

HONEYWELL HOSPITALITY INNCOM DIRECT

Hotel Energy Management System

May 8, 2026

Agenda

- **Introductions**
- **Our value proposition**
- **Energy Management and components**
- **Reporting**
- **Getting Started**
- **Q & A**

INNCOM Value Proposition

- **Energy Control with Guest Comfort**
 - Easy to use, intuitive controls
 - Automatically welcomes the guests
 - Energy management (with advanced PIR)
 - Supports corporate sustainability programs and statutory regulations
- **Advanced Management Information**
 - INNcontrol 5/Honeywell Forge
 - Greater productivity, improved guest experience
- **Expanded Functionality Through Integration**
 - On-line door locks, PMS, BMS and other functions.



Global Brands Served



INNCOM Direct – Energy Management System

- 01** Standalone
- 02** Door Signal - YES or NO
- 03** Networking – Guest and Property Benefits
- 04** Common Area Scheduling
- 05** Lighting Control

Energy Savings on Guestroom HVAC			
Networked EMS	25-40%	Property-wide Hospitality IoT with PMS integration	   
Integrated Room Automation System	20-30%	Hospitality IoT in the Guestroom	  
Standalone EMS	20-30%	Motion Detection + Door Sensor	 
	15-25%	Motion Detection Only	
Traditional Thermostat	0%		

	Motion Detection	In-room sensors detect the presence of guests.
	Door Sensor	Sensor detects when a door is open or closed.
	Hospitality IoT	Integration with in-room devices.
	PMS Integration	Integration with PMS system for check-in and check-out data.

¹STR: U.S. hotel performance for Q2 2019*, July 22, 2019

² based on HVAC runtime reduction vs. ETM (traditional thermostat mode) in hotels with average occupancy and < 500 rooms

³Blanchard, J. U.S. Dept. of Energy. "Guest Room HVAC Occupancy-Based Control Technology Demonstration". September 2012

STAND-ALONE EMS – WITH MOTION DETECTION ONLY

SEQUENCE OF OPERATIONS

GUEST INITIAL ENTRY TO THE ROOM

- If the room did not see motion for **8 Hours** it was declared **Virtual/Unrented** and maintained a temp between **62° F (16.7°C)** and **80° F (26.6°C)**. When a PIR sensor sees motion the HVAC turns on to an initial “check-in” temperature of **72° F (22.2° C)**.
- If motion is detected in the room, the temperature is maintained **+/-2° F (1.1° C)** around the most recent temperature setting.



RENTED/OCCUPIED MODE

- Motion is detected.
- Room is declared **Rented/Occupied**.
- Temperature is maintained **+/-2° F (1.1°C)** around the target temperature.
- If the guest uses the thermostat, the temperature band tightens to **+/-1° F (0.5°C)**.

RENTED/UNOCCUPIED MODE

- With Motion Only control the thermostat also uses an onboard light sensor with the PIR to assist in determining the Occupancy condition of a guest room.
- Two time frames of **4.0 Hrs/8.0 Hrs** are used with a room reading of **Light/Dark** for the **Rented/Unoccupied** state. If the room goes suddenly dark after seeing motion the logic assumes the guest has retired for the night.
- Temperature is maintained **+/-4° F (2.2°C)** around the target temperature for a **Rented/Unoccupied** room.

NOTE: - Lighting control with motion detection only is not normally recommended - a door switch or signal from the entry door lock is needed for proper operation.

VACANT

UNRENTED MODE - STAFF

- If the guest has checked out, the staff can declare the room **Unrented** before they leave the room.
- A key sequence is entered at the thermostat, then if the room does not see any motion after **3 minutes**, the room is declared **Unrented/Unoccupied**.
- Temperature is maintained between **62° F (16.7°C)** and **80° F (26.6°C)**.

UNRENTED MODE - AUTO

- If motion is not detected within **8 Hours** the room is declared **Unrented/Unoccupied** and is virtually checked out.
- The temperature is maintained between **62° F (16.7°C)** and **80° F (26.6°C)**.

Please Note: All values in **RED** are default settings and can be changed based on property preferences.

