



**Considerations for Implementing Safety & Wellness Systems in Senior Living and LTC Communities**



Advancing a Technology-Enabled Standard of Care

White Paper

## Executive Summary

In response to senior living and long-term care providers' desire for practical, unbiased guidance on technology deployments, AgeTech West established a workgroup to develop provider-focused guidelines on common technology challenges. This white paper aims to help information technology professionals and decision-makers successfully navigate the evolving array of safety and wellness systems by sharing general considerations for design and implementation in senior living and long-term care communities. It also lays a foundation for developing technical best-practice standards.

Ensuring the safety and wellness of residents is one of the main things that senior living providers do, and is arguably one of the *most important* things they do. Technology has changed and improved to make the caring for a resident both easier and more comprehensive. From the early 'light on the wall' to advanced diagnostics technology has improved over the years, and now we rely on it to increase the level of safety and wellness of our residents while ensuring their privacy.

There are dozens of technology companies working in the resident safety and well-being space today for various aging service organizations from independent living to assisted living, skilled nursing and home and community-based service member support. Although vendors provide information about and the benefits of their products, it's important that service providers enter into those discussions with the working knowledge of what the state-of-the-art is, and what the right questions to ask are in order to be successful in understanding the technology, the options available and deployment challenges.

This paper was written by a small team of information-technology specialists and CIOs with over 20 years of combined experience in safety and wellness for seniors. We have done our best to stay 'vendor agnostic' with regard to specific features, and are instead speaking in terms of basic technologies and capabilities. It's our hope that this document will assist you in that goal. What you will not find here is a list of vendors and what they offer, but rather a

list of concepts and how they could be used in your communities.

Whether your organization is comprised of a single-site assisted community, a 50-site affordable housing organization, or a continuing care retirement community (CCRC), there is something in this document of relevance to you.

## Definitions, Questions and Answers

*What is Personal Emergency Response? (PERS) - PERS is the most basic system for resident safety.*

In its most generic form PERS is a system that allows a resident to request help or assistance that alerts staff or family to that need. In a home environment 50 years ago it might be as simple as a cow bell that is shaken when Aunt Sally needs assistance or more ice water. Today wireless pendants with GPS and fall detection are available, but they are not that far removed from the cowbell in that someone requests assistance, and someone else provides assistance. Most of the readers of this document already have PERS systems.

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## Contents

- 2** Executive Summary
- 2-3** Definitions, Questions and Answers
- 3** Wellness Systems
- 3-4** Elements
- 4-5** What makes a safety and wellness approach "2.0"?
- 5** Barriers to 2.0
- 6** Discussion Preparation
- 6-10** Case Studies
- 10** Case Study Vendor List
- 11** Appendix A: Contributing Participants
- 12** Appendix B: About AgeTech West

## From Bells to Sensors

PERS, unlike other types of security applications, exist to protect individuals from personal harm. They do so by providing instant alerts to caregivers in the case of an emergency. This can be when a resident considers him or herself in imminent danger, needs immediate assistance, or even when they become aware of a broader emergency. Usually this means each resident will carry a wireless transmitter in a pendant that can be activated in the case of an emergency. Repeaters are then located throughout the building to ensure that the signal is carried to an RF gateway, which disseminates the alarm to the appropriate personnel, who can respond as needed.

**Location** - A PERS that does not provide location is of limited use in large settings because residents are inherently mobile. As such, an effective PERS must be able to provide the location of a pendant press event with a high enough level of granularity to provide an effective response. Otherwise you just know that 'Mrs. Smith' needs help somewhere on your 50 acre campus.

**Alerts** - As systems get more sophisticated the PERS must also provide a method for coordinating the delivery of alarms. Alarms must be delivered to the right people, and if some or all of those people are unavailable, delivery must then proceed to others able to deal with the emergency situation. Since different staff will be available at different times, the system must also allow for different alerting actions based on the time of day, or day of week. To better understand and plan for emergency events, all alarm events must be captured by the PERS, and the system must be capable of providing reports on alarm activity.

**Integration** - The more complete a picture of the emergency that it's possible to have; the more likely it is that the emergency will be appropriately handled. So the systems might also be able to integrate with traditional security end devices, like door/window sensors, smoke detectors, and motion sensors.

## Wellness systems

**Wellness Systems** - PERS has been around for decades, and mostly well understood. 'Wellness systems' are much harder to define.

First of all, what is wellness?

