Nomad Go Customer Success Story: Greystar

Using AI to make buildings more sustainable, energy efficient & healthier

"Nomad Go's ability to save Greystar variable energy costs, increase the net asset value of our buildings, and reduce greenhouse gas emissions is a game changer."

– Adrian De Smul, Senior Director of Customer Experience and Innovation, Greystar

Background:

Greystar, a leader in multi-family development and property management with over 2,000 properties, actively prioritizes energy reduction and environmental sustainability across their global portfolio. Greystar is constantly innovating to bring new solutions into their properties to improve the tenant experience, provide additional value to their clients, and increase asset profitability.

In March 2021, Greystar deployed Nomad Go's AI smart building controls to improve HVAC efficiency in common areas at Ascent South Lake Union, a luxury residential high-rise in downtown Seattle. The three goals of the deployment were to reduce the properties' variable energy operating expenses, increase net asset value, and decrease energy-related greenhouse gas emissions.

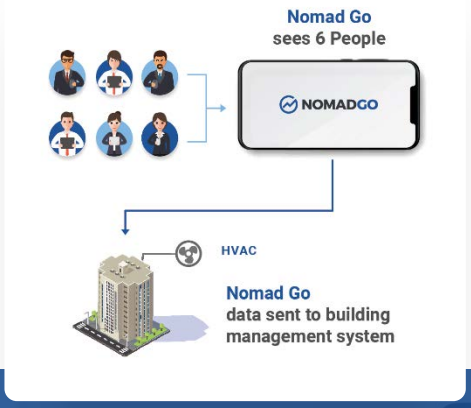
Before Nomad Go: Fixed HVAC Schedules Led to Wasted Energy, Emissions & Costs

Located on the 21st floor of the Ascent building, the SkyLounge is a 24-hour, multi-purpose space that tenants use for meetings, entertainment, and more. As with all the common areas at the Ascent building, Greystar relies on a fixed schedule to operate their HVAC in order to maintain the room for use any time during the day or night. As a result, the SkyLounge's HVAC schedule was set to operate 22 out of 24 hours of the day, consuming energy regardless of if the room was occupied or not. Based on current energy billing statements, it was estimated that HVAC energy costs for the building amenity areas were in excess of $52,000 per year.

Solution: HVAC Controlled by Live Occupancy

While Greystar leadership had previously prioritized utility costs as a means of reducing variable operating expenses, they found that existing solutions (motion detectors, CO2 sensors, people counters) lacked the precision, ease-of-use, and scalability to make a significant impact across the portfolio.

Nomad Go implemented their AI smart building solution at Ascent by installing smart sensors that use computer vision to monitor real-time occupancy of the space. Working with their partner, ATS Automation, Nomad Go converted the occupancy number into data that integrates directly with the existing building automation system in place, Johnson Controls Metasys.



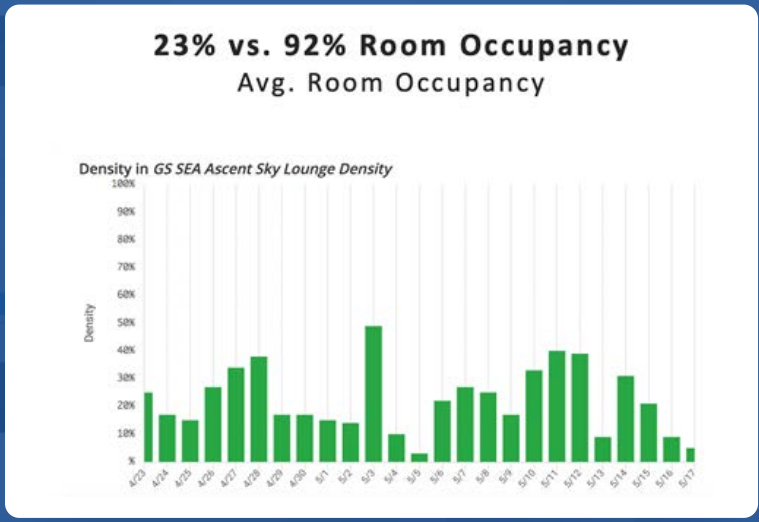
The integration was accomplished using AI combined with edge computer vision to create a real-time occupancy count converted to MQTT/BACnet that instantly controls the HVAC.

With real-time occupancy data now coming from the SkyLounge, the sequence of operations for the Johnson Controls system was configured to use live occupancy as a primary trigger for HVAC operations, allowing the unit to shut down when no occupancy was detected, reducing run-time and energy consumption throughout the day.

