

ENHANCE HVAC ENERGY SAVING, OCCUPANT COMFORT AND PRODUCTIVITY WITH LAST MILE COOLING



Confederation of Indian Industry



Winner of the 23rd CII National
Award for Excellence in Energy
Management 2022 &
7th iNFHRA Workplace
Excellence Conference and Awards

Zone Based Smart Cooling

#OccupantCentricArchitecture

Honeywell

A SMARTER HVAC SOLUTION FOR SUSTAINABLE BUILDINGS

Climate change is forcing a shift to more energy efficient cooling

Honeywell's building technologies help deliver frictionless experiences, healthier environments, real-time visibility, safety, security, sustainability, and efficiency.

WHY THIS SOLUTION ?

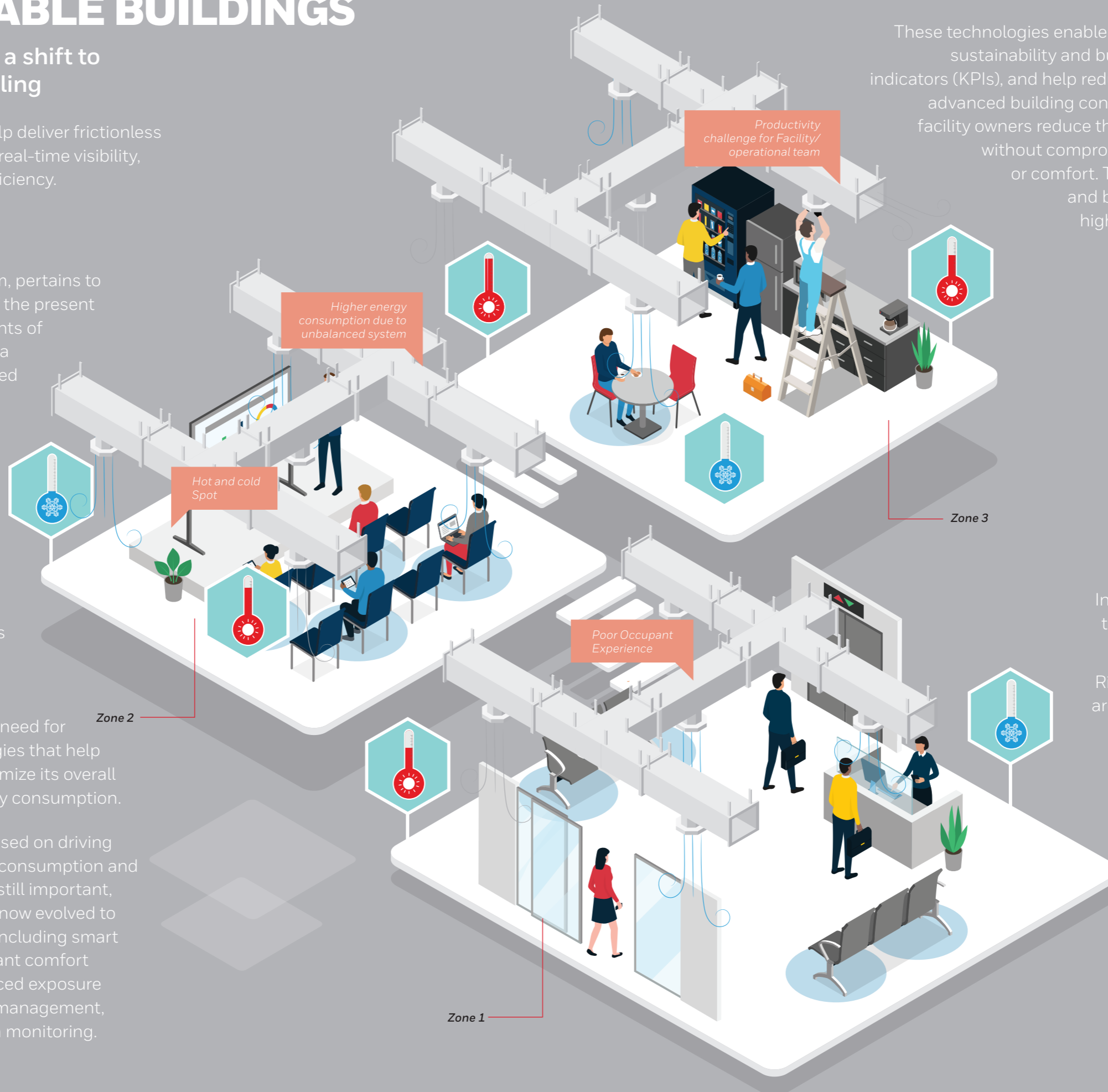
Sustainability, in its most humble form, pertains to development that meets the needs of the present without compromising the requirements of future generations. Today, the idea of a successful business has rapidly evolved to include the ability of an entity to move beyond profit, and to upgrade its business model to a sustainable one. This objective has now become a strategic business imperative and is being augmented by the collective efforts of businesses, consumers, governments, and civil society.