According to Dictionary.com Wellness is:

1. The quality or state of being healthy in body and mind, especially as the result of deliberate effort.
2. An approach to healthcare that emphasizes preventing illness and prolonging life, as opposed to emphasizing treating diseases.

There is really very little debate about whether or not these are 'good thing' for us to do in our communities and in fact many people are currently researching 'Wellness', with nearly as many different definitions of success. There do seem to be some trends in the senior living space and some similar goals across organizations.

1. Allow seniors to safely stay in their own homes as long as possible
2. Using sensors to augment staff observations about the resident's overall health
3. Using sensors to monitor for 'events' such as night wandering, gait change, or UTI
4. Sense for falls or lack of movement
5. Sense for medication regimen adherence

With technology constantly evolving, the PERS and Wellness systems are challenged to integrate with the overall technology strategy of any organization. The system must be easy to use, and must be capable of leveraging the existing on-site computer network and allow administrative access from on-site and remote PC workstations.

The ongoing improvement and expansion of these systems has been dubbed Safety and Wellness 2.0.

## Elements

What are the main 2.0 characteristics and subsystems?

1. Sensors (to capture data, conditions or events).  
Might be overt or invisible.
2. Networks (to transport data)

3. GPS/Triangulation Location information
4. Workflow and/or business processes
5. A server with reporting, alerting, or action taking algorithms

Why do we need systems that collect and report all this information?

We need to address the sizable gap between available, affordable caregivers and the amount of care that will be needed by society as the average age of our residents continue to rise. Today that gap is filled by sons and daughters, by assisted living staff, and in some cases nursing staff. This does not scale well, and the only way to address this is through distributed sensors, remote monitoring and sometime in the future, care robots.

Modern situational awareness systems have been developed to take data from a variety of sources and transform that data using business rules into actions. Various tools have been developed in order to allow events and their reactions to be specified in a general, flexible way. Many of these tools are based on Event-Condition-Action (ECA) rules and provide a language of operators for specifying these rules. Simply put these systems know what is going on around them, know what is important, and knows how to react in a useful way. For example:

1. A door being opened at 3:00 AM might cause an alarm, while at 3PM it causes no alert.
2. An unanswered page might escalate and page other caregivers
3. A temperature probe reading above 90 degrees or below 60 degrees might result in a phone call to caregivers or maintenance personnel.
4. If toilet use exceeds 8 times per day, an email may be sent to a caregiver to evaluate for UTI.
5. A medicine cabinet NOT opening on a regular basis will result in an alert
6. Other creative ideas that translate sensor data into conclusions or hypotheses.

## What makes a safety and wellness approach “2.0”?

Simple PERS systems have been around for decades. With the advent of new technologies many features have been added.

There are 2.0 features appearing so look for these features that help the basic systems get closer to PERS 2.0.

1. Location Tracking and reporting: You are able to tell WHERE on the campus the senior requested assistance. Obviously this is easy for static components like pull cords, but much harder for mobile pendants. The technology establishes ‘Points of Interest’ on the campus and then uses special software to create a vector map of the community.

When at least three of the previously mentioned ‘Receivers’ detect a signal the computer uses basic triangulation computation to estimate the actual location of the resident. Establishing Points of Interest is a labor intensive process today, but the more the more POI’s mapped, the more accurate the location data provided. This can help caregivers locate residents who need assistance as quickly as possible. Recently introduced systems include cellular enabled pendants that use GPS technology and watch based systems that leverage the GPS capabilities of a companion smartphone.

2. Automatic ‘Check-in’ for Residents: In the senior environment it’s important to know that the residents are ‘up and about’ in the mornings and that they are well. Many physical systems have been used in the past including door tags, flippers, mailbox cards, door-to-door checks, and more. Automation of this process involves using sensing technology (motion sensors or door magnetic contacts) to detect that a senior is up-and-about. The community can print a report of those not seen to be active and either call those residents on the phone or knock on their door.
3. Automatic telephone out-dial in case of emergency: In the event of an emergency some systems can target the building/floor/campus resident areas affected area, call all the proper resident’s landline or cell phone and deliver a voice message that describes

the situation and recommends the protective actions residents should take. An example might be “Water will be turned off tomorrow in building six from 8-9:00 AM.”

