

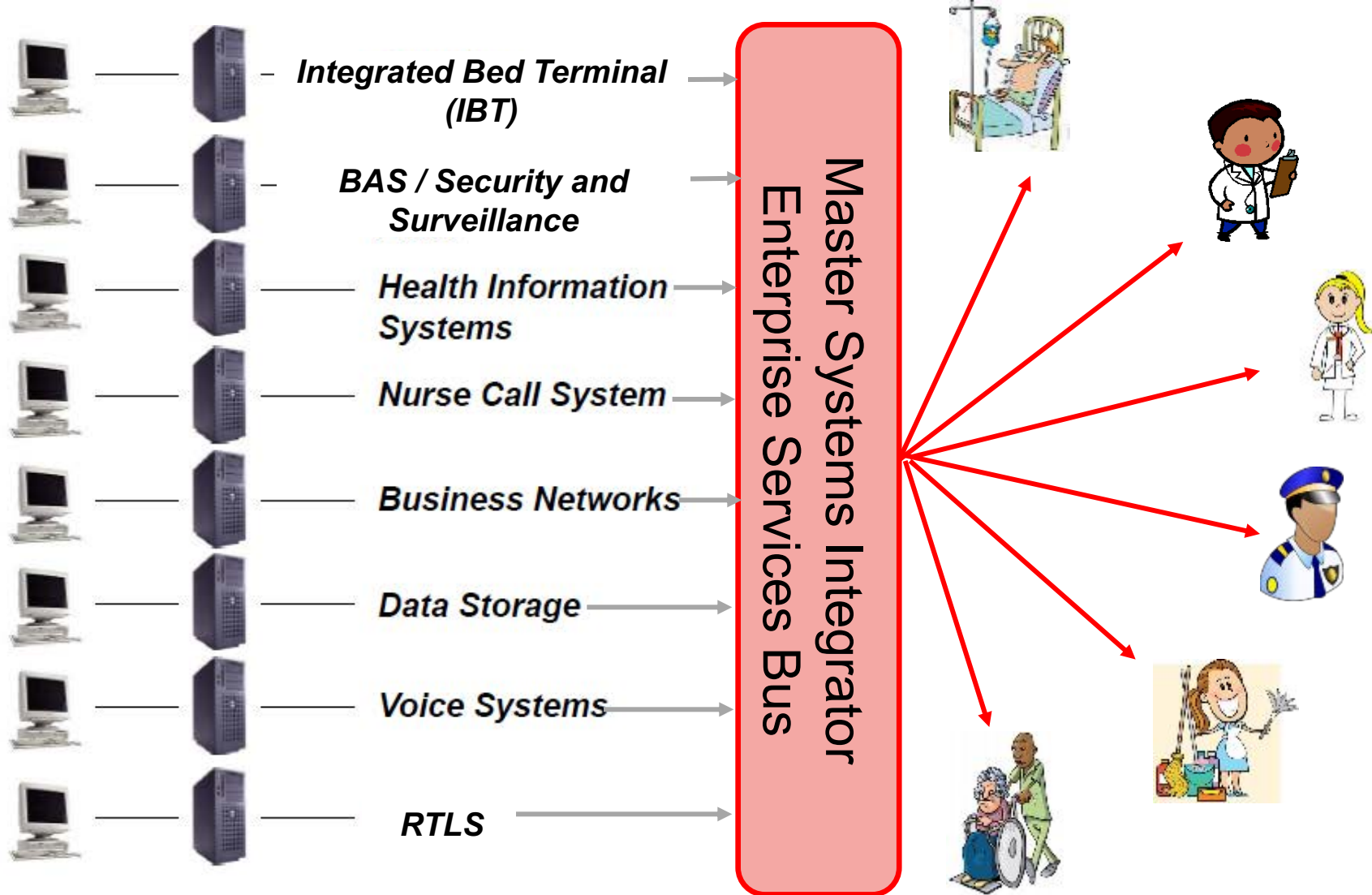


2019 OAHE Conference

## DIGITAL HOSPITAL TECHNOLOGY

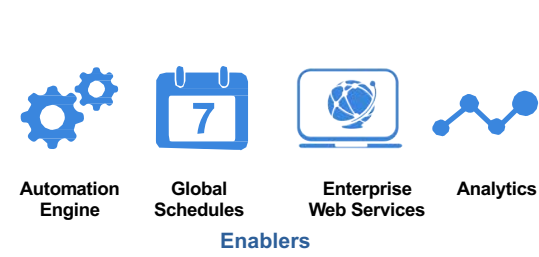
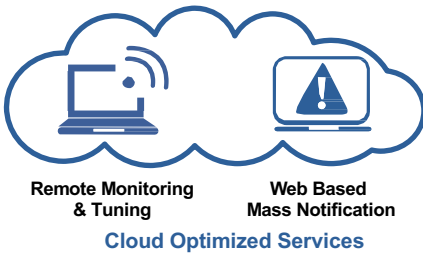
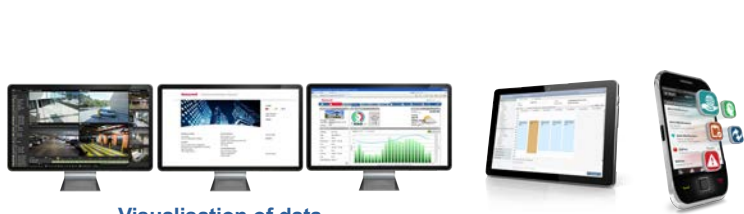
**Honeywell**

# Desired Digital & Connected Hospital



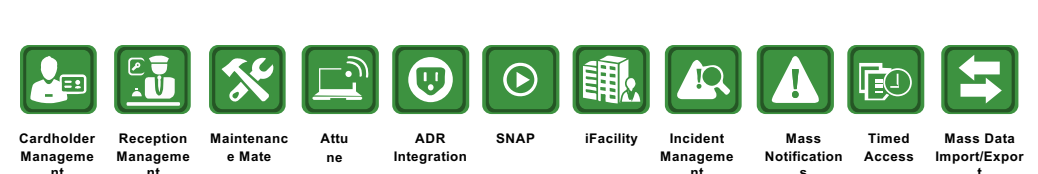
**EBI R500 & Enablers**

Simplify everyday tasks with intelligent automation, cloud services, mobility & other enablers

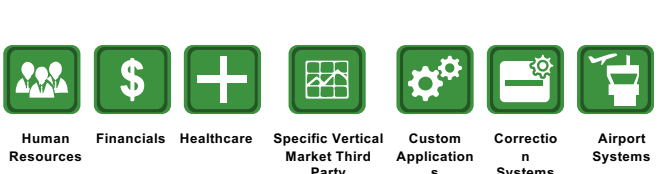


**Application**

Web Services enables easier integration into third party applications and faster development of custom applications