Today, building owners and occupants are more conscious than ever about the health and safety of their building environments. Urbanization has both reinforced and amplified the growing need for sustainable operations and technologies that help enhance the safety of a building, minimize its overall carbon footprint and reduce its energy consumption.

Building technologies are largely focused on driving efficiencies, through reduced energy consumption and saved costs. While these aspects are still important, the definition of a smart building has now evolved to include a spectrum of requirements, including smart zone-based cooling solutions, occupant comfort with improved indoor air quality, reduced exposure to contaminants, carbon emissions management, remote monitoring and real-time data monitoring.

These technologies enable real-time monitoring of critical sustainability and building health key performance indicators (KPIs), and help reduce energy consumption using advanced building control capabilities. They also help facility owners reduce the carbon footprint of buildings without compromising on occupant well-being or comfort. Today, more facilities managers and building owners are demanding higher levels of insight and control over building operations

Facility owners are looking beyond occupant safety and comfort into the operational sustainability of buildings to reduce their carbon footprint.



Traditional HVAC Systems Deliver Uneven Cooling



Facility Managers Invest Time & Energy to Resolve this Issue



Rising Energy Costs are Driving the Need for Innovation



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REAL-TIME HVAC CONTROL FOR SMART LAST-MILE COOLING

Zone-level damper control based on sensor input

The system enables the Operations/Facility Management team to be more productive, by reducing the number of service calls from users, on account of sub-optimal indoor climate conditions.

HOW DOES IT WORK?

The Honeywell Zone Based Smart Cooling system uses a Distributed array of wireless Climate and PIR sensors, to gain rich insights of the occupied Space and its HVAC behavior. This "Real-Time" presence and climate information, along with Honeywell's algorithm, enables wireless controllers/gateway to continuously optimize air distribution in order to realize greater Energy Savings and Occupant Comfort, vide last mile cooling.

-  Lower TCO with Up To 40%* Energy Savings
-  Reduce Hot and Cold Spots to improve occupant comfort
-  Easy Wireless Installation for New & Retrofit Sites
-  Improved Facilities Team Productivity
-  Combined HVAC and Lighting Control
-  Scheduled Smart Cooling Across Zones

*Versus based case on fixed speed systems.

niagara⁴ | Open Framework, for easy BMS Integration



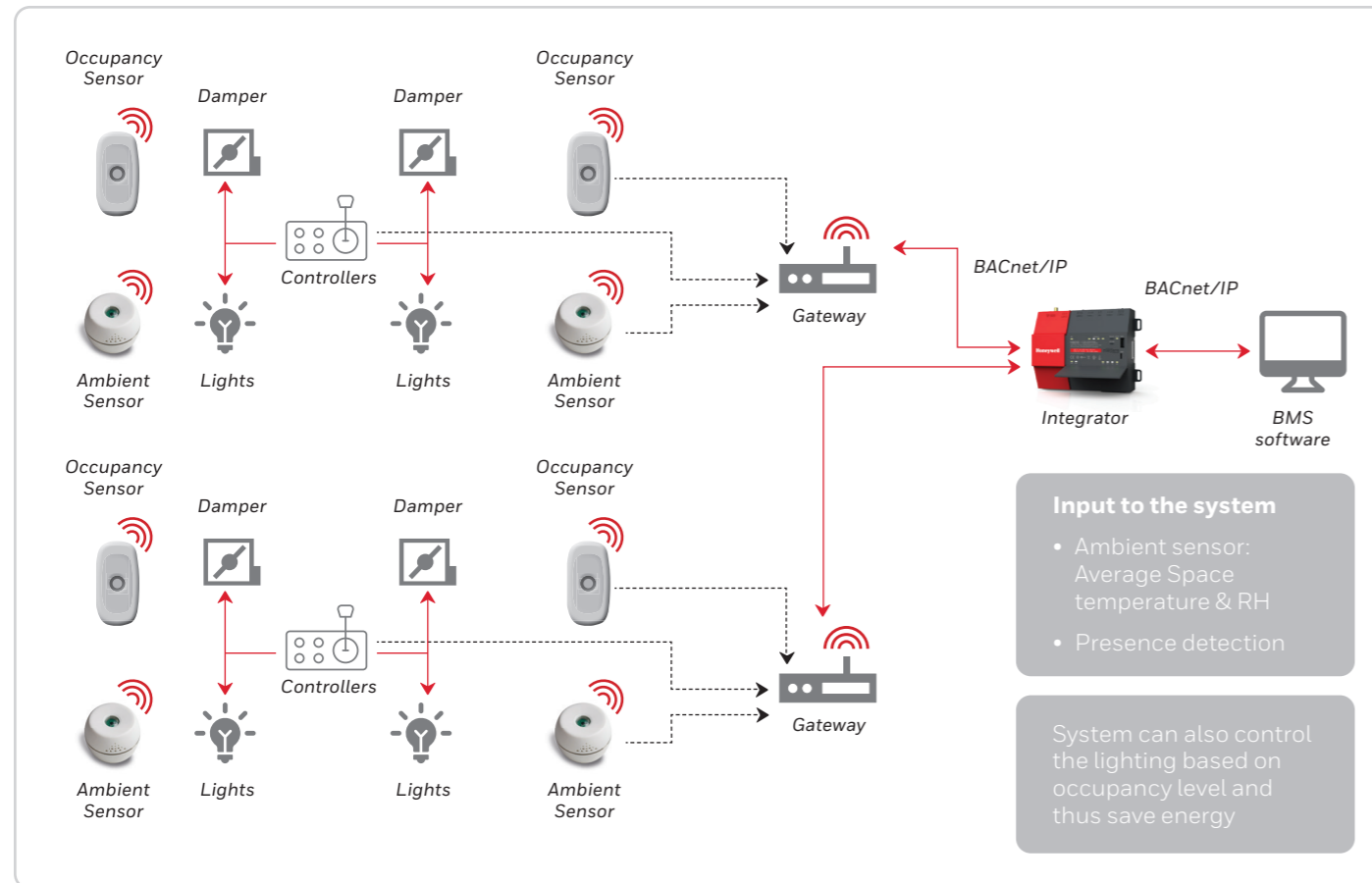
Honeywell's innovative and award-winning Zone Based Smart Cooling System delivers occupant-centric cooling, helping building owners maintain high occupancy rates through exceptional end-user experiences.



