



# IMPLEMENTING A ROBUST WIRELESS BACKBONE

*(A Three Volume Set)*

***A Strategy for Senior Living***

**VOLUME 1 - WHY**



**Implementing  
a Robust Wireless Backbone**

***(A Three Volume Set)***

***A Strategy for Senior Living***

**Volume 1 - Why**

**By HealthSignals, LLC**



## IMPLEMENTING A ROBUST WIRELESS NETWORK BACKBONE FOR SENIOR LIVING

## Notes

[illegible]



IMPLEMENTING A ROBUST WIRELESS NETWORK BACKBONE FOR SENIOR LIVING

**Implementing a Robust Wireless Backbone**

*(A Three Volume Set)*

*A Strategy for Senior Living*

*Volume 1 - Why*

**By HealthSignals, LLC**

by HealthSignals, LLC

Copyright © 2019 HealthSignals, LLC

Published by SkillBites Press

All rights reserved.

No part of this book may be reproduced or transmitted in any form or by any means whatsoever without written permission from the author, except in the case of brief quotations embodied in critical articles and reviews.

**DISCLAIMER AND LEGAL NOTICE**

While the publisher and author have used their best efforts in preparing this book, they make no representations or warranties with respect to the accuracy or completeness of the contents of this book. The advice and strategies contained herein may not be suitable for your situation.

You should consult a professional where appropriate. Neither the publisher nor the author shall be liable for any loss of profit or any other commercial damages, including but not limited to special, incidental, consequential, or other damages. The purchaser or reader of this publication assumes responsibility for the use of these materials and information. Adherence to all applicable laws and regulations, both advertising and all other aspects of doing business in the United States or any other jurisdiction, is the sole responsibility of the purchaser or reader.

**ISBN-13: 978-1-942489-82-5**



## IMPLEMENTING A ROBUST WIRELESS NETWORK BACKBONE FOR SENIOR LIVING

## Notes

[illegible]

# Contents

- Introduction... Page 1-2
  - Chapter 1: Senior Living Facilities Must Plan Today for Wi-Fi and the Digital Transformation... Page 3-4
  - Chapter 2: Top Tech Trends transforming Senior Living... Page 5-7
  - Chapter 3: Productivity Increase in Facilities Management... Page 8
  - Chapter 4; How State-of-the-Art Platforms Can Drive Competitive Edge... Page 9-11
  - Chapter 5: Encouraging Social Engagement... Page 12-13
  - Chapter 6: The Power of Personalization... Page 14-15
  - Chapter 7: A Strong Medical Grade Wi-Fi® is Crucial to Success... Page 16-18
  - Conclusion... Page 19
-

## Introduction

It's often called the "graying of America," but the picture this phrase paints doesn't do justice to the remarkable shift that's happening to the demographic group collectively known as "seniors."

It's true everyone's getting older, but on the whole, the U.S. population truly is getting older. Just 20 years ago, the median age in the country was just over 35 years. Today [that figure is 38.2 years](#).

More amazing is the U.S. Census Bureau's prediction that by 2034, older adults will [edge out children](#) in population size. And by 2060, the number of senior Americans is projected to more than double —from 46 million today to over 98 million!





