



# The next generation of intelligent patient rooms has arrived.

How low-voltage integration through a digital footwall boosts patient satisfaction, enhances clinical workflows, and lowers recurring costs.

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Life Is On

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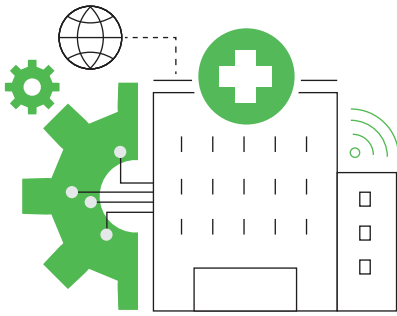


A patient room worthy of  
the people inside it



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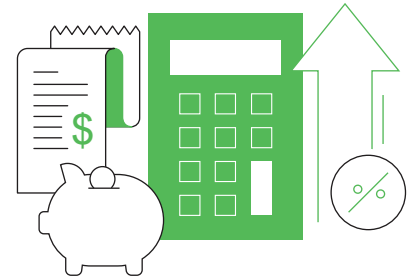
Today's patients have growing expectations when it comes to technology.



According to an Accenture survey, 75 percent of respondents feel **technology is important to managing health.**<sup>1</sup>



At the same time, hospitals are facing pressure to **increase patient satisfaction and comfort while lowering costs.**



Fortunately, there's a way for hospitals to offer digital connectivity to patients while achieving better safety and cost efficiency: **the intelligent patient room.**

## What is the intelligent patient room?

At its core, the intelligent patient room uses digital technologies to put the patient's needs first.

It does this by integrating all the low-voltage (LV) equipment in the room — building systems, medical equipment, nurse call systems, and so on — under a digital “**system of systems.**”

### The result of all this integration:



Greater patient satisfaction



Clearer communication and hand-offs for providers



Enhanced efficiency across LV systems.

More integration also minimizes costs when done correctly. With LV integration, you avoid buying, learning, and maintaining systems from multiple vendors that don't talk to one another. In financial terms, that means you don't need to procure separate systems with millions in annual software-as-a-service fees.<sup>2</sup> Instead, our model for LV integration designs connectivity into the system from the start. The result: **lower costs, more simplicity, and greater patient satisfaction.**

<sup>1</sup> “Accenture 2018 Consumer Survey on Health,” Accenture, 2018.

<sup>2</sup> Based on internal data, we've found that SaaS annual fees can amount to about \$1.3 million for 400 – 500-bed hospitals.



# Putting the patient's needs first with a digital footwall experience

Until now, the key low-voltage systems that support a patient room have been stuck in silos.

Once integrated, all key LV systems converge in the digital footwall, a screen that creates a single reference point for patients, families, and providers. Patients can view important care information, access entertainment, and set environmental conditions. The system also feeds key information for providers into a separate digitized patient door display, thus removing impromptu magnet and sticky note systems.