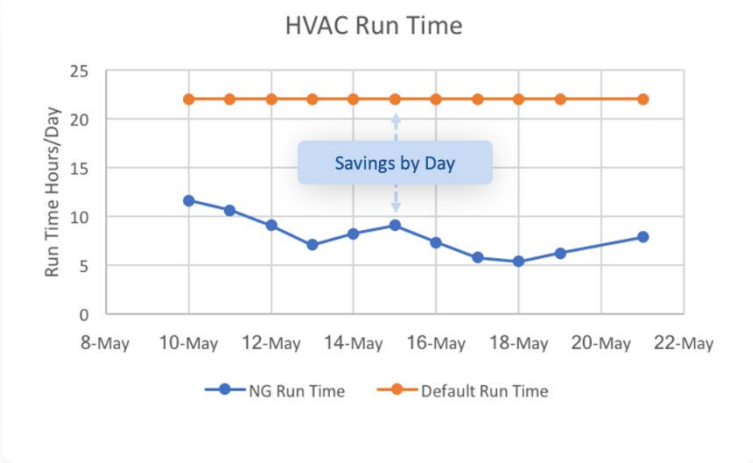
Results

50%+ reduction in HVAC run-time, lowering energy costs and improving sustainability

Previously the schedules were running HVAC 92% of the day (12 am – 10pm). Using live occupancy, Nomad Go found that actual occupancy averaged approximately 23% of the day.



To ensure that the HVAC was not powering on and off, once the system detected occupancy it stayed running for 15-30 mins regardless of if people stayed in the room. As a result, on average there was 34% HVAC usage vs 92% with the set schedules leading to 58% savings in HVAC usage. This also reduces wear and tear on equipment and maintenance.



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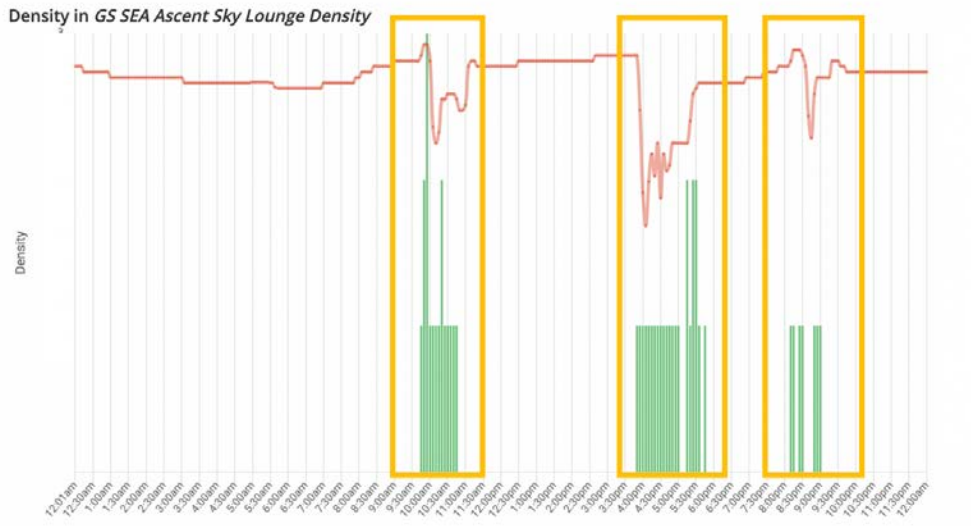
Improving Air Quality and Comfort

Another benefit of controlling HVAC based on live occupancy was an improvement in air quality ventilation. Existing control systems rely on reactive technologies, such as CO2 sensors that can take up to 30 mins to approximate occupancy. With Nomad Go, the air dampers are instantly adjusted based on the number of people in the room, creating a healthier and more comfortable environment for tenants.

Note how ventilation is immediately turned on the moment people enter the space:



Conclusion:

With Nomad Go's AI system deployed at Ascent, Greystar reduced HVAC usage by 58% which translated to improving net asset value by over $300,000. This energy savings also translates to reducing yearly energy-related CO2 emissions by over 280 tons.

"We are excited to continue expanding the use of Nomad Go across our portfolio to capture the business and environmental impact."

– Adrian De Smul, Senior Director of Customer Experience and Innovation at Greystar

About Nomad Go

Nomad Go Visual Intelligence allows businesses to understand and improve physical environments like never before. With our out-of-the box computer vision solution delivered on the edge, businesses across all industries can unlock actionable knowledge about any environment to make them healthier, sustainable, and energy efficient.

For More Information

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