STAND-ALONE EMS – WITH MOTION DETECTION AND DOOR SWITCH

SEQUENCE OF OPERATIONS

GUEST INITIAL ENTRY TO THE ROOM

- If the room did not see motion for **8 Hours** it was declared **Virtual/Unrented** and maintained a temp between **62° F (16.7°C)** and **80° F (26.6°C)**. When the door opens the HVAC turns on to an initial "check-in" temperature of **72° F (22.2° C)**.
- If motion is detected in the room, the temperature is maintained **+/-2° F (1.1°C)** around the temperature setting.



With **Lighting Control**, as soon as the guest opens the door, lighting is power enabled from either a master relay or with a designated "Welcome Scene".

RENTED/OCCUPIED MODE

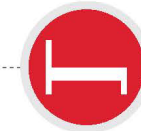
- Door switch or lock signals to the thermostat as a guest enters.
- Motion is detected within **10 Minutes**.
- Room is declared **Rented/Occupied**.
- Temperature is maintained **+/-2° F (1.1°C)** around the target temperature.
- If the guest uses the thermostat, the temperature band tightens to **+/-1° F (0.5°C)**.



When a room is in the **OCCUPIED MODE** the guest has complete control of the lighting.

RENTED/UNOCCUPIED MODE

- Door switch/lock signals to the thermostat that the guest is using the door.
- If motion is not detected within **10 minutes** the room is declared **Rented/Unoccupied**.
- Temperature is maintained **+/-4° F (2.2°C)** around the target temperature.



When a room is declared **UNOCCUPIED** the lights will shut off after **10 additional minutes**. When the guest returns to the room the lights return to the same state as when the guest left.

VACANT

UNRENTED MODE - STAFF

- If the guest has checked out, the staff can declare the room **Unrented** before they leave the room.
- A key sequence is entered at the thermostat, then if the door closes within **3 minutes**, the room is declared **Unrented/Unoccupied**, if **controlled the lights will shut off**.
- Temperature is maintained between **62° F (16.7°C)** and **80° F (26.6°C)**.



UNRENTED MODE - AUTO

- If no motion is detected for an additional **8 Hours** the room is seen as a **Virtual Check-Out** and declared **Unrented/Unoccupied**. Note, as soon as the room entered the **UNOCCUPIED MODE** the lights shut off.
- The temperature is maintained between **62° F (16.7°C)** and **80° F (26.6°C)**.

Please Note: All values in **RED** are default settings and can be changed based on property preferences.

NETWORKED EMS – WITH PMS INTEGRATION

SEQUENCE OF OPERATIONS

PMS CHECK-IN

- Guests check-in at the Front Desk.
- The room is declared **Rented**.
- The thermostat in the room turns on to an initial “check-in” temperature of **72° F (22.2° C)**.
- Temperature is maintained **+/-2° F (1.1° C)** around the target temperature.

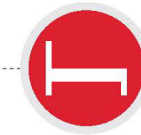


RENTED/OCCUPIED MODE

- Door switch or lock signals to the thermostat as a guest enters.
- Motion is detected within **10 Minutes**.
- Room is declared **Rented/Occupied**.
- Temperature is maintained **+/-2° F (1.1° C)** around the target temperature.
- If the guest uses the thermostat, the temperature band tightens to **+/-1° F (0.5° C)**.

RENTED/UNOCCUPIED MODE

- Door switch/lock signals to the thermostat that the guest is using the door.
- If motion is not detected within **10 minutes** the room is declared **Rented/Unoccupied**.
- Temperature is maintained **+/-4° F (2.2° C)** around the target temperature.



With Lighting Control, as soon as the guest opens the door, lighting is power enabled from either a master relay or with a designated “Welcome Scene”.

When a room is declared **UNOCCUPIED** the lights will shut off after **10 additional minutes**. When the guest returns to the room the lights return to the same state as when the guest left.



Light control can be enabled or disabled when staff enter an **UNRENTED** room, when they leave the room returns to **UNOCCUPIED** and the lights shut off after **3 minutes**



UNRENTED/UNOCCUPIED MODE

- Door switch signals the thermostat as the staff person exits.
- If motion is NOT detected within **3 minutes**, the room is declared **Unrented/Unoccupied**.
- Temperature is maintained between **62° F (16.7° C)** and **80° F (26.6° C)**.