## Integrating low voltage systems for better efficiency and patient comfort

The home screen of a fictional hospital's digital footwall

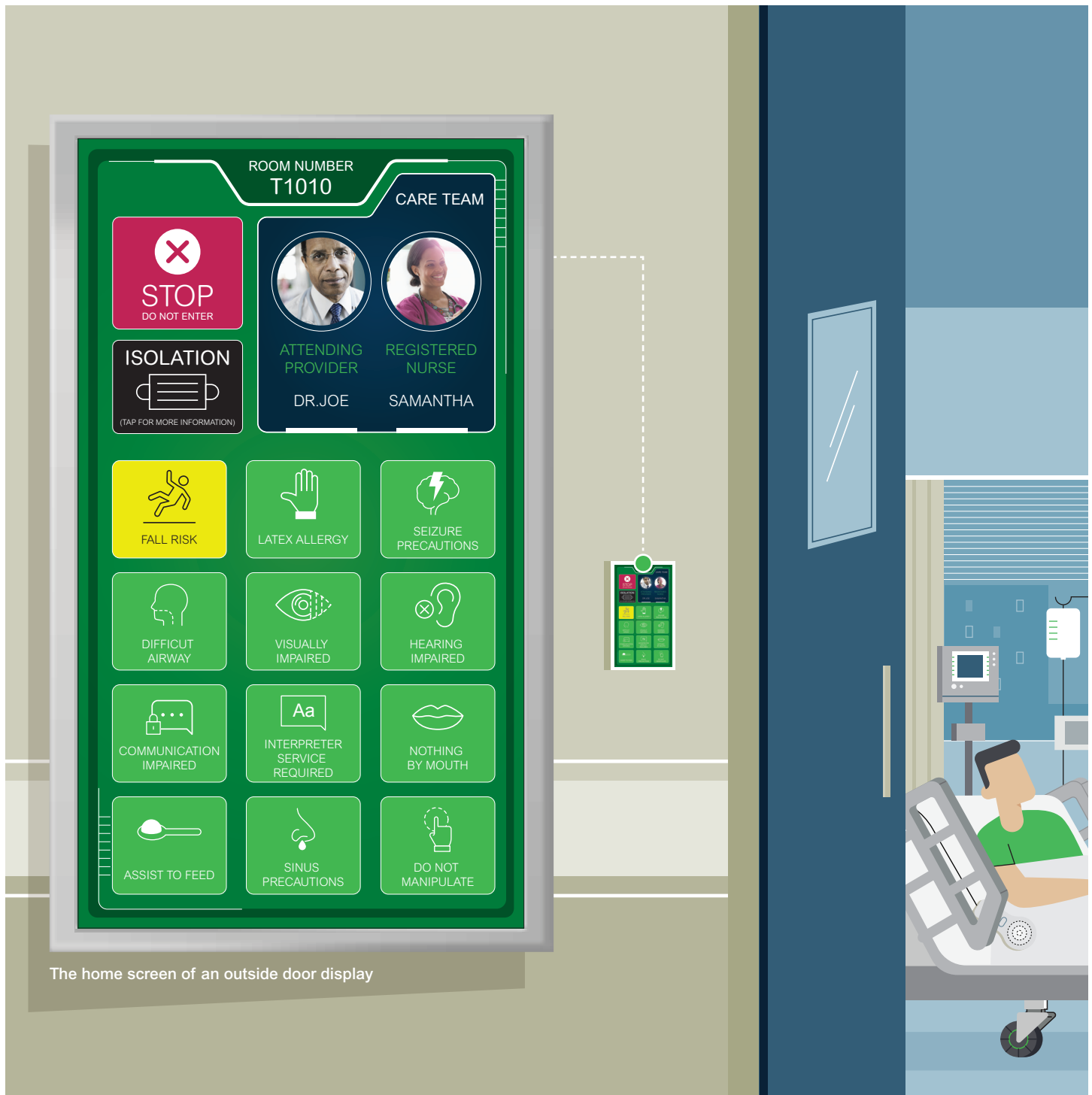
With this solution, you can integrate the following components:

- 1 Nurse call system with pillow speaker
- 2 Digital whiteboard
- 3 Patient entertainment
- 4 Patient and clinical data from electronic medical records
- 5 Room control (lighting, shade, temperature, privacy glass)
- 6 Audiovisual systems (monitors, microphones, cameras, and speakers)
- 7 IT equipment (computers, bedside smart tablets, etc.)
- 8 Occupancy tracking (for energy savings)
- 9 Staff tracking for clinical workflows
- 10 Clinician remote monitoring

# Keep clinicians in the know

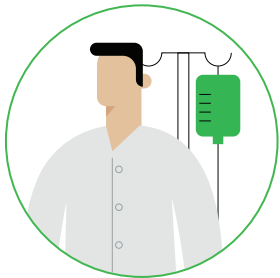
## Boost accuracy and efficiency with clear communication with digital door displays

The digital door display complements the footwall and provides key information for clinical staff. Put an end to improvisational, error-prone magnet and sticky note systems with an integrated, highly legible screen.



The home screen of an outside door display

# Benefits for patients, providers, and administrators



## Key benefits for patients

- Empower patients to set their own temperature, lighting, window shade, and privacy preferences via automated technology
- Keep patients informed of their next steps, goals for the day, upcoming consults, events, release dates, and on-call nurse and provider teams
- Minimize falls by giving patients the ability to control room settings from the bed
- Offer integrated platform for television entertainment, gaming console inputs, weather, patient education videos, and more
- Deliver advertising info on local resources and attractions coupled with wayfinding for patients and their families



## Key benefits for clinicians

- Minimize nurse calls by empowering patients to control their own environment, thereby freeing up providers to focus on delivering care
- Enhance clinical workflows by integrating information sharing across siloed systems
- Elevate efficiency and accuracy of patient care with clear communication on treatments and medications
- Deliver at-a-glance information on door displays to staff before they enter the room, including standard precautions (fall risks, allergies) and other information (hearing impairment, required interpreter services)
- Display pertinent medical information on the footwall screen (MRIs, test results, x-rays) from electronic medical record system
- Gain ability to display portable medical devices via auxiliary HDMI inputs
- Eliminate multiple monitors in a patient room by displaying all critical information on a single screen (e.g., Code Blue alerts)
- Enable remote audiovisual monitoring of patients