4. Use of alternate receivers: Most systems on the market today are radio frequency based. This is the technology that has been used for years. Some systems use alternative transport such as ZWave, Zigby, or Bluetooth LE. A recent and major change is in the use of Wi-Fi access points as receivers. The benefit of this is the ability to leverage that technology for a host of other services such as internet access for residents and staff, the monitoring of environmental controls and advancing the ‘Internet of everything’.

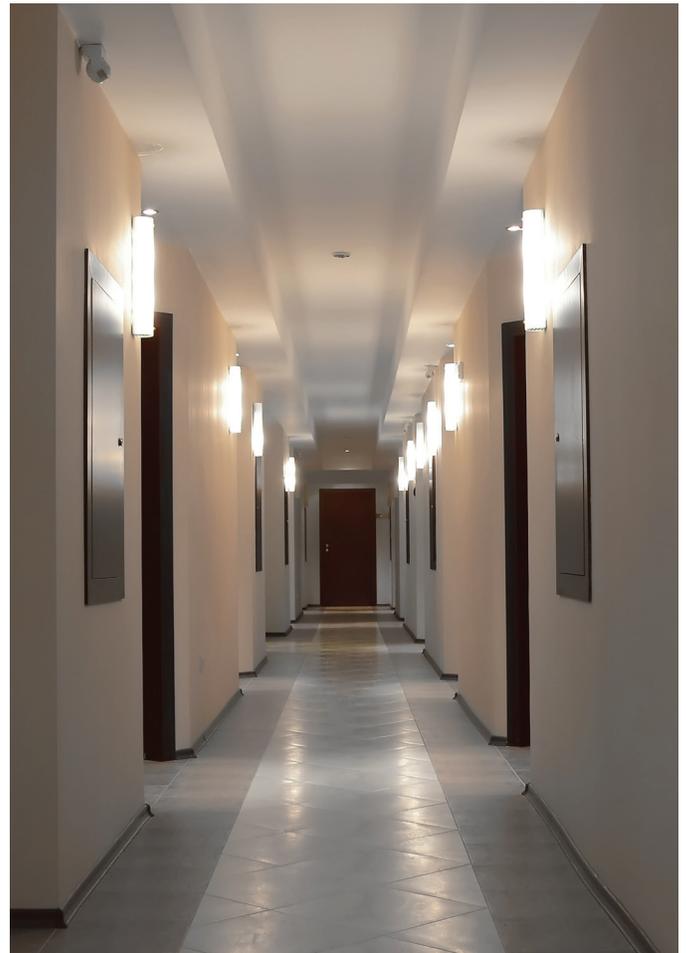
WiFi is remains so relevant that AgeTech West has sponsored a paper on this subject to help readers understand the advantages, capabilities, considerations and limitations of WiFi.

5. Fall Detection: Some personal pendants offer fall detection, where a g-force chip or accelerometer detects the action of a fall. If a fall occurs the pendant will sent an alert on behalf of the resident in case they cannot press the button themselves.
6. Wander Management (aka Elopement): Some residents in a memory support environment are in danger of wandering out of a building, perhaps into a hazardous area like a street. A combination of delayed egress doors and sensing bracelets can help keep residents from wandering. If a resident wearing a wander wrist tag approaches the door and the door opens, an alarm is generated and displayed on the staff pagers or other alerting devices so the resident can be redirected. Or if preferred, the door will lock to prevent the resident from leaving. Some systems can provide asset tracking, staff tracking and patient location on a facility map including name and picture. For bypassing doors, staff members simply need to wear their staff pendant tags: doors will unlock automatically and the system will record the identity of the staff member and the resident he/ she is escorting. Detailed logs can be used to document a wander incident. For use outside a resident community there are a variety of GPS based solutions that have an alert button but can

detect when a resident has wandered outside a specific set of geo-coordinates, or that can locate a resident if they have become lost.

## Barriers to 2.0

One barrier preventing providers from realizing all the benefits of this potential torrent of information is that vendors frequently build proprietary data models and dictionaries, particularly when they have an existing installed base. Understandably, this approach helps to secure market position and ensure that customers return for future buys and upgrades. As a result, most vendors and solutions have a ‘one service, one management screen’ model. In other words, each solution has its own control panel, does its own analysis, does its own reporting and is designed to run ‘stand-alone’. Any integration that happens is a result of smart people looking at disparate systems and making their own conclusions and decisions. A new approach to integration is necessary for “2.0” and beyond to be possible.