**Third Party Application**

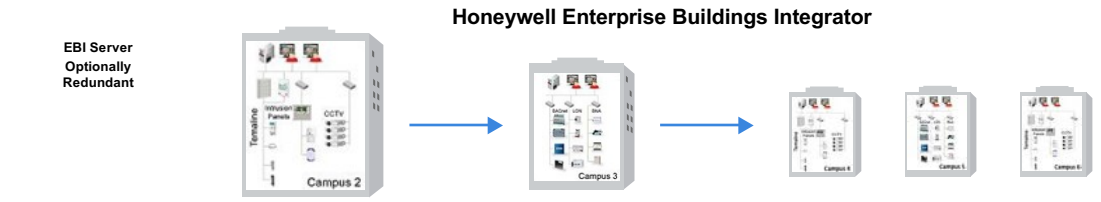


**Services**

Optimizing value of technology

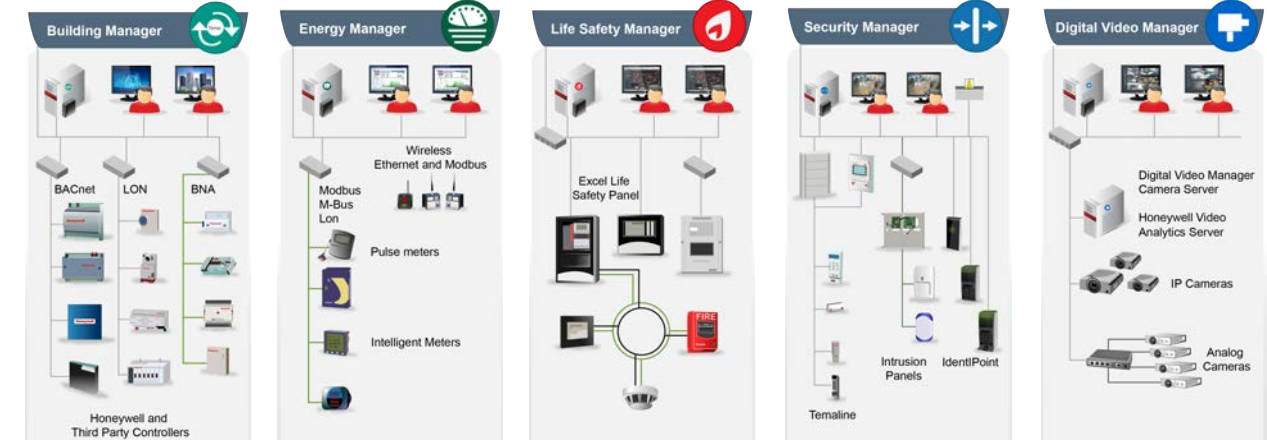


Distributed system architecture promoting scalability and fault tolerance



**Systems**

Open system protocols enabling interoperability and freedom of choice of Honeywell or third-party solutions



**Open System Technologies**



**Network**

Corporate network services IT/LAN/WAN

LAN

WAN



# Healthcare Facilities – Expectations Have Evolved



Operational Effectiveness



Safety & Security



Quality of Care & Patient Satisfaction



Workflow & Business Continuity



Reputation Management



Simplify Facility Management



## COMMAND STATION

MOBILE OPERATIONS  
STANDARD DESKTOP  
CASUAL USE

DESIGNED FOR  
SERVICE TECHNICIANS  
FACILITY OCCUPANTS  
FACILITY MANAGER



## COMMAND CONSOLE

24/7 OPERATIONS  
CONTROL ROOM

DESIGNED FOR  
FACILITY OPERATOR  
SECURITY OPERATOR



## COMMAND WALL

MANAGEMENT OVERVIEW  
TEAM COLLABORATION  
EMERGENCY RESPONSE

DESIGNED FOR  
FIRST RESPONSE TEAM  
OPERATIONS MANAGEMENT  
EMERGENCY PERSONNEL

# Introducing the Command and Control Suite

- Enhance situational awareness on a zoomable map with HVAC, security and more
- Faster response with an intuitive interface to facilitate business continuity
- Simple operation promoting increased productivity, reduced training and greater cross-skilling
- Consistent approach with automated standard operating procedures
- Improved decision making with better communication and collaboration
- Integrated systems for facility-wide overview and automation



# MAP-BASED INTERACTION HELPS SPEED UP RESPONSE

Intuitive map-based navigation to view building management and security systems

Common operating approach promotes increased productivity, reduced training and helps cross-skilling

Progressive object disclosure with zooming and filtering provide enhanced image viewing

The screenshot displays a complex interface for facility management. On the left, a sidebar lists incidents: 'Facility Evacuation ID 257', 'Fire Exit Evacuation ID 256', and 'Equipment Status Check ID 257'. The main area is divided into a 'Workflow' panel on the left and a 'Facility' map on the right. The workflow panel shows a list of tasks: '1. Confirm evacuation decision and scope with EOC Manager...', '2. Make internal staff announcement for evacuation readiness...', '3. Notify associated businesses for evacuation readiness...', and '4. Initiate evacuation sub-workflows...'. The map shows a detailed floor plan of an airport terminal with various zones (ZONE A, ZONE B, ZONE C, ZONE D, ZONE E, ZONE F) and equipment locations. Two pop-up windows are visible: one for '2314 DOOR NOR WEST' showing 'Normal' status (door closed, unlocked) and another for '4567 CAM-NORTH-T2' showing a video feed of a large crowd of people.

Quickly view equipment alarms in their displayed location for rapid response

Watch video and view key equipment data at a touch, or drill down for detail

Access information you need with links to other systems, documents and drawings

# TEMPERATURE DRIFT WITHIN CLINICAL STORAGE



## INTEGRATION OF SYSTEMS FOR FASTER ROOT CAUSE IDENTIFICATION



### OBSERVE:

- Facility Operator observes warning alert as temperature drifts in clinical pharmaceutical storage room
- Operator explores the issue, reviews temperature trends and potential impact
- Initiates SOP workflow

## COLLABORATIVE SOP WORKFLOWS FOR COMPLIANT, TRACEABLE ACTIONS



### INVESTIGATE:

- Service Technician is dispatched to investigate the issue and adjust equipment using Command Station
- Actions are recorded on the SOP Workflow
- Facility Operator collaboratively completes the steps for compliance

## CONTINUOUS IMPROVEMENT WITH EASIER REPORTS ANALYSIS



### RESOLVE:

- System is returned to desired performance level
- Facility Manager reviews the report to check compliance and take precautions so as to continuously improve equipment performance