UNRENTED/OCCUPIED MODE

- Door switch signals the thermostat as a staff person enters the room.
- If motion is detected within **2 minutes**, the room is declared **Unrented/Occupied**.
- If no previous staff member adjusted the target temperature after the checkout, the temperature is maintained between **62° F (16.7° C)** and **80° F (26.6° C)**.
- If the staff person uses the thermostat, temperature is maintained between **+/-2° F (1.1° C)** around the new staff target temperature.
- Staff Clipping prevents heating higher than **75° F (23.9° C)** and cooling below **68° F (20° C)**.
- The next staff member to enter this room will be treated to the same staff set point left by the previous staff person (if they interacted with the thermostat).

CHECK-OUT

- A person checks out at the front desk.
- Room is declared **Unrented/Unoccupied**.
- Thermostat display is set to “Off” and begins to hold Unrented bands.
- Temperature is maintained between **60° F (15.5° C)** and **85° F (29.4° C)**.

For any room that is checked out the lights will go off when the room is declared **UNOCCUPIED**, which is usually **3 minutes**

Please Note: All values in **RED** are default settings and can be changed based on property preferences.

INNCOM Direct D-1 Thermostat

All-in-one system

both hardware and software

Property wide

both guestrooms and common areas

Property Management System Interface

Occupancy Detection – Guestrooms

Scheduled Energy Savings - Common Areas

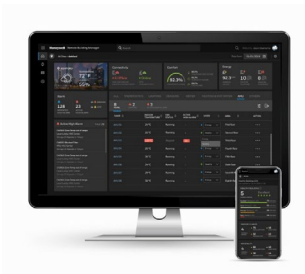
24/7 Remote Support

Network includes annual system “health report”



INNCOM DIRECT COMPONENTS

ALL-IN-ONE SYSTEM: HARDWARE, SOFTWARE, AND CLOUD MONITORING



INNCOM D1 THERMOSTAT

D1 thermostat is the room's hub, with motion sensor and wireless connectivity.

INNCOM D578 EDGE ROUTER

Self-forming mesh network for fast setup and maintenance.

INNCOM IOT GATEWAY

PC based server that connects sensors, IoT modules, and smart devices to the cloud for real-time monitoring and control.

INNCOM DIRECT DASHBOARD

Secure, cloud-based dashboard for easy remote control and mobile alerts of the HVAC system to enable greater energy savings.

INNSITE PROPERTY REPORTS

Energy use and guest-comfort analytics; KPIs tracked by asset, room and site

INNCOM DIRECT ADDITIONAL COMPONENTS

ENHANCED GUEST SATISFACTION – PROPERTY SAVINGS – LIGHTING CONTROL FOR CODE COMPLIANCE – OTHER OPTIONS

				
WIRED & WIRELESS DS and MOTION SENSORS	LOCK INTEGRATION	LOCK REPORTING	MASTER LIGHT CONTROL	ADDITIONAL GUEST AMENITIES
Door signals allow an immediate response as a guest enters the room for HVAC operation. A 2nd motion sensor can be used for occupied and unoccupied logic to ensure guest satisfaction and improve savings.	A wireless interface to the entry door lock is an efficient way to receive the open/close door signal as well as allow the locks to communicate using the INNCOM Deep Mesh Network.	All lock information is available on the server and allows enhanced security and efficiency for a property, ie: credential cancels, wandering cards, room extensions, room changes.....	Many electrical and building codes now require light control to shut off the lights after XX minutes of a room being unoccupied.	Guest convenience and satisfaction can be enhanced with items such as lighting scenes, drape control, smart doorbells, privacy indicators, etc.