## Discussion Preparation

At the end of this document is a partial list of technology companies that provide either PERS or wellness systems. As with all markets, a sales person's job is to be skilled at describing the virtues of their products and the benefits to both caregivers and seniors.

The best way prepare for an exploratory conversation with potential Safety and Wellness system partners is to understand your community needs and have a comprehensive list of questions to address.

Questions to ask of Resident Safety & Wellness System vendors include:

1. Regarding PERS
  - a. What works when the power goes out?
  - b. How long do batteries last?
  - c. What part of the campus will be covered?
  - d. How many levels of alerting are there?
  - e. What are the standard reports?
  - f. Can the data be exported for offline processing?
  - g. Will I get location information?
  - h. Do the pendants support fall detection?
2. Regarding elopement systems
  - a. How many doors will need to be protected? Are

they single or double doors?

- b. Do you want the doors to lock on approach of a patient/resident tag?
  - c. How many residents do you consider an "elopement risk"?
  - d. How many keypads will you need?
  - e. Does the system provide 'escort tags'?
  - f. Do you want to alert on loitering?
  - g. How do you handle elevators in the living space?
  - h. What methods of alerting do you support (page, voice, text, alarms, lights)?
  - i. What escalation capabilities are provided?
  - j. What kind of wearable sensors are available?
3. Regarding Wellness Systems
    - a. What are you detecting? (motion, pulse, gait, contacts, environmental, respiration rate)
    - b. What transport is used?
    - c. What technologies are used for sensor communication and communication to the console?
    - d. What alerting is provided and on what occasion?
    - e. How are dozens or hundreds of residents managed?
    - f. What data is exportable for analysis or reporting?

## Case Studies

### CASE STUDY: Skilled in ABHOW Seattle – A wireless system replaces a wired one in Skilled Nursing

#### The Need

Technology ages, as do all infrastructures. ABHOW's Judson Park in Des Moines, Washington found themselves at a point where the Nurse Call system in the Health Center was at the end of its useful life. Parts and companies that could provide support were scarce and expensive. The system was not able to produce reports required to satisfy surveyors, team members, and resident families. Since upgrading the system was not a possibility so an entirely new solution was required.

#### The Solution

There were two main considerations that lead to a common sense decision. First, a Stanley Arial PERS system was already in place for the Independent Living/Assisted Living/Memory Support levels of care and all common areas. The second item was the opportunity to install a wireless solution since the State of Washington, unlike California, does not require all devices in a Health Center to be in accordance with UL 1069 and thus, in most circumstances a hard-wired system. The resulting design included an upgrade and expansion of the Arial system and a relocation of the paging base. This was important since the system now had to cover an additional three acres of the community. Additionally, the older wireless network and devices were 900 MHz Frequency Agile (FA),

which are no longer produced so a new 900 MHz EchoStream (ES) network had to be added for the new coverage area. The replacement included 104 resident bedside stations and 58 bathroom and common area pull cords in the Skilled Nursing Building. All of the hallway annunciation lights were replaced with multi-bulb, multi-color dome lights. Team members in Skilled Nursing were given training on the new equipment and new procedures. Those responsible for reporting and monitoring of the system were trained on the upgraded features and new user interface.

### The Results

Immediately after the installation ABHOW's team found that responding to resident needs became faster and more efficient. Having reports provided by the Arial system helped the team improve training and prove our care and attentiveness. Utilizing pagers gave the caregivers detailed information about the exact resident who requested assistance while the multi-light hallway domes indicated which device in a given room was used for alerting, allowing the care team to approach the room with a prepared mindset. Furthermore, ABHOW's desire for a quieter, home-like environment was fulfilled as the pagers were silenced and there were no loud, audible alarms up and down the hallways. Our team is more efficient and families are confident knowing that we are doing everything we can to make our resident's lives better and more peaceful.

### CASE STUDY: Emergency Call and Resident Monitoring at Pacific Retirement Services

Pacific Retirement Services, Inc. (PRS) is committed to developing, building and operating not-for-profit retirement communities that offer activities, services and programs that promote health, wellness and vitality. Every PRS community operates on four core principles: Community, opportunity security and stability.

