manage lighting and HVAC electrical loads to limit ratchet charges and peak demand pricing periods.

ESTIMATED TOTAL SAVINGS: 20-40%



BUSINESS OUTCOMES

- Create immediate positive cash flow with energy savings.
- Keep critical equipment operating and reduce food waste.
- Maintain an inviting and comfortable environment for your employees and customers while managing your costs.
- Manage your facilities proactively by controlling your energy spend and setting up real-time alerts to minimize damage from failure points.
- Understand how many customers are in individual aisles and specific departments.
- Consider where to dispatch employees in real time to help customers, improving the overall customer experience.

Retail

Additional Support

Here is what you need to know

For additional support and questions, please contact us at:

443.320.2233

7090 Columbia Gateway Drive, Suite 140
Columbia, MD 21046

General Inquiries
information@autani.com

Support
support@autani.com

Applications
applications@autani.com

Quotes
quotes@autani.com

Please visit us online for additional support

Online tools and calculators
www.autani.com/calculators

Specifications
www.autani.com/building-specs/

autani
building controls

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