

# Case Study: Integrated Systems — The Whole is Greater Than the Sum of the Parts



LIBERTY  
Senior Living

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## Categories:

- ◆ Improving Staff Efficiencies
- ◆ Improving Quality of Life/Satisfaction with Care

### About the Organization

#### Organization Name:

Liberty Senior Living

#### Main Contributor:

Joseph Hooks, Operations  
Training and Support Associate

#### Organization Type:

Continuing Care Retirement  
Communities (CCRC)

#### Other Partners:

RCare and Nxtgen Care

#### Organization Description:

Liberty Senior Living operates senior living communities across the southeast region of the United States. Each Liberty community focuses on the health and wellness of the whole person, intentionally cultivated and enhanced through an independent lifestyle. Each community also prioritizes opportunities for residents to thrive socially, emotionally, intellectually, spiritually, occupationally, and environmentally.

## Project Description

Our goal was to improve quality of life/satisfaction with care for our residents, by measuring and improving the quality of human connections between residents and between residents and staff. We approached two manufacturers to request that they consider integrating their systems to help us achieve this goal. They saw the benefits and agreed. The result is a single system that is greater than the sum of its parts. At the start of the pandemic, the companies joined forces again, modifying their systems to simplify contact tracing and infection control.

## Functional Assessment and Activity Monitoring System Type from the Assessed Patient/Resident/Client/User's Perspective

Wearable

## Functional Assessment and Activity Monitoring Single/Multi-user Type

Multi-user with Capacity to Distinguish Users

## Business Model

Private Health/Long-term Care Insurance Coverage, Private Pay

## Implementation Approach

We use RCare's nurse call systems in many of our communities. We became interested in Nxtgen Care's innovative solutions to help us measure, track, understand, and enhance the meaningful encounters residents enjoy with other people within the community. The Nxtgen Care platform had the potential to give us a more granular picture of how we're serving our residents and meeting their needs. It's not just about care, it's about creating a meaningful life while they're with us.

Nxtgen Care is new to us, and the state process for vendor approval is a lengthy one. RCare, however, is an approved vendor, and we have long-term experience with using their nurse call systems successfully. So, we asked our distributor, Unified Alerts, to approach the two companies with the idea of integrating their systems. By accessing Nxtgen Care solutions through RCare, we could simplify and shorten the approval process. More importantly, by marrying the two programs, we would have the

communication capabilities, along with insights into resident's healthcare as well as business intelligence to better serve our residents and to support our staff, within a single system.

Our approach was to begin by implementing the integrated system in one of our new communities, The Templeton of Cary in North Carolina, with plans to expand to additional communities in the following year. Templeton is a 5-story building with a capacity for 120 residents, that offers three levels of care: memory care, assisted living, and skilled nursing.

To the residents, it comes down to a single device, a wristwatch-style wearable, called a "Liveable," which staff members also wear. The Nxtgen Care platform uses the Liveable devices to locate people within the community in real time. By knowing where each person is in real time, it can also tell who they are with, how close they are, and for how long. Their algorithms use distance and duration to associate a level of "meaningfulness" to each contact. In addition to social and personal interactions with other residents and staff, who also received their own Liveable devices, the data also provide us with insights into staff responses to call buttons, resident attendance at meals, scheduled activities, physical activity, and more.

The same Liveable device is used as a substitute to the traditional pendant that residents can use as a push-button alert for the nurse call system. In this way, residents wear only a single device that serves multiple purposes. It's waterproof, so they never need to remove it.

Alerts from both systems are received by RCare Mobile smart phones, that tell staff where the resident is, and the nature of the event. This may be a typical request for assistance, or an automatically generated alert based on the location of the resident. In addition to receiving alerts on their mobiles, staff also use them to see the location of other staff members, manage workflow, and to text one another to request information or backup assistance.

One of the roles of the Nxtgen platform is to help us determine the amount of social and personal interactions each person has, and build an understanding of the level of connectedness each resident has, the number of meaningful interactions they have daily, and the quality of their social capital. With the start of the COVID pandemic and subsequent lockdowns, we again turned to RCare and Nxtgen Care, who adapted their systems to help us use that same information to enable efficient and accurate contact tracing and to maintain isolation for infection control. The system can detect when someone is entering an isolated area and trigger a notification to allow staff to intervene.

## Outcomes

The staff love it. We're able, in real time and real life, to determine what the needs of the residents are and if our staffing is appropriate for the level of need, interaction, and care that residents require. It creates a very supportive environment for our staff. If they need assistance, they can see in real time, on an actual floorplan, where others are located. If an aide is in the bathroom helping a resident, they might send a text with the mobile that she'll see when she's done. They can use their own Liveables to request backup help, which expedites the partnering for them, and really creates advantages for staff to work harmoniously together, to serve our residents and each other.

Being able to see the location of residents within the building is a big help to staff. Whether they're responding to a request for assistance or doing a scheduled check, it eliminates the time spent looking for the resident. And it helps staff not to be monitoring multiple systems, listening for pages from pull cords or watching their mobiles for calls, and that's been great. And the residents like knowing that they always have a call button within reach.

Our original goal was to benefit the residents, but a surprise outcome was the increased staff efficiencies, which free people up for more meaningful interactions with residents. We were also happy to observe the reduction in administrative time spent reviewing staff productivity and incidents, as well as preparing reports for such reviews. And managers have said it's such a time-saver to easily find staff when they need to follow up.

In terms of real data, the results are impressive. In a pilot study conducted by Nxtgen, staff response times decreased 66% and resulted in an average response time significantly under the community's three-minute goal. There was also a measurable decrease in emergency transfers. Resident satisfaction increased by 4% in the one-month study period, and family satisfaction increased by 6%.

We've seen the advantages for specific situations as well. One of our residents has wandering tendencies and she can become combative when you come up to her. Now our staff can give her the space she needs to wander. We can easily configure spaces as off-limits, so a notification event will be triggered if she wanders into one of these "off-limits" spaces. This means staff do not have to watch her constantly. Rather, the software is watching 24/7 in real time, keeping her safe. That's a nice feature for similar residents who are diagnosed with dementia.

It's also been helpful for families. We're able to show how quickly staff are answering calls. We know that to residents it can feel like a much longer wait, but we were able to validate that where they thought it was 45 minutes, it was only a few minutes.

It's been helpful for infection control, which was critical in the past year. When staff enter the building, they can immediately see on the map who is on contact precautions. It's been wonderful for infection control communication.

### **Challenges and Pitfalls to Avoid**

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The biggest challenge was the disruption to staff. Though staff have told us the integrated platform is as easy to use as Facebook, it changes workflow and provides a new level of transparency and accountability, things that may make many people uncomfortable initially. The Nxtgen platform helps us to identify more quickly the staff that need coaching. This has saved us time and money.

### **Lessons Learned/Advice to Share with Others**

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Staff adoption is key to the success of the system. Training that includes practice sessions and role-playing scenarios will help staff become more comfortable with it. We also implemented staff recognition and other incentives, based on results collected by the system. We created campaigns that "gamified" correct use of the system, successful outcomes (such as improved call response times), and successful teamwork. This proved to be a good way to engage the staff and to help them adopt the new system quickly and positively.

It's important to talk through the initial setup choices with your installers, so that you understand your choices and the granularity of the information that the system has the potential to provide. After you've had the system for a while and feel comfortable with it, we recommend reviewing and potentially tweaking your settings at that time. The tech support at both companies is excellent, and you should take advantage of their expertise.