## Key benefits for hospital administrators

- Increase patient comfort, satisfaction, and, ultimately, HCAHPS scores
- Unite the many departments that service a patient room (e.g., facilities, clinical maintenance, information services, network support, and audiovisual) with a centralized management system
- Avoid duplicating equipment purchases and save space by integrating components of multiple systems (e.g., monitors, cameras, microphones)
- Simplify maintenance and repairs with one point of contact for all low-voltage systems
- Comply with regulations such as HIPAA
- Elevate cyber security with a company that understands IoT and the impact of building-connected devices
- Perform remote diagnostics and troubleshooting without entering patient room

# The intelligent patient room's digital backbone

EcoStruxure™ Building makes all this low-voltage integration possible.

EcoStruxure Building is an open, cyber-secure, IoT-connected solution that connects your IT to your operational technology (OT). In other words, it's a system of devices, equipment, software, services, and analytics that allow all your low-voltage equipment to speak the same digital language. Once connected, the data from these disparate systems can be used to create actionable insights.

EcoStruxure integrates with digital footwalls to give patients control over their room's environmental conditions. It also integrates with other low- and medium-voltage systems, regardless of whether they are Schneider Electric™ products.

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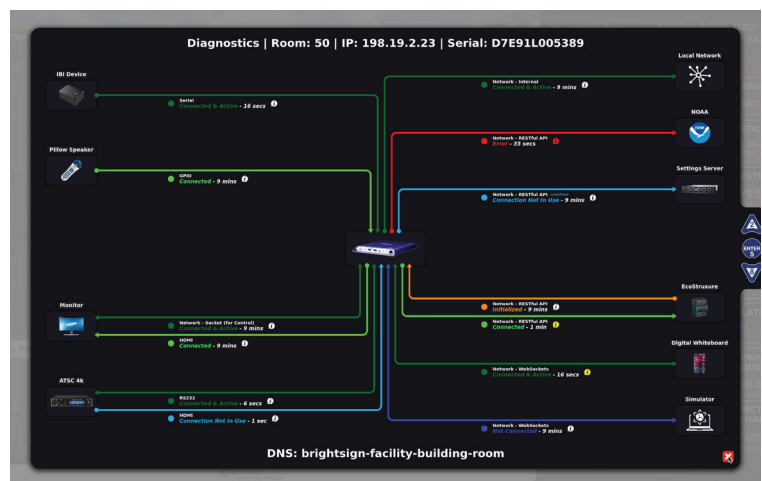
*A building management system is no longer a commodity. It's the necessary foundation for silo-busting, value-creating, low-voltage integration.*

”

## Faster issue diagnosis

Using EcoStruxure Building, your teams can act quickly and decisively. Imagine a window blind won't open. The blind is connected to numerous systems, and any one of them could be the culprit.

Using diagnostics tools such as the one pictured here, your staff is clued into where the fault originates. From there, the correct person can be dispatched to fix the problem. The result: **faster time to repair and fewer labor hours.**



This diagnostics visualization helps your staff quickly identify and correct any issues with your low-voltage systems. These diagnostics are powered by EcoStruxure Building Operation.

# A single vendor with deep domain expertise

Schneider's vision for an intelligent patient room built on LV integration emerged out of our multi-disciplinary perspective.

Based on our decades of domain expertise in building management, IT, and power distribution, we're uniquely able to envision how all the LV systems in your hospital fit together.

Over the years, our work with some of the country's leading hospitals has given us a deep understanding of clinical needs and workflows. By finding solutions for integrating IT and OT, we've developed a successful, replicable approach for aligning IT, clinical, and facilities needs.

Our expertise spans designing, engineering, building, and operating intelligent patient rooms, and by extension, intelligent hospitals. Here's how we build solutions around the specific needs of each hospital:

- Investigate new technology
- Educate stakeholders on what is possible for their site
- Eliminate design and contracting silos to create financial savings
- Verify that third-party vendors truly deliver products as promised
- Test complete solution to eliminate technical conflicts
- Plan, design, and build with future-ready technology in mind
- Share knowledge and co-develop with the Healthcare Information Service organization

We believe in innovation through integration. By uniting previously siloed systems under a single integrated meta-system, we help you unlock more visibility, control, and efficiency.



## Evidence-based medicine deserves evidence-based technology use cases.



Discover how we helped PennMed's new hospital, featuring intelligent patient rooms with digital footwalls.

Watch how

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