# HONEYWELL VECTOR OCCUPANT APP

An Exceptional Occupant & Guest Experience

**Honeywell**

THE POWER OF **CONNECTED**

# Honeywell Connected Services Portfolio

Leverages the cloud and building connectivity

Real-time notification of building issues

Connects occupants with buildings

Sensor driven insights about space utilization

## Outcome Based Service

## Honeywell Pulse App

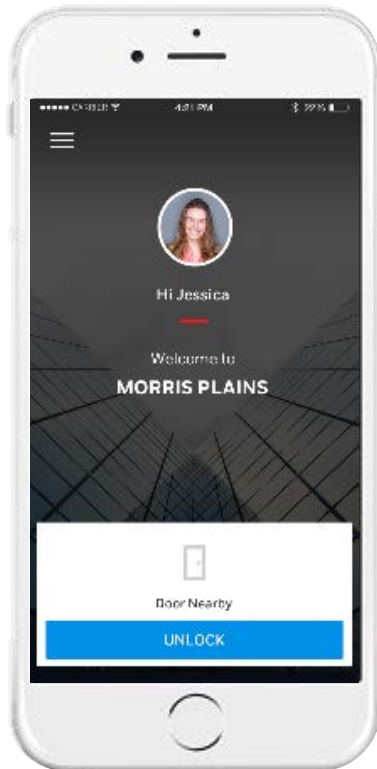
## Honeywell Vector Occupant App

## Vector Space Sense



# Honeywell Vector Occupant App

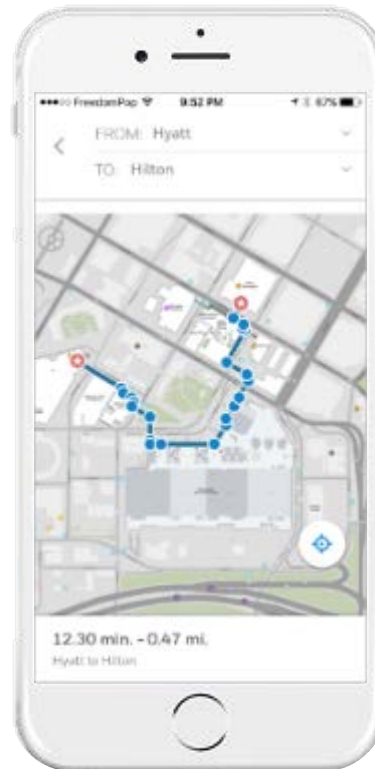
## Door Access



**Vs.**

Expensive, easy-to-lose cards w/ short read range & complex cardholder management

