GOZIO Health

Ultimate Guide to Wayfinding for Healthcare

Solving Real Patient Navigation Challenges with the Right Digital Strategy

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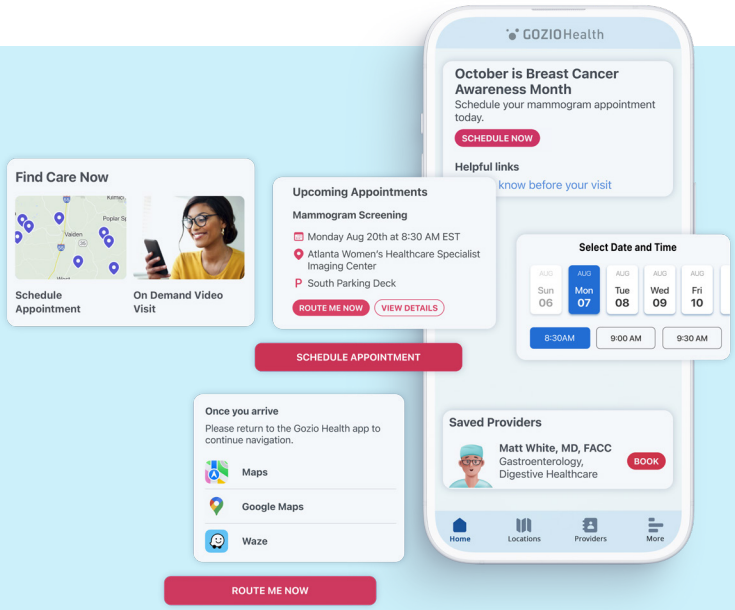
Introduction

Wayfinding in healthcare is more than a convenience; it's essential. Poor signage and unclear navigation burden patients and staff alike, leading to stress, late or missed appointments, and costly inefficiencies. In fact, inefficient navigation can cost hospitals hundreds of thousands of dollars annually.

So, what does a good digital wayfinding and indoor positioning solution for healthcare look like? The best healthcare wayfinding requires a focus on quality, accuracy, and scalability. These are impacted both by techniques and technology and the ways in which the unique aspects of a hospital impact those techniques and technologies.



Why do hospitals need indoor positioning?

Today's patients expect the same seamless, GPS-like navigation indoors as they get driving to the hospital. However, GPS alone doesn't work well inside complex healthcare environments. That's where indoor positioning systems (IPS) come in.

77% of patients say digital wayfinding improves their overall healthcare experience.

GPS gets much of the credit, but one drawback to GPS is that it leverages satellites, which are in space. Without a clear line of sight to the sky, GPS accuracy drops quickly. So, it's great for getting from point A to point B outdoors, but less great at location awareness inside large, complex facilities.

An indoor positioning system (IPS) gives additional context and creates a mapping between the physical and the digital, unlocking unique opportunities for interaction between the two.

Indoor positioning provides many opportunities and benefits beyond getting from one place to another, including:

1. **Contextual Content:** Location awareness creates the opportunity to personalize the experience.
2. **Targeted Communication:** Communication can be segmented based on when and where someone is in real time.
3. **Automated Experiences:** The physical to digital link can trigger flows, streamlining experiences like check-in.
4. **Accessibility:** Location-aware applications can help users discover and better leverage assistive tools
5. **Intelligence:** Knowing how users navigate and congregate within a location can give compelling and actionable analytics.

Why is indoor positioning in hospitals so challenging?

Doing indoor positioning well requires understanding both the techniques and the technology.

Successful IPS involves navigating some unique challenges that can cause many solutions to falter. Here's why implementing IPS in healthcare isn't as simple as placing signs or using off-the-shelf tech:

Physical Interference: Thick walls, medical equipment, and large crowds disrupt signals.

Electronic Noise: Facilities are home to different pieces of equipment putting out all kinds of different energy. This can cause tools as simple as a compass to become unreliable. Like physical interference, this can limit the signal technologies and sensors that can be effectively used to determine location.

Hospitals Are Complex: Hospital buildings have a lot going on. They're multilevel. Hallways are unnamed and often lack distinguishable characteristics. Buildings can connect in strange ways. A deep level of understanding is needed about the structure of the facility to properly locate a device in an actionable way.

High Accuracy Needed: Indoor location calculations need to be very accurate to be useful. If GPS misses by 20 feet, the location is still likely on the same street. When indoors, the location calculated might be in a totally different room or hallway if it is off by that much.

User Context: When you're driving to a destination, your wayfinding app isn't very concerned with why you're going there. In hospitals, you're either seeking care, visiting or accompanying a patient, or helping to operate the facility. Knowing why someone is there is key to knowing how they should best move around a building.

Why Bluetooth is the most effective solution for indoor positioning

Bluetooth sits in a space within the ultra-high frequency (UHF) band of the radio frequency (RF) portion of the electromagnetic (EM) spectrum, between 2.402 GHz to 2.48 GHz. Being on the higher end of radio frequency, Bluetooth delivers a nice data transmission rate, but a limited range.