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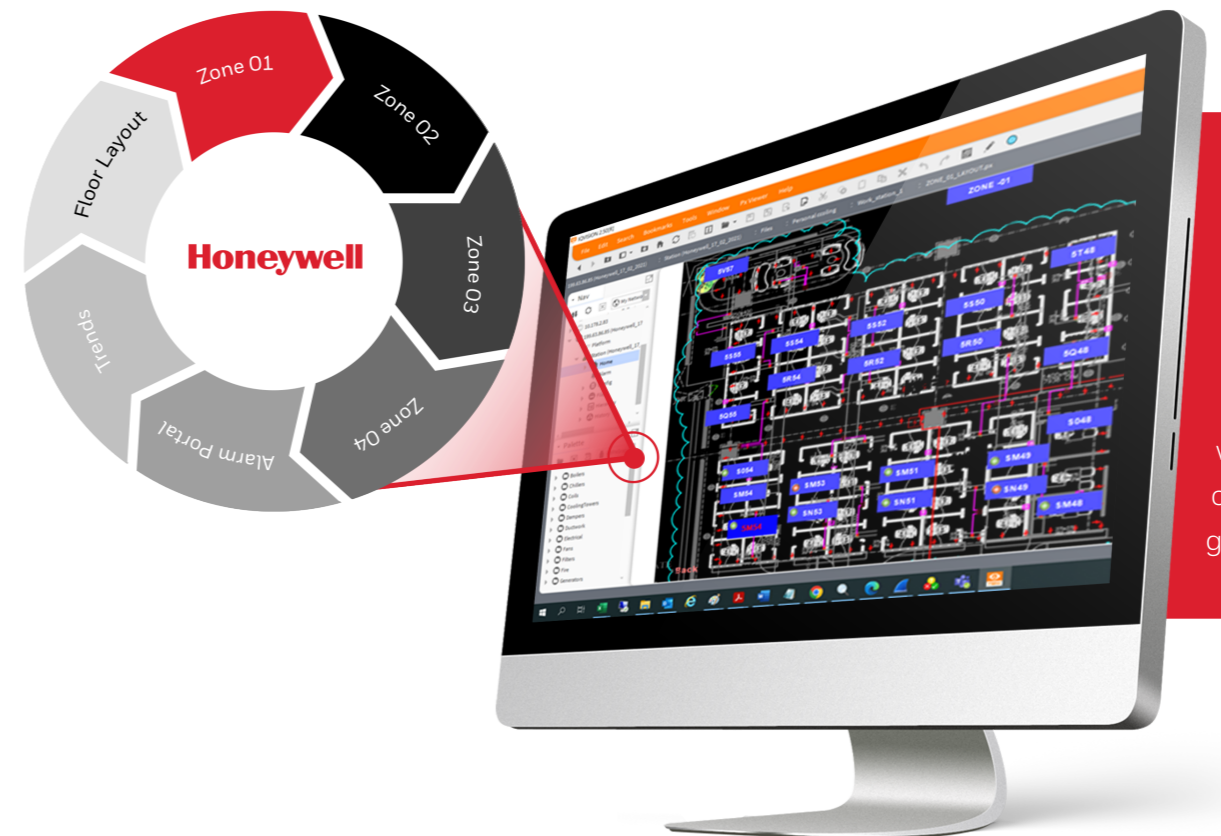
Honeywell is transforming HVAC with a more sustainable approach