#### The Need

To provide residents with security and stability, one critical element in each of the PRS communities is emergency call and resident monitoring systems. Management needed:

- One solution that could meet the requirements of all our communities. This includes new construction and retrofits; encompassing an upscale 30 story high rise CCRC, an established skilled nursing community, a large single building and communities with multiple buildings
- A solution that provided safety and flexibility and importantly supported quality of life without the stigma that often comes with a traditional emergency call
- A system that could provide a sophisticated, unobtrusive method of notifications in addition to the more traditional nurse call required in skilled nursing
- Unobtrusive stations that work with community design aesthetics and emergency pendants that residents would carry
- Flexibility and scalability provided without constant battery changes or prohibitive cost
- Sophisticated reporting
- Access to continued development including software updates
- Backward compatibility including the ability to integrate new technology

### The Solution

PRS partnered with Vigil Health Solutions Inc. (Vigil) to implement systems that supported these needs in a flexible way. With a reputation for innovation, Vigil provided emergency response and resident monitoring solutions for the full continuum of care, addressing the needs of PRS' diverse communities. The Vigil Integrated Care Management System™ (Vigil® System) includes nurse call, Vitality wireless and hybrid emergency call, wireless Mini pendants, resident check-in, bed monitoring and a unique non-invasive monitoring system for dementia.

### The Results

The Vigil Platform allowed PRS to tailor coverage throughout their buildings installing wireless or a hybrid of hardwired and wireless depending on the level of care (independent, assisted or skilled). This gave flexibility in device location and

the use of pendants, while also supporting more traditional needs like a nurse call system utilizing corridor lights and specialized call cords for skilled nursing environments. In addition to the ability to expand existing systems the Company's releases regular software and hardware updates which provide access to new innovative features and functions.

The company's most recent innovation addressed a number of key concerns. Their latest wireless technology, the Vigil Vitality System, based on the IEEE 802.15.4 standard, supported longer battery life and smaller, more visually appealing devices with built in sensing technologies including motion and temperature. The system also offers easy to use software reporting. The real time event tracking records all activities, providing detailed reports on staff response times (contributing to risk management) and call volume allowing management to identify trends and effectively allocate staff.

Each PRS community has common core principles, yet each is also unique and as such have different emergency call and resident monitoring requirements. In utilizing the Vigil System, PRS is able to select the elements that they need today to get the best, most cost effective solution and have the comfort in knowing the system is scalable if things change in the future.

### **CASE STUDY: Passive Monitoring at ABHOW Los Gatos for Skilled Nursing and Memory Support**

#### **The Need**

Like many senior living communities across the country, the staff of The Terraces of Los Gatos works hard to ensure a safe and peaceful environment for their residents. In 2011, two primary concerns for administrators were the need to reduce pressure ulcers by ensuring a regular and auditable turning schedule for each resident, as well as the desire to reduce frequent audible all alarms, which were bothersome to both staff and residents.

#### **The Solution**

To address these ongoing challenges, The Terraces of Los Gatos began testing the BAM Labs® Patient Safety Monitoring solution. STANLEY Healthcare

and BAM Labs have since formed a partnership to make this innovative solution broadly available. Beginning with a test of eight beds in a mixed-resident unit with pressure ulcer concerns, and eventually expanding to all 59 beds in the facility, the cloud-based solution was easily implemented. Executives and staff were trained in system use. Initially, there was minor resistance from staff who were accustomed to the audible alarms, but that eased as familiarity with the system grew.

#### **The Results**

The deployment and use of the Patient Safety Monitoring solution over the past several years at The Terraces of Los Gatos has been a resounding success. The incidence of resident falls from bed has dramatically decreased, and new pressure ulcers have almost entirely disappeared. From a usability standpoint, the nursing staff has seen the positive impacts on resident care and finds the solution to be very helpful in their daily routine. Most importantly, residents and their families are delighted, enjoying the unobtrusive nature of the sensor pad, a much quieter living environment, and the peace-of-mind from the diligent monitoring enabled by the solution.

### **CASE STUDY: Activity Monitoring at PEP Housing**

#### **The Need**

PEP Housing (<http://www.pephousing.org>), a Northern California non-profit provider of affordable independent housing for low-income seniors, sought a technology innovation to support its residents remain living independently at home longer.

#### **The Solution**

PEP Housing submitted its interest and was paired to be a provider partner with Lively (<http://www.mylively.com>), a new remote activity monitoring technology, as part of a Pitch for Pilots program at an AgeTech West Conference. The pilot ran for approximately six weeks, wherein PEP Housing residents tested the efficacy of Lively in establishing a daily activity connection between older adults and their families or others concerned about their health and well-being. An attractive differentiator of the Lively system is its affordable, low price point, which complemented PEP Housing's nonprofit's mission to empower

seniors to live independently without making cost a limiting factor. PEP also was attracted to Lively as a way to provide residents with a dignified, non-intrusive way to feel safer and more confident living on their own, while enjoying a richer connection to family members and other loved ones – without requiring a broadband connection or costly set up.