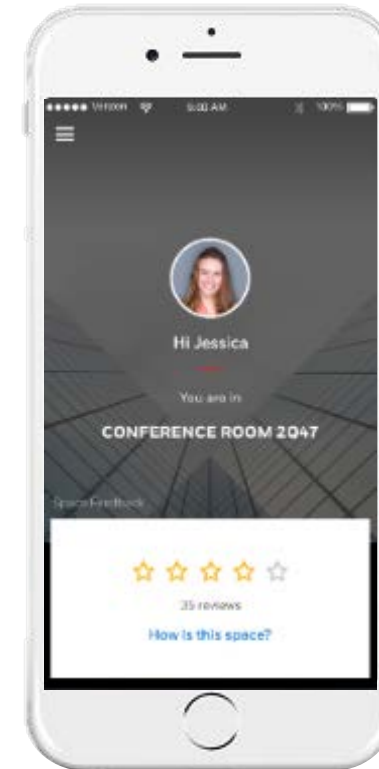
## Indoor Wayfinding



**Vs.**

Asking for directions, signage costs, and no data on traffic patterns

## Space Rating

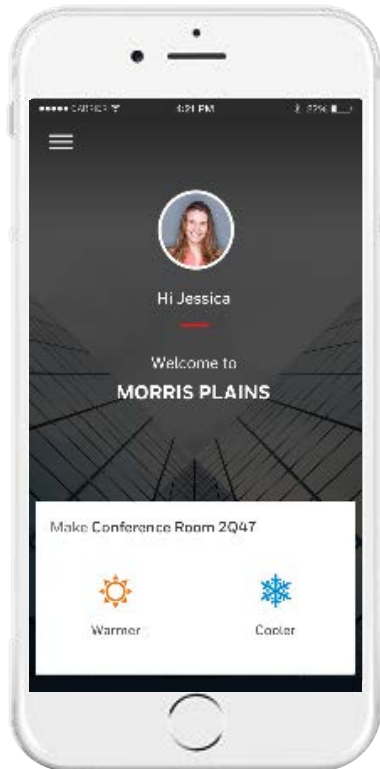


**Vs.**

Email, paper, online surveys, with time-consuming data consolidation

# Honeywell Vector Occupant App

## Comfort Requests



**Vs.**

Call/email hot & cold requests, difficult to identify location-specific trends

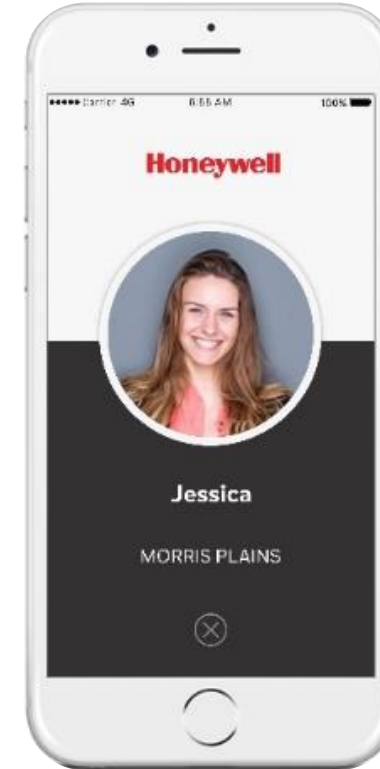
## Message Board



**Vs.**

Physical message boards, missed announcements, inefficiency & cost of paper notices

## Digital Photo ID



**Vs.**

Cost and inconvenience of easy-to-lose photo ID badges

[WATCH DEMO](#)

# How Access Control Works

## Manual Unlock



## Gesture-based Unlock



## Proximity-based Unlock



## Eco-mode Unlock



\* Reader can be configured for a read range of a few inches up to several feet.

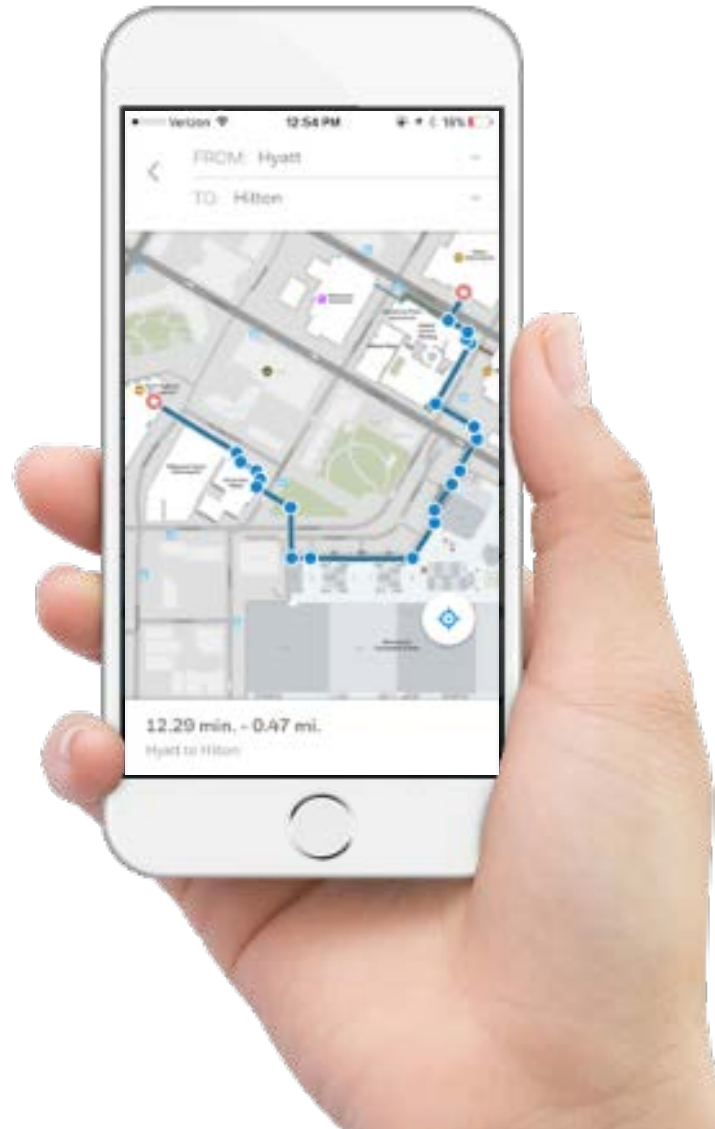
# How Indoor Navigation Works

## Locate Points of Interest

- Blue dot to show occupant current location
- Predictive search box
- Drop-down of recorded POIs