The previous generation of HVAC systems are some of the most energy-hungry infrastructure in modern buildings. Honeywell's award-winning occupant-centric architecture enhances traditional HVAC designs approach by taking an occupant-centric and zone-based approach.



A closer look at the Zone Based Smart Cooling System

Zone Based Smart Cooling System's occupancy and ambient sensors communicate encrypted data to the assigned Zonal Gateway. Wireless Analog controllers then control damper position of individual diffusers.

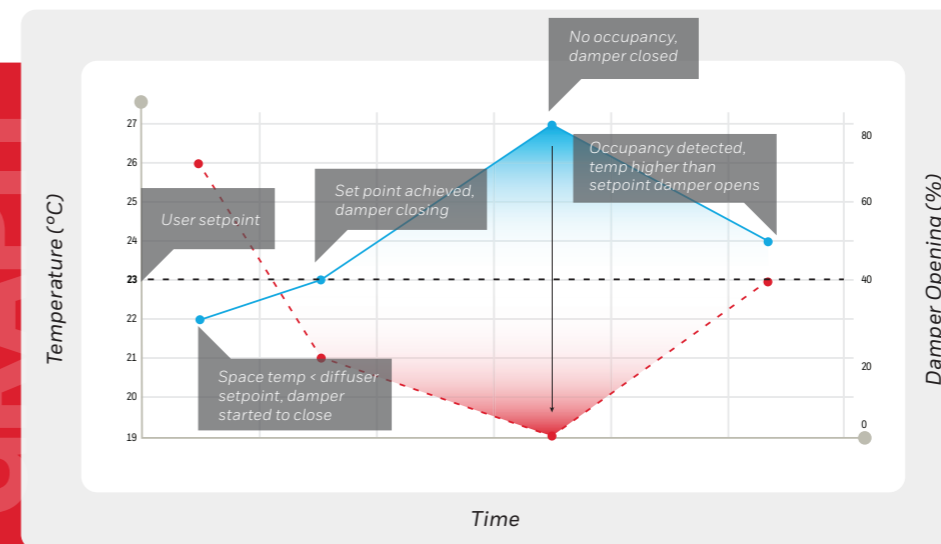


Zone Based Smart Cooling enables unified control that is completely scalable, with wireless sensors, controllers, and gateways.



- Distributed sensors, pick up occupancy & temperature.
- Feed details to controller on the "Live" Status.
- Based on the Micro Zone requirements, constant commands are given to the Damper Actuator which in-turn controls the conditioned air from the Diffuser.
- By this continuous action we can realize energy savings of up to 40%*.

*Versus based case on fixed speed systems.



Air flow to each zone is regulated by adjusting the electrically actuated damper position in a HVAC diffuser outlet.

Application Areas

Compatible with both retrofit and new projects, across diverse applications



Office Spaces



Healthcare



Airports



Retail



Banks



Educational Institutions

Recognition from peers and industry bodies

The Honeywell Zone Based Smart Cooling System has been lauded by leading industry bodies, for innovation, energy efficiency, and sustainability.



2022 CII Most Innovative Project Award under Energy Efficiency

Bengaluru Campus-1 was awarded Most Innovative Project for its Zone Based Smart Cooling System under Energy Efficiency – developed by Honeywell Engineers in Bengaluru



iNFHRA Workplace Excellence Award

Bengaluru Campus-1 was awarded Most Innovative Project for its Zone Based Smart Cooling System – developed by Honeywell Engineers in Bengaluru

For more information,

www.honeywellbuildings.in

Call: 000-8000-502167

Email: HBT-Indiabuildings@honeywell.com

Honeywell HBT India Buildings

Unitech Trade Center, 5th Floor, Sector-43,
Block C, Sushant Lok Phase - I,
Gurgaon - 122 002.

Disclaimer:

Owing to continuous product Development, specification are subject to Change without prior notice, check with nearest honeywell representative for latest information.

Zone Based Smart Cooling | 01 | 10/22
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**THE
FUTURE
IS
WHAT
WE
MAKE IT**

Honeywell