Lively uses passive sensors applied to everyday objects in the home to measure daily activity levels and automatically notify family members or other designated caregivers when anything may be amiss. As part of the Lively service, the eight participating PEP Housing residents could also receive LivelyGram, a printed mailer of photos and short messages that family members submit to share the daily events of their lives. Lively's hardware uses built-in cellular technology with passive activity sensors that track day-to-day patterns, like kitchen activity, to understand when meals are prepared or consumed, time spent getting outside, and when medication is taken. With this knowledge, loved ones can worry less and avoid asking nagging questions such as, "Did you eat?" or "Did go outside today?" The device has no video cameras and is simple to install. An at-a-glance online display can be shared via the web or smartphone, and notifications update the user and the circle of people with whom they choose to share their activities.

### **The Results**

A total of eight residents, together with family members, participated in the pilot project. Participants and families alike reported greater peace of mind with the system. Participants also praised its elegant and simple design. Three of the eight participants (37.5%) adopted the technology on their own beyond the pilot period. PEP Housing will continue to encourage its residents to take advantage of the technology to enjoy the peace of mind it can provide for them and their family members. In fact, the next release of Lively will include a safety watch for 24/7 medical alerts and emergency response that replaces traditional neck-adorned pendants, which PEP Housing is eager to offer it as an alternative to traditional systems on the market today.

Quotes from family members included:

*"I enjoyed being able to log on to see she was adhering to her normal routine..."*

*"I really like the program. It allows me to know she's okay without phoning. My schedule is busy and I don't always have 1/2 hour to chat. With Lively, I'm able to know that things are ok and I can call (my mom) when I have time. Seems like mom and I chat more. I look forward to the fall sensor. BTW- she liked the LivelyGrams - wish more family members would use it."*

PEP Housing itself gained valuable learnings from the pilot as well. One was simply recognizing the challenge of "selling" older residents on the use of new technology. Another challenge was finding ways to involve family members to fully take advantage of Lively. Because PEP Housing offers "independent living," many residents are hesitant to "burden" busy family members who often do not get involved until there is a crisis. With Lively's emphasis on deepening the family connection, especially with its LivelyGram service, the family members also need to be "sold" on the idea beforehand in order for everyone to be on board.

Another pilot implementation lesson learned: Residents who use a Personal Emergency Response System (PERS) and have come to rely on their pendant for their sense of security were uncertain about the value of trying another system. PEP Housing surmised that if Lively included an emergency response/fall detection device when the pilot was conducted, it might have appealed to more residents. Lively has since added a safety watch to its system, which can sync with the home-based unit as well as a mobile phone when away from home. The safety watch from Lively includes 24/7 emergency response functionality at the push of a button, medication reminders and even a daily step counter.

## **CASE STUDY: On the Road to 2.0 at ESC; A single management - multiple input system for all levels of living**

### **The Need**

When looking to implement multiple resident safety and well-being technologies in a community or across an organization, there are many benefits that can be gained by centralizing data that is sourced from multiple systems. Minimizing the number of different software applications and hardware devices necessary to operate multiple sensor and monitoring platforms can increase staff adoption and operational efficiency and decrease training needs and ongoing support and maintenance. It can also provide a data warehouse for business intelligence and reporting that may lead to a more complete view of resident well-being. In essence, this kind of multiple-source, single-management solution is what makes it a 2.0 system.

### **The Solution**

Episcopal Senior Communities (ESC) is working to achieve a 2.0 safety and well-being system by implementing a suite of Wi-Fi-enabled products. This solution currently includes, or will include in the near future, tools for personal emergency response, wander management, door checks, behavioral monitoring and sleep monitoring. Although the solution includes different types of sensor technologies, the data gathered is made available through one management software. In this way, we can get a more complete picture of a resident's well-being, while having less software to support and train on.

With existing campus-wide Wi-Fi infrastructures at most of our CCRCs, our goal is to continue to find and implement network-aware, centrally managed, plug-and-play sensor, monitoring and emergency response devices throughout our communities.