A cousin to Bluetooth, Bluetooth Low Energy (BLE), manages to provide a similar experience while greatly reducing the energy cost. This means you can build a slim-profiled, BLE-enabled device with enough power to last for years. This is ideal for "always on" devices like beacons. BLE is very well-proliferated. Effectively, every mobile device built in the past 10 years supports it.

BLE is the most accurate and reliable solution widely available today.

One very useful aspect of this technology with particular relevance to wayfinding is a BLE beacon. Beacons are simply small devices that broadcast a signal. While there are other types of beacons, here is why BLE is the preferred choice:

BLE beacons

- **Universally supported by mobile devices**
- **Affordable, long-lasting (battery life spans years)**
- **Easy to install—no power or network cabling needed**
- **Reliable signal strength, even in busy environments**
- **No maintenance or recalibration required**

Using BLE "fingerprinting," each beacon creates a unique digital map of a hospital space, enabling hyper-accurate blue dot navigation and real-time indoor routing.

What to look for in a wayfinding vendor

As more health systems consider mobile wayfinding, it's critical to choose a partner that understands healthcare. Here's what to prioritize:

1. **Turnkey Deployment:** Look for a vendor that handles everything—hardware, software, maintenance, and updates.
2. **True Indoor Accuracy:** Avoid solutions that require users to enter their location manually or settle for 70% accuracy.
3. **Flexible Journey Mapping:** Support for complex, multi-step patient journeys, like check-in, lab work, and imaging.
4. **Future-Ready Integration:** Choose a platform that can evolve into a full digital front door with EHR, scheduling, and bill pay.
5. **Dynamic Content Management:** Easily manage and update data across locations without duplicating effort.

While these five things are important, there is certainly more to consider when looking at experiential wayfinding for a health system.

Must-have features in a wayfinding solution

For the most accurate and high-quality wayfinding and indoor positioning solution for a healthcare organization, there are many critical features. Following are the must-have features and tools.

- **Network Map**
- **Network Search**
- **Outdoor Navigation Options**
- **Switch from Outdoor to Indoor**
- **Save Parking Spot**
- **Blue Dot Accuracy**
- **Blue Dot Navigation**
- **Floor-Level Accuracy**
- **Building Transitions**
- **Third-Party Integration**
- **Location Detail Quality**
- **Alerts on Arrival**
- **Offline Navigation**
- **Off Route/ Reroute**
- **Wrong Way Detection**
- **3D Maps**
- **Campus Navigation**
- **Accessibility Adherence**

Real-World Results

Hospitals using robust wayfinding solutions see measurable results.

Take University of Tennessee Medical Center, for example. With a 2.5M square foot campus and complex facilities, they implemented UTMC Way, a Gozio-powered app. The result?

61% of users returned to the app 3+ times—a clear sign of value and ongoing engagement. "We can now offer turn-by-turn directions from the parking lot to the exact appointment location," said Michael Saad, CIO at UTMC.

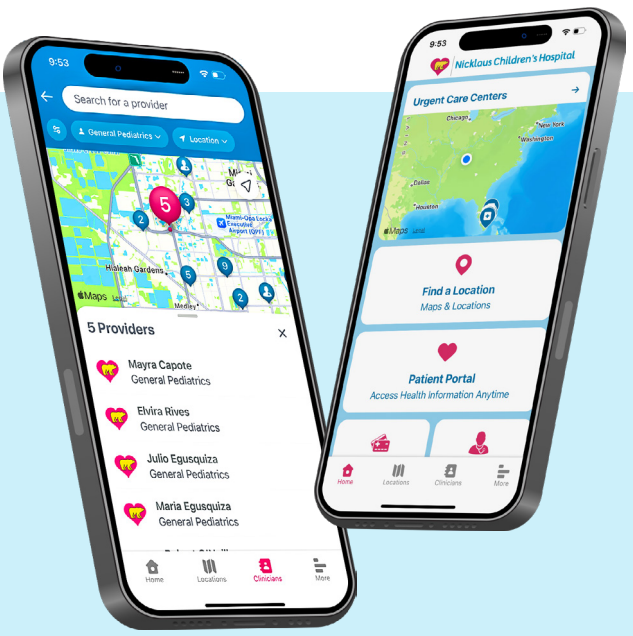
Downloadables

On-Site Checklist

Ensure your wayfinding solution performs where it matters most: in your facility. This checklist helps validate real-world functionality, from signal strength to patient journey mapping.
[Download now]

Wayfinding RFP Template

Use this AHA-endorsed template to evaluate vendors, define requirements, and secure buy-in for your investment. Includes questions on core features, platform architecture, support, and cost structure.
[Download now]



About Gozio Heath

Gozio Health partners with health systems to increase consumer engagement using a proven mobile platform and strategy. The entire healthcare journey–both in-person and digital–is improved by giving systems the flexibility to consolidate all their patient-facing digital solutions into one premium native mobile experience accessible by anyone, anywhere. Combined with Gozio's patented indoor positioning technology, the platform empowers consumers to confidently navigate their healthcare journey and enables health systems to more effectively achieve their business goals. Gozio customers surveyed in a 2021 KLAS Research Emerging Technology Spotlight report found 100% satisfaction.

Request a demo and see Gozio in action: www.goziohealth.com