



Large East Coast Hospital



Location

Massachusetts



Solution

Workflow Automation

Case Study

Creating greater efficiency with indoor positioning technology

Medical Center improves patient transport time 17% with NavvTrack®

The Challenge

At a large acute care hospital in Massachusetts, mobile workflows for support services were already in place; however, the organization believed it could do a better job of meeting the needs of patients and staff. A strategic decision was made to implement innovative, accurate indoor positioning technology to help support and improve workflows while boosting staff safety and accountability. The organization initially focused on patient transport, messenger services, and environmental services (EVS) to reap the highest rewards.

Focusing on Low-hanging Fruit

The support teams for patient transport and environmental services were using unreliable, wasteful and inefficient paging systems that required multiple interactions with pagers, house phones and printed paper requests—and dispatchers never knew where their team members were. COVID was also driving staff shortages and increasing turnover. With limited budget, the organization turned to NavvTrack's indoor positioning technology for more efficient ways to locate teams and assign tasks based on location. Here's what the hospital wanted to accomplish:

- Use shared iOS devices, information from the EHR and apps like Rover and Transport mobile in novel and creative ways to provide transparency.
- Find the best person for the job by understanding the status, location and proximity to the required transport or environmental services task.
- Push real-time location updates via app from mobile devices to a centralized "command center."
- Eliminate frustration for employees who made fruitless trips back and forth across the hospital.
- Improve efficiency and accountability by promoting better communication between team members, while improving real-time visualization of task status and job completion.

Boosting Efficiency Using NavvTrack Location Services

	Pre-NavvTrack	Post NavvTrack
	July-Sept 2020	Nov 2021-Jan 2022
Average assigned to acknowledged (minutes)	2	1.4
Average acknowledged to in-progress (minutes)	3	3.3
Average in-progress to completed (minutes)	10	17% reduction
Average total job time (minutes)	15	13% reduction

Rapid Setup for Rapid Rewards

The organization used its existing WiFi and hospital-issued smartphones to deploy the NavvTrack indoor positioning system. Mobile team member locations can be seen on a detailed digital twin of the facility (3D map base), and locations are updated in real-time and used to locate and direct team members.

- Easy deployment: No additional hardware or infrastructure was needed, and quality maps provide the building blocks to having a “command center” view of what’s going on.
- Existing infrastructure enhancements: Utilized existing WiFi and a shared fleet of iOS devices, and leveraged tools already in use (mobile devices, EMR, and mobile apps). Digital maps give an innovative view of team operations, logistics, and workflow.
- Efficiency improvements: Moved away from assigning tasks in a simple queue, and teams now use status, location, and proximity to assign the best person to the job, allowing individuals to walk less, but accomplish more within a given shift.

People, Process and Programming Came Together for Increased Efficiency

Dispatchers, managers and staff now have much smoother communication because everyone’s location and status is visible,

“The platform significantly helps us improve efficiencies in transporting patients now by pinpointing the exact location of our transporters and patient escorts.”

-Executive Director,
Support Operations

while other teams can see the status as well, enabling better inter-service coordination.

Process improvements start with employees checking in or checking out location-enabled smartphones. Task assignments are sent directly to individuals via their mobile device, eliminating pagers, while location and proximity of the entire team is visible.

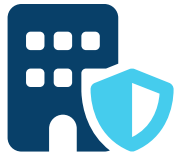
Behind the scenes, a location aware app on mobile phones streams each person’s location to the central command center console.

The Results Speak for Themselves



Reduced Downtime

Downtime and excess travel time were reduced as dispatchers used the indoor location mapping platform with other tools such as Epic's Rover to streamline communication and assign tasks based on location and status of job.



Better Safety and Accountability

Dispatchers and managers use indoor positioning to monitor for staff safety and accountability if transporters and housekeepers are in a location for too long due to hold ups, unsafe situations or inability to verify their whereabouts to others.



Staff Optimization

Even with limited staff resources, patient transport and delivery numbers increased. The hospital reduced patient transport time by 17% – with 10% fewer patient transporters.



Improved Response Times

Response times for transporters, housekeepers and equipment improved with real-time location services and the ability to quickly communicate better information for the task at hand. The organization decreased the amount of time to process patient transport requests by 13%.

Overall, the new NavvTrack indoor positioning system has helped the hospital do more with a limited budget by improving efficiency, and patient and staff satisfaction levels.

About Navv Systems

Navv Systems, Inc. (NSI) is an Ann Arbor, Michigan-based enterprise software and solutions company that uses indoor positioning technology (IPS) to provide indoor care traffic control for hospitals, health systems, and other large, complex healthcare organizations. For more information, please visit www.navv-systems.com.