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Johnson Controls

Transforming Graha CIMB Niaga Building

A New Era of Energy Efficiency and Sustainability with Johnson Controls

The Graha CIMB Niaga Building, an iconic office tower in Jakarta, faced challenges with its HVAC system and overall energy consumption. PT. Grahaniaga Tatautama, the building owner, partnered with Johnson Controls to transform the building infrastructure, integrating cutting-edge digital technology to elevate energy efficiency, optimise HVAC performance and significantly boost tenant satisfaction.

About Graha CIMB Niaga Building

Built in 1991, the Graha CIMB Niaga is a prominent office building situated in the central business district of Jakarta.

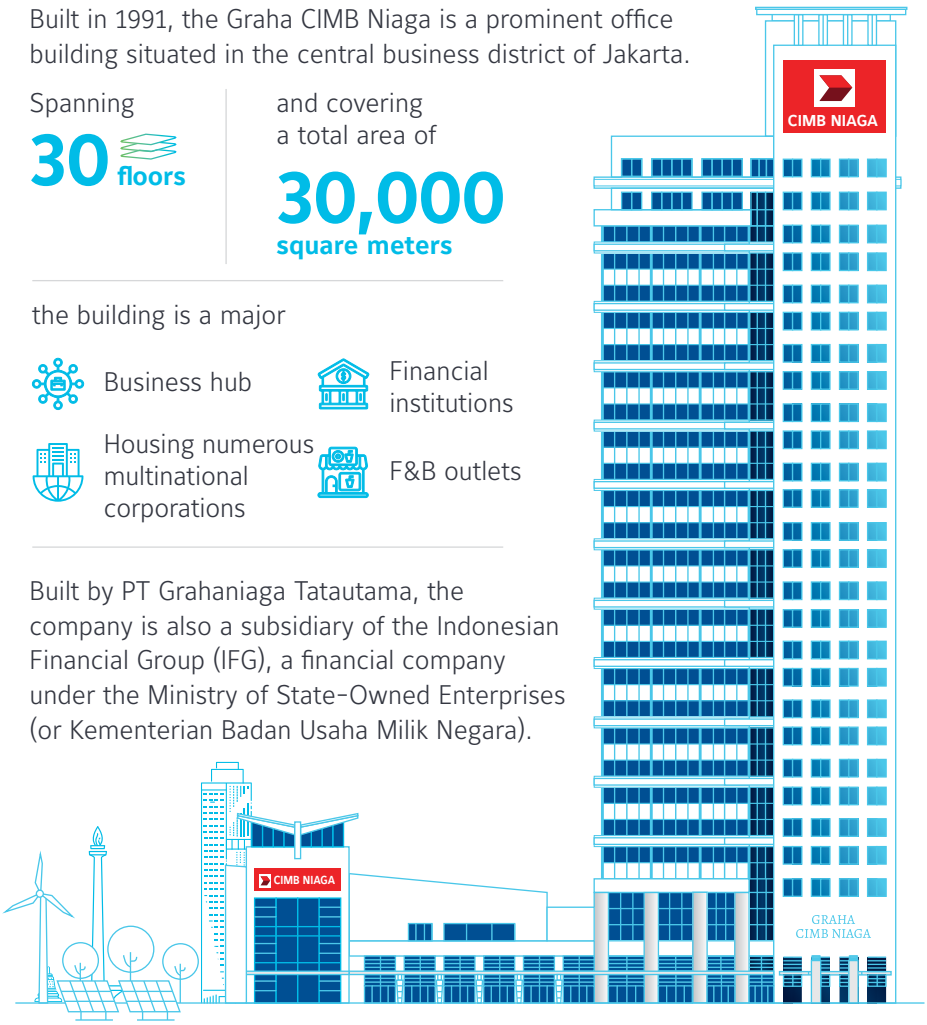
Spanning
30 floors

and covering
a total area of
30,000 square meters

the building is a major

- Business hub
- Financial institutions
- Housing numerous multinational corporations
- F&B outlets

Built by PT Grahaniaga Tatautama, the company is also a subsidiary of the Indonesian Financial Group (IFG), a financial company under the Ministry of State-Owned Enterprises (or Kementerian Badan Usaha Milik Negara).