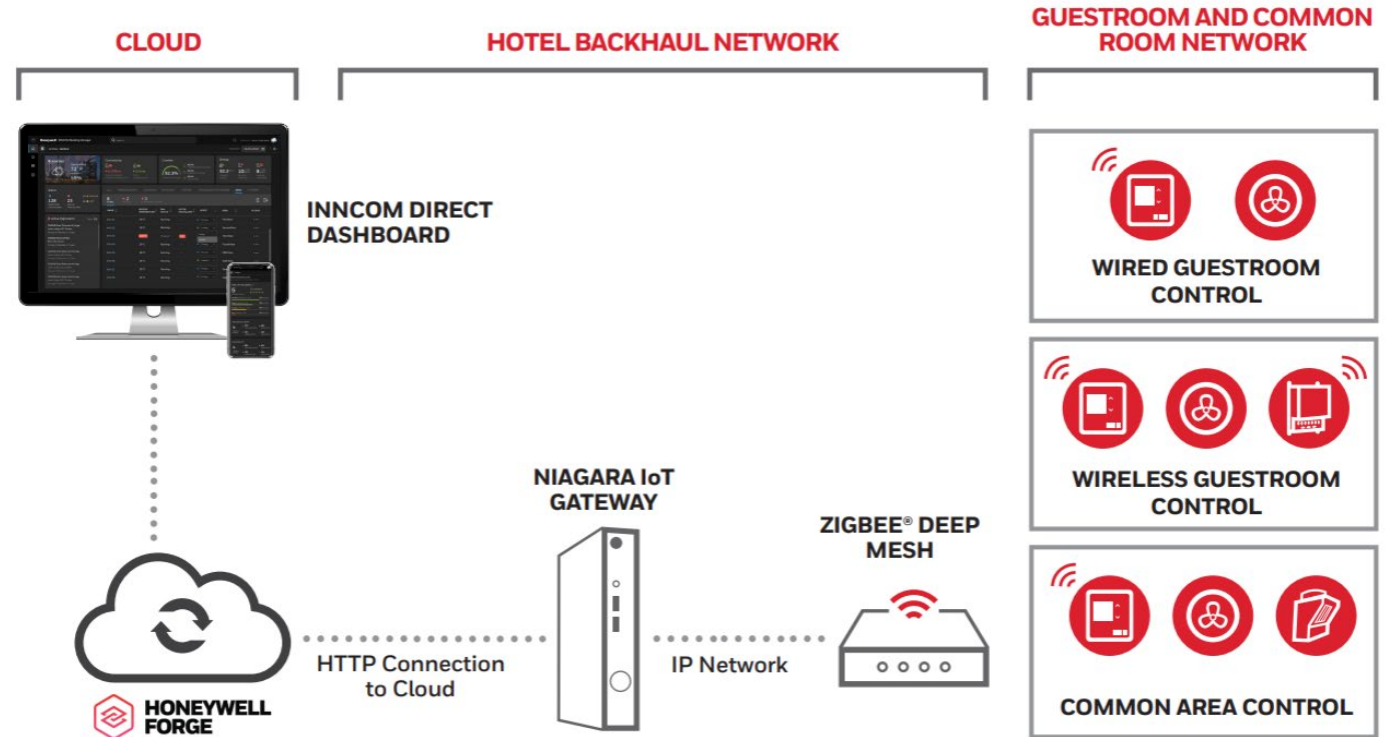
INNCOM DIRECT SYSTEM ARCHITECTURE

INNCOM BUILDING MANAGER DASHBOARD

- HVAC, Occupancy, Temperature, and Humidity Status
- Energy Reports
- Building energy and diagnostic tools
- Occupancy based EMS for guestrooms
- Schedule based EMS for common areas

GUESTROOM AND COMMON AREA DATA

- HVAC, Occupancy (guestroom only), Temperature, and Humidity Status
- Equipment Alarms
- Real-Time Trended Data
- Scheduled Run-Time (common room only)



INNCOM DIRECT DASHBOARD

Secure, cloud-based dashboard for easy remote control and mobile alerts.

