SENIOR HOUSING DEVELOPMENT:

The Right Tech at the Right Time

Leveraging Experience in Evaluating and Deploying Technology

LCS DEVELOPMENT®

An ▶LCS Company

The technology landscape for senior living continues to evolve with an ever-growing list of platforms and services to optimize the experience for staff and residents alike. But the technology can fall short without the necessary infrastructure in place to support it.

Operators and developers know technology is a critical component of employee engagement, care delivery, and the resident experience. Yet, there are hundreds of technology platforms available to senior living providers, serving countless functions to residents and staff. From electronic medical records to virtual reality, technology aims to fill many different wants and needs within the community.

This white paper will discuss some of the ways operators and developers can review and select technology for their communities, as well as how they can ensure a viable foundation to make it thrive.

INSIDE THE VETTING PROCESS

Many organizations struggle with where to start in vetting technology that is right for residents and staff, as well as identifying whether they have the infrastructure to support it. From wearables to nurse call systems and enterprise Wi-Fi, the process for selecting and investing in technology is critical for providers — both those that are developing new properties and those that are established and are updating for the future.

For Des Moines-based LCS Development, the development arm of parent company LCS, the company has a formal process to ensure technology goals are met. The process begins with the Innovation Council, which the LCS Family of Companies first established in early 2018 in recognition of the impact that rapidly changing technology has on the senior living industry, and to better prioritize technology initiatives to meet the needs of clients best.

"The purpose of the Innovation Council is to leverage a cross-functional and multidisciplinary team within LCS to examine the technology landscape and to improve resident and staff satisfaction," says Jill Sorenson, senior vice president/senior director of Life Plan Communities for Life Care Services, the management arm of parent company LCS. "Technology changes so quickly, and we want to be proactive."

A cross-departmental approach is essential. The Innovation Council comprises members from various departments across LCS, including IT, operations, development, sales, marketing, healthcare, and purchasing, so the entire company is represented.

The council meets monthly to evaluate the changing technology needs of owners, operators, and residents, as well as to vet new products and providers.

Choosing the right technology partners is a systematic endeavor, Sorenson says. To do so, the Innovation Council uses a scorecard to assess each technology with the following categories, which all members are asked to rate:

- **Estimated potential economic and financial impact at the community level**
- **Potential impact on resident satisfaction scores**
- **Expected adoption rate by communities**
- **Tech maturity/sustainability**
- **Brand support**
- **Resident experience (satisfaction, quality of care, health outcomes, safety)**
- **Employee impact (safety/risk management, increased efficiency, engagement, recruitment)**
- **Cross-functional impact (impacts multiple departments at the community level)**

The providers and products with the highest scores are then selected for further consideration, which might include implementation or a pilot program.

LAYING THE GROUNDWORK

But the latest technology products and services are useless if the infrastructure is not there to support them. Purchasing and installing technology is just one small part of the process of tech implementation. Doing the groundwork upfront – in the initial design and planning of the community – is equally essential to the success of technology implementation. It's valuable to have a development partner who can guide the process and foundation required for evaluating the tech landscape as well as strategies for providing the infrastructure that will deliver service for years to come.

"From the development side, we need to have the right wiring infrastructure, today that's a passive optical network (PON)," says Joel Bleeker, AIA, vice president, director of design and construction for LCS Development. "That's what I want to get right in all of our projects."

LCS DEVELOPMENT®
An ▶ LCS Company

To get it right, Bleeker, who is also a member of the Innovation Council, says it involves a lot of communication – talking to development clients about their goals, talking about infrastructure and popular technology options, and talking about the communities they will serve. Not all senior living communities are aware of what kind of infrastructure they need, so sometimes a discussion can turn more into an investigation, Bleeker says.

Fiber optic infrastructure versus conventional copper infrastructure is one technology that is standard across new LCS Development construction projects. Each building's infrastructure is robust in bandwidth, simpler to install, and longer-lasting.

"The building area, air-conditioning and electrical needs are far less with the PON," Bleeker says. "Copper wire is limited to 100 meters (330 feet) before you have to do any signal boosting, and single-mode fiber optic cable can run 20 kilometers (12.4 miles)," he says.

"Also, single-mode fiber has 100 to 1,000 times the bandwidth of Category 6A copper cable in a much smaller cross-section. "Seniors stream a lot of video content, and with its massive bandwidth, the PON can make that a seamless experience."

The PON also provides an opportunity to create subnetworks for various discrete applications such as business operations, HVAC controls, lighting controls, building security.

THE NEW TECH STANDARD

According to Fahad Aziz, co-founder and chief technology officer for Caremerge, a Chicago-based provider of resident engagement and family communication solutions, the following technologies are becoming standard in today's senior housing communities.

INTERNET/WI-FI

This is the most critical component of any technology adoption. Buildings should use materials in walls and floors that do not block Wi-Fi.Architectural design blueprints should include Wi-Fi plans.

IN-APARTMENT AUTOMATION

Switches/Lights/Thermostats/Blinds/etc. can be controlled through mobile and voice speakers. There should be an option to install and replace them in every apartment easily.

TRACKING

Many new technologies allow community management to track residents/staff movements for security and wellness purposes. Roofs must accommodate GPS signals for this purpose. Any under-floor sensors designed to track residents when they walk, go to the restroom, sleep, encounter a fall, etc. should be installed during the development.

TV SCREENS

The walls should have a built-in design for TVs that display menus, activities, announcements, etc. TV cables should be run in the community's walls.

Residents can also have subnetworks. Imagine each resident assigned to their own subnet off the PON that gives them their own personal network. With the widespread use of the Internet of Things (IoT), communities need to manage devices efficiently and think about the security of networks.