Over the years, the building has been recognised with numerous prestigious awards including the Green Building Platinum certification by BCAI Singapore, and secured first-place awards in the Energy Management and Energy Efficient Building categories at national and ASEAN levels.

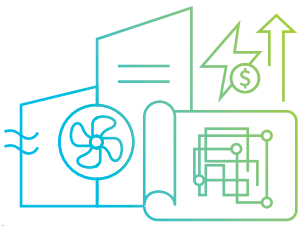
Green Building Platinum certification

In addition, the building management holds ISO certifications in quality, environmental management and occupational safety.

ISO certifications

Challenges

Recognising the critical need for sustainability, PT Grahaniaga Tatautama, the building's owner, sought to enhance energy efficiency while controlling costs, reinforcing its commitment to eco-friendly practices and long-term operational excellence.



A primary concern was the building's high energy consumption. The existing complex HVAC system, comprising five zones on each floor, contributed to excessive energy use. The complexity was compounded by unsupervised energy usage during overtime office hours, leading to high costs and difficulties in accurately allocating these expenses.

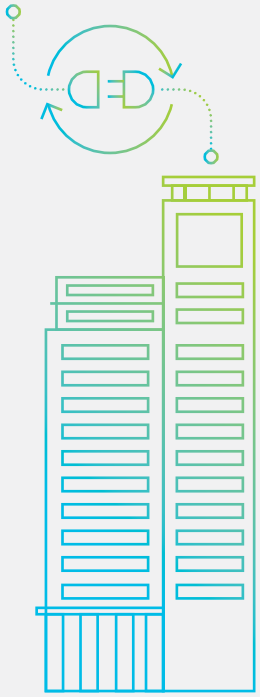
The building's intricate HVAC setup, necessary for maintaining optimal indoor climates, often resulted in inconsistent temperature control and discomfort for tenants. The lack of a centralised monitoring system made it difficult to manage and optimise energy use effectively.

Working within an operational building imposed further restrictions. Construction activities, especially those generating loud noises, could only be performed outside of office hours, typically from 8 pm to 6 am. Occasionally, occupants worked late into the night, delaying the start of work until 3 am. Additionally, any work impacting tenant areas required careful scheduling and strict adherence to permits obtained from tenants to minimise disruptions.

Solutions

Over a nine-month period, Johnson Controls will deliver a state-of-the-art chiller plant optimisation system, leveraging Metasys building automation system and facility performance specialists to optimise building operations.

The advanced Metasys system provides centralised monitoring and control of the building's HVAC zones, enabling real-time adjustments to ensure optimal performance and energy efficiency. By leveraging the Metasys system, the building management monitors chiller temperature and energy consumption more effectively, thereby reducing unnecessary energy usage and costs.



Johnson Controls technical experts are pivotal to the project. Their extensive knowledge and expertise ensure seamless integration of the new system with the building's existing infrastructure. Meticulous planning and execution are essential to maintain the integrity of the current equipment. By strictly adhering to proper work permits, detailed documentation and rigorous safety procedures, Johnson Controls demonstrates compliance with all standard protocols, resulting in a smooth and safe installation process.

Results

Upon completion, the owner of the Graha CIMB Niaga Building will enjoy numerous benefits, including:

- Easily monitoring energy consumption in real-time
- Accurately tracking energy usage and allocating costs to tenants who use energy during overtime office hours
- Improving transparency and enabling more precise billing
- Enhancing tenant comfort by ensuring consistent and reliable temperature control across all floors
- Reducing unplanned downtime through predictive, data-driven maintenance
- Increasing building efficiency without the need for CAPEX investments in retrofits

These advantages significantly elevate the working environment, solidifying the Graha CIMB Niaga Building's reputation as a premier destination for top-tier businesses.