REMOTE MONITORING & CONTROL

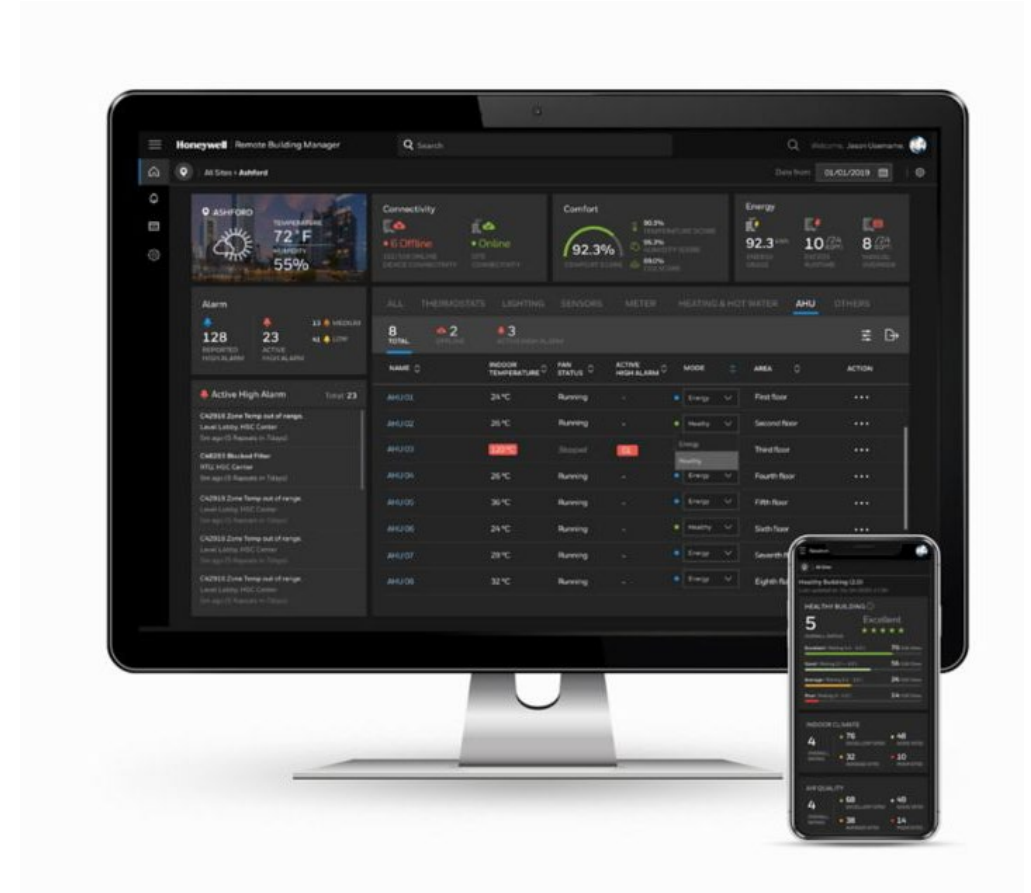
Monitoring and control via our secure gateway

INTUITIVE DASHBOARDS

Visualize real-time details as well as trends about comfort, energy, alarms, and KPIs

POINTS, SCHEDULES, ALARMS

Quickly view and edit schedules, alarms, and setpoints by list, site, zone, or equipment level