"These networks are secure from the outside and can enable residents to use their own network anywhere on campus as long as there's a Wi-Fi connection," Bleeker says.

ELEMENTS FOR SUCCESS

Though the goals are the same, renovation projects may go through a slightly different process as the existing infrastructure may need to be augmented or overhauled to support the new technology. There are certain infrastructure elements that can help to position communities

for success using technology and are becoming standard such as Wi-Fi and in-unit voice automation technology.

But as new owners, operators, and developers enter the senior living market, installing the right technology infrastructure and applications may not be as easy as it seems. Working with

> ## "We see communities and families get really excited about new technology, but that doesn't mean that it is a proven solution."
>
> ### - Fahad Aziz
> *Co-Founder & CTO of Caremerge*

development and operating partners that have access to a structured vetting process can help avoid making the wrong investment decisions.

An organization experienced in planning for new senior living technology can help operators identify their audience. During the planning phase, operators should be able to answer:

- **What are your technology goals?**
- **Who is the target audience?**
- **What is their demographic?**
- **What is their care level?**
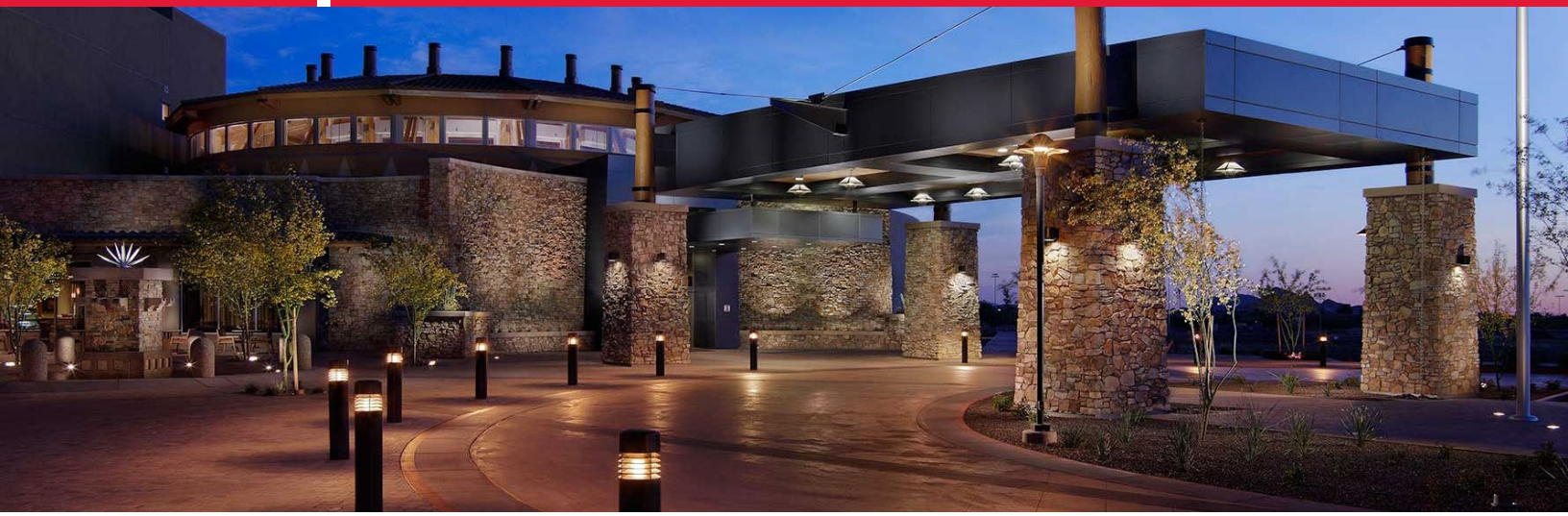
LCS DEVELOPMENT®
An LCS Company

"We see communities and families get really excited about new technology, but that doesn't mean that it is a proven solution. Residents and families need to do their homework on the size, scale, and scope of some of these technology organizations and ask for references," says Fahad Aziz, co-founder and chief technology officer for Caremerge, a Chicago-based provider of resident engagement and family communication solutions. "During your process, ask many questions and, if possible, test new technology to see how it can work within your organization."

"Forward-thinking owners and operators will use technology to remain relevant in their marketplace by developing a technology strategy prior to building or renovating," says Ted MacBeth, senior vice president/director of life plan development for LCS Development.

Additional considerations are understanding the technology needs of residents, deploying the appropriate technology platforms, and evaluating the return on tech investment.

Working with experienced partners provides excellent insight into what works as well as what doesn't. And ultimately, Sorenson says, the goal is not just to implement technology just for technology's sake. It's to improve lives.

"Forward-thinking owners and operators will use technology to remain relevant in their marketplace."

- Ted MacBeth
Senior Vice President/Director of Life Plan Development for LCS Development

"We want technology that will make a difference in the lives of our seniors, or will make our employees' jobs better, more efficient, and safer," she says. "We want to hone in on those technologies that can really help with that."

LCS
DEVELOPMENT®
An LCS Company

We've Built a Reputation for Improving Lives

Communities eventually age, and in some cases need to be built from the ground up. To attract new generations of residents, communities must ensure they continually provide the newest offerings to meet prospective clients' demands. Building, expanding, and repositioning senior living communities is our specialty. LCS Development provides senior living owners and sponsors with assistance in every phase of development, to help ensure you reach your community's goals. Whether it's for rental or Life Plan Communities, we bring more than four decades of combined senior living insights and experience to the team. At LCS, Experience Is Everything.

Phone: **515-875-4755**

Email: **LCScompanies@lcsnet.com**

Website: **lcsdevelopmentLCS.com**

LCS DEVELOPMENT®

An ▶ **LCS** Company