### **The Results**

ESC is currently using Wi-Fi-based technologies for traditional emergency response and wander-management use cases. We are also utilizing Wi-Fi-based smart beds for maintaining turn compliance and enhancing our fall prevention program in skilled nursing. Combining data from

both systems, we are looking to tackle several use cases. We are interested in gaining a better view into a resident's well-being after they have been discharge from skilled nursing back to their independent living apartment. By marrying emergency response data with heart rate and sleep activity monitoring, we have to get an early warning if a resident is not doing well. Using a similar combination of data, we are interested in monitoring a resident's wellbeing or change in sleep quality after a change in medication is prescribed and administered.

We are just at the beginning of what ESC hopes to turn into a comprehensive data collection program. Currently, there are not a lot of opportunities in the marketplace to integrate and aggregate data from multiple vendors and technologies. We are confident, though, this is where the future lies and we will have the infrastructure in place to take advantage of opportunities as they arise.

## **Case Study Vendor List:**

Examples and incomplete list of Vendors with URLs and/or other contact information:

### **Stanley Senior Systems**

<http://www.stanleyhealthcare.com/solutions/senior-living/security-protection>

### **Status Solutions**

<http://www.statussolutions.com/>

### **RF Technologies**

<http://www.rft.com/>

### **Healthsense**

<http://healthsense.com/>

### **Lively**

<http://www.mylively.com/>

### **BAM Labs bed monitoring**

<http://bamlabs.com/>

### **Care Innovations**

<http://www.careinnovations.com/>

### **Wellaware**

<http://www.Wellawaresystems.com/>

## Appendix A

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### About Contributing Provider Organizations:

#### **American Baptist Homes of the West**

ABHOW is one of the nation's most trusted providers of senior housing and health care. As a nonprofit, non-sectarian corporation, we are committed to providing exceptional service to older adults, their families and the wider community. Our passion makes us pioneers. We helped create the concept of continuing care when we opened our first community in 1949. Today, we operate 43 communities in California, Arizona, Nevada and Washington, with over 2,300 team members serving more than 5,000 residents. And our passion to make a difference is stronger than ever.

#### **Episcopal Senior Communities**

Episcopal Senior Communities (ESC) is a public benefit, nonprofit provider of housing and services to seniors. The organization's core business is in six Continuing Care Retirement Communities (CCRCs) offering a full continuum of residential care and services ranging from independent living to assisted living and memory care and have a skilled

nursing facility on site. In addition, ESC owns/ sponsors and operates affordable senior housing communities designed for low income seniors. In keeping with its mission and social responsibility, ESC also provides a wide variety of programs and charitable services. These programs operated with the help of volunteers and under the guidance of its Senior Resources Directors who are located in seven bay area counties offer an inventive range of low to no cost program options. These programs include resource referrals, coordination of friendly visitors as well as nutritional and other supportive services to seniors in need. The key programs in its home and Community based services are the Senior Produce Markets, Senior Center Without Walls and ElderWISE. ESC will celebrate its 50th anniversary in 2015 and is headquartered in Walnut Creek, California.

#### **Pacific Retirement Services**

Creating vibrant senior living communities is what Pacific Retirement Services does. PRS provides exceptional leadership to staff, residents and Board Members as an active part of each community, so that each community thrives and is responsive to the needs of its residents now and in the future. We're constantly striving for opportunities to improve the services provided to residents. PRS continuously evaluates our programs and physical plants, looking for ways to improve, expand, and keep ahead of technological advances in healthcare and industry trends. PRS-affiliated communities are recognized for their financial strength and positioned to weather uncertain economic fluctuations or pursue opportunities that enhance resident quality of life. For over 50 years PRS has provided leadership consistent with our values. As a result, residents of 38 PRS communities have access to a retirement experience that provides an exciting lifestyle, opportunities for wellness and healthy aging, and a stable retirement experience into the future.

## Appendix B



Advancing a Technology-Enabled Standard of Care

AgeTech West is a collaborative founded by LeadingAge California, LeadingAge Oregon and LeadingAge Washington to advance the delivery of tech-enabled aging services toward a new standard of care. We believe that technology-enabled aging services can help older adults achieve greater “connected independence,” safety and security, socialization and wellness, and management of personal health while improving care delivery, coordination and efficiencies. AgeTech acts as an educator, broker, enabler and advocate to support aging service providers as they leverage technology to better serve older adults and enhance their organizations’ innovation, strategic growth and sustainability.

[www.agetechwest.org](http://www.agetechwest.org)