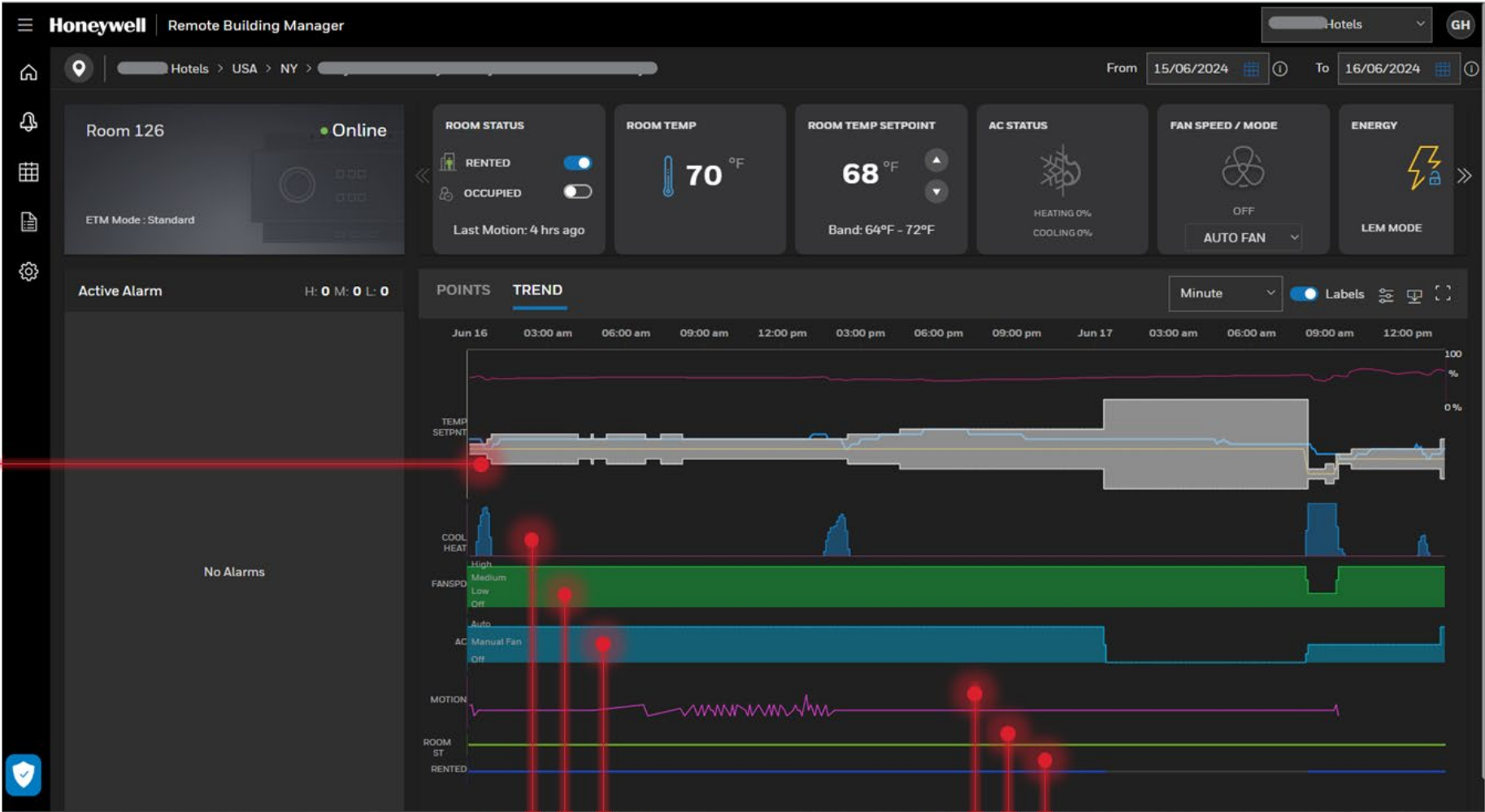
ROOM VIEW | TREND / HISTORY



Facility
Manager



Service
Provider



TEMPERATURE
CONTROL PLOT

HVAC OPERATION

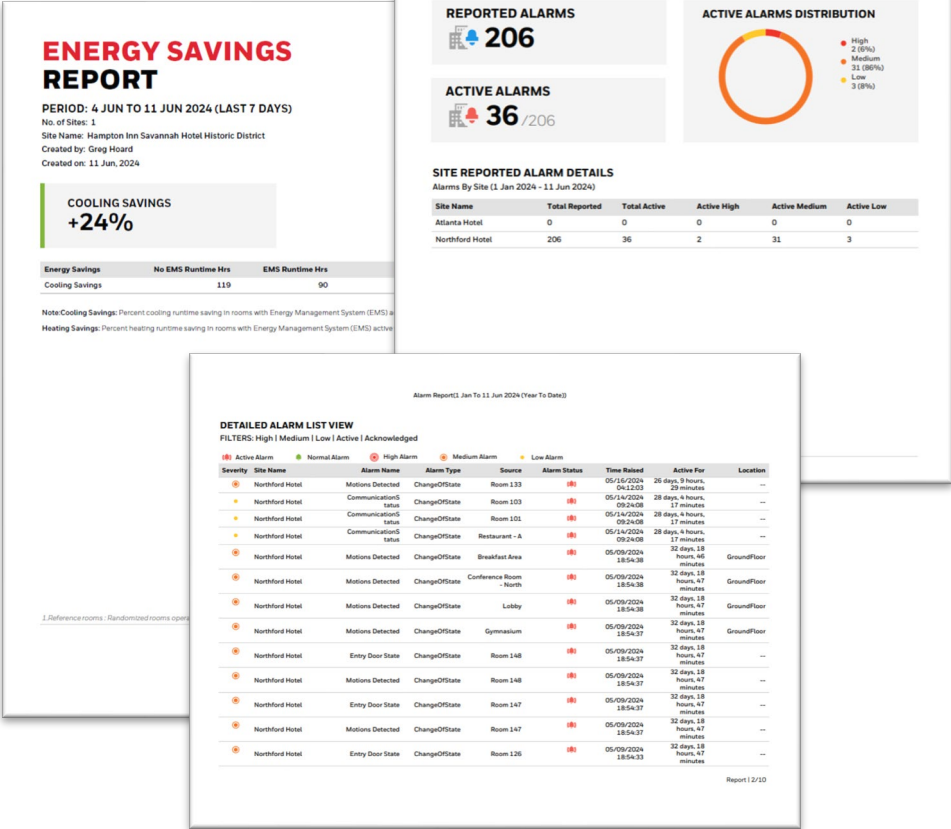
ROOM STATUS DATA

PROPERTY REPORTS

Summary of findings that evaluates the overall performance of the HVAC equipment, occupancy patterns, equipment alarms and energy savings.

Example Metrics

- Rooms with excessive cooling or heating
- Cooling comfort alarms (guest feels too hot, excluding equipment issues)
- Heating comfort alarms (guest feels too cold, excluding equipment issues)
- Rooms with long duration door open issues
- Rooms with high fan activities
- Energy conservation on heating operation



HOW DO WE GET STARTED?

How many guest rooms?

How many HVAC units do we have on the property?

Make and Model of the Guestroom HVAC

- We then internally check to make sure we can control the HVAC

Are there existing thermostats?

- If so, how many wires do you have at the thermostat
- We need a minimum of 5
- We do have wireless (battery powered) options