## Navigate to POI

- Highlighted path to POI with route guide
- Distance and estimated time to destination
- Voice-based turn-by-turn instructions
- Moving blue dot with arrow indicating movement towards POI
- Path recalculated if occupant moves in wrong direction



## Save & Share Locations

- Save any location on map as favorite
- Share own location or any other location on map with friend(s) via messaging, email, WhatsApp
- Friend(s) receive link to open map on their own device with path to the shared location

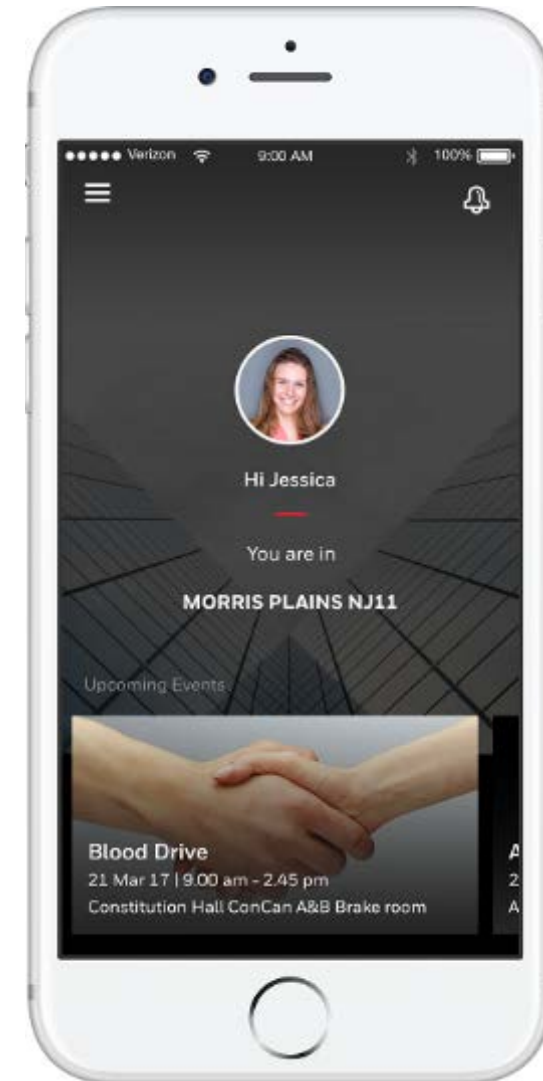
# How Mobile Message Board Works

## Admin Actions

- Select a message card from available pool in admin portal
- Set card category, title and image
- Insert more information, URLs etc.
- Publish card
- Delete card after it has served purpose

## Recipient Actions

- Opens app on phone, or keeps app running in background
- Newly published card pops-up
- Clicks 'Next' to read more details on sub-cards
- Clicks URL (if available) to open another website with more information
- Performs expected actions e.g. register for and event, send email, etc.
- Card disappears when deleted by admin



## Reduce patient waiting time

The Wayfinding feature helps patients find consultation rooms faster – increasing hospital staff productivity and improving patient experience. For faster admission processes, a QR code can be generated.



## Improve staff productivity to reduce staff to patient ratio

Help patients and new staff navigate throughout the facility and always be on time. Wayfinding improves staff productivity and the Too hot or too cold feature reduces patient alarms around temperature adjustments.



## Cut back on energy consumption

Use occupancy analytics to efficiently handle HVAC and lighting outputs, when the occupancy level is low.



## Bring down performance penalties

Timeliness improvements related to appointments and scheduling, reduces patient waiting lists and resulting patient care performance penalty exposure



## Decrease cancelled operations

Patients, doctors and staff are sure to get around the facility faster – reaching appointments on time and improving productivity.



## Optimize patient experience

Honeywell Vector Occupant App helps maximize staff productivity, thus increasing employee satisfaction and sense of achievement - while delivering more patient care activities.



## Lower cost per patient

Enable overall staff productivity by reducing energy consumption and maintenance costs.

# Honeywell

THE POWER OF **CONNECTED**

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For more information, please visit [www.buildingsolutions.honeywell.com](http://www.buildingsolutions.honeywell.com)



# Questions?