Always ask for the architectural, electrical and mechanical floor plans

Monica will attach a survey form into the shared drive

GENERIC DRAWINGS

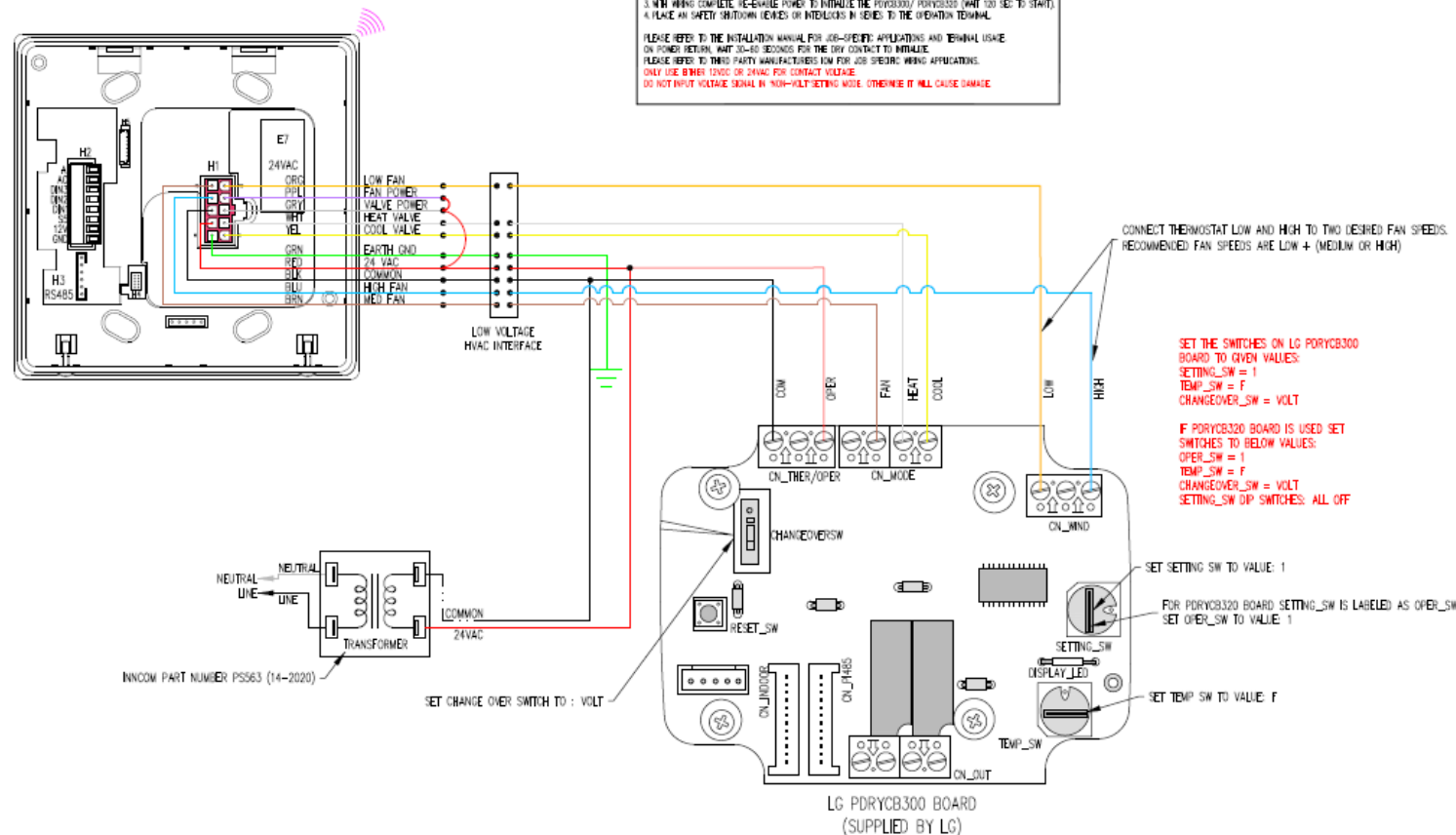
PLEASE REFER TO THE BLOCK DIAGRAMS FOR DEVICE TO DEVICE INTERCONNECTIONS. THIS PAGE PROVIDES DEVICE LEVEL DESCRIPTION OF THE LINE AND LOW VOLTAGE TERMINATIONS.

PLEASE REFER TO ROOM TYPE SPECIFIC CABLE, BLOCK AND LABELS FOR LOAD TERMINATIONS IF ANY.

PLEASE REFER TO ROOM TYPE SPECIFIC LABELS FOR INPUT TERMINATION SPECIFICATIONS FOR THOSE CONNECTED TO THE LOAD CENTER IF ANY.

PLEASE REFER TO ROOM TYPE SPECIFIC BLOCK DIAGRAM FOR ALL OTHER INPUT TERMINATIONS

3 CONDUCTOR (SS)	DATA +12VDC COMMON
2 CONDUCTOR (POWER)	+12VDC COMMON
2 CONDUCTOR (DATA)	DATA COMMON
3 CONDUCTOR (INPUT)	INPUT +12VDC COMMON
4 CONDUCTOR (INPUT)	INPUT COMMON +12VDC COMMON



Honeywell
Hospitality Solutions
12, Newfield Road, North Andover, MA 01845
Tel: 800-333-7777
Fax: 978-875-7337
www.honeywell.com

SAMPLE WIRING
FOR REFERENCE ONLY
REVISION A -- FOR REFERENCE

LG VRV PDRYCB300(320)
WIRING - 24VAC E7
2 FAN SPEED,
HEAT, COOL

PROJECT # USE-301

DESIGN ENG: JAM

CHECKED BY: ---

REVIEWED: ---

DATE: 02 MAY 2024

SHEET: 4 OF 6

**THANK
YOU**

Honeywell