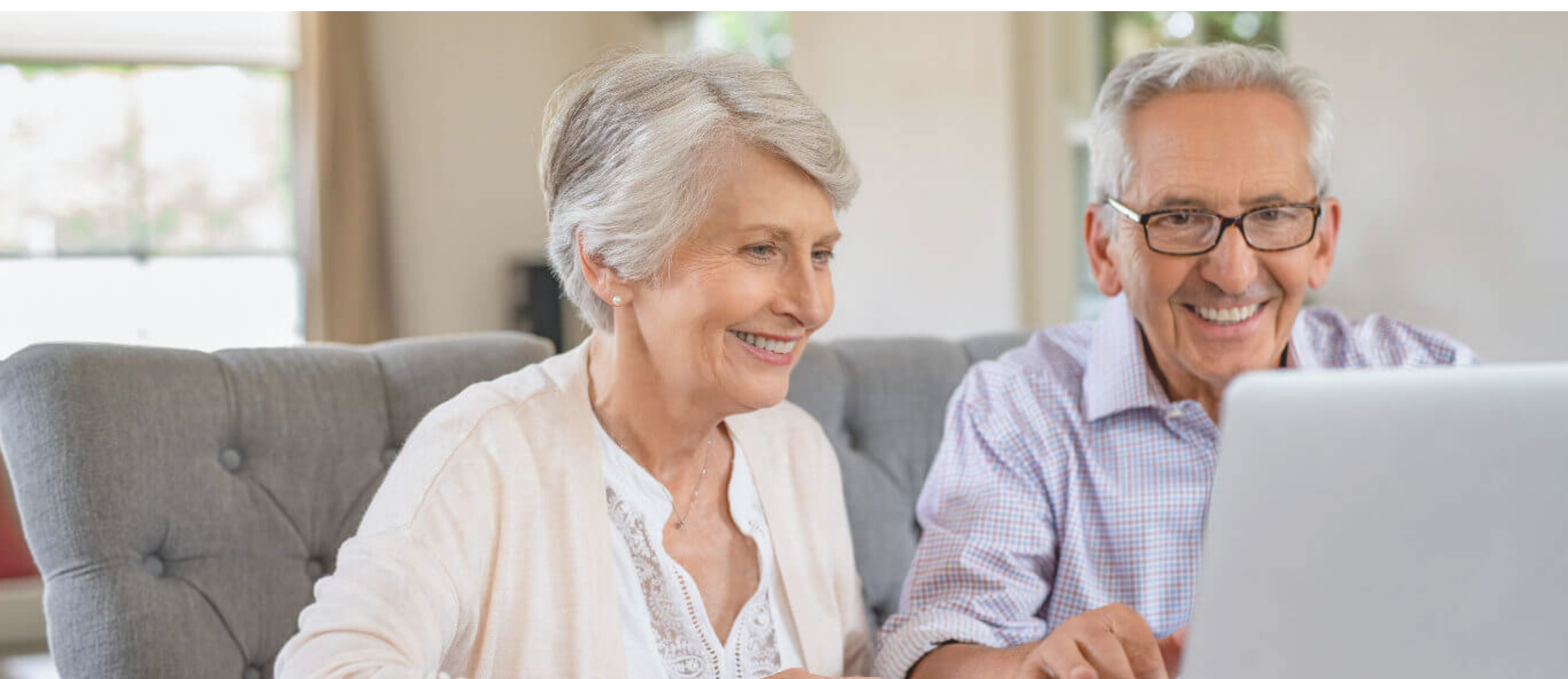
## Introduction

This tremendous growth presents a challenge for senior living and continuing care retirement communities. It also presents a wonderful opportunity for investing in new technologies that:

- Offer residents a better quality of life
- Streamline connected communications
- Encourages seniors to move to communities that offer the digital conveniences they now enjoy at home

Boomers who do decide to transition to senior housing are demanding a whole new level of technology, one that gives them the freedom they need to still feel independent. They crave personalized solutions that reflect and respond to their individual needs and desires.

The bar has been substantially raised for providers who must meet these demands while remaining profitable. The good news is that a better resident experience is more likely to result in [faster growth revenue](#).





## Senior Living Facilities Must Plan Today for Wi-Fi and the Digital Transformation

Senior living providers are going through a digital transformation that requires robust communication solutions for the technology needs of their residents. One of the best ways to do this is by partnering with a single-source provider that delivers worry-free, state-of-the-art Wi-Fi technology with a performance guarantee.

There is a common misconception that seniors have an innate resistance to technology. Today's reality, though, is that many seniors have a close relationship with the digital world. The misguided belief likely stems from research that was conducted at the turn of the century which showed less than 15% of seniors were internet users. Today, nearly **70% of adults aged 65 and older** say they go online. And those who do tend to view the internet in a positive light, logging on every day to stay in touch, be entertained and keep informed.





## Senior Living Facilities Must Plan Today for Wi-Fi and the Digital Transformation

As the Boomers enter senior living communities, providers will be catering to a different market, one that demands a high-quality, luxury experience which includes the latest innovations such as IoT devices, cloud-based applications, and enhanced Wi-Fi networks.

Older Americans are adopting new technologies at an accelerated rate. Providers must do their part by adopting and providing technology capabilities and solutions that help them stay on pace, making a resident's life easier and more comfortable.



## Top Tech Trends Transforming Senior Living

Technology is changing the senior living landscape. From wearables to sensors and TeleHealth, data-collection is having a dramatic effect on the care providers are bringing to their residents, while voice activation, the IoT, interactive TVs, and security improvements are creating satisfying experiences for modern seniors.

- **Wearable health tracking devices** such as Fitbits and Apple Watches make it easier to reliably monitor conditions including heart rates, blood pressure, sleep patterns, speed of movement, and more.
- **Hospital-grade fitness equipment** helps to prevent health problems, diagnose medical conditions, and advance recovery.
- **Wayfinding software** guides residents and visitors in indoor and outdoor environments.
- **IoT devices** such as tablets, smart TVs, wearables, smart speakers and lighting systems improve residents' quality of life by giving them more control over their physical environment while generating the data that providers need to personalize services and predict care needs.
- **Automated building systems** control and optimize heating, cooling, and lighting across campuses.
- **TeleHealth solutions** such as remote consultations, patient monitoring, and video conference health education are designed to easily connect patients with their healthcare providers.
- **Wi-Fi connected** security and surveillance cameras lower infrastructure costs while improving security and wander management.



## Top Tech Trends Transforming Senior Living

Technology innovations increase resident happiness and personal satisfaction such as:

- **Software applications** that facilitate communications between residents and staff. These typically include features such as family portals, menu management, and activity calendars.
- **E-readers** such as Kindles and Nooks offer a vast library of knowledge without incurring the cost and upkeep of a physical library.
- **A.I. enabled personal assistants** such as Amazon's Alexa and Google Home.
- Mobile **keyless entry** apps.
- **Interactive smartboards and touchscreens** for watching videos, videoconferencing with family and friends, and gaming.
- **Wireless charging** solutions.
- **Streaming services** such as Hulu, Netflix, and Amazon Prime for watching movies and TV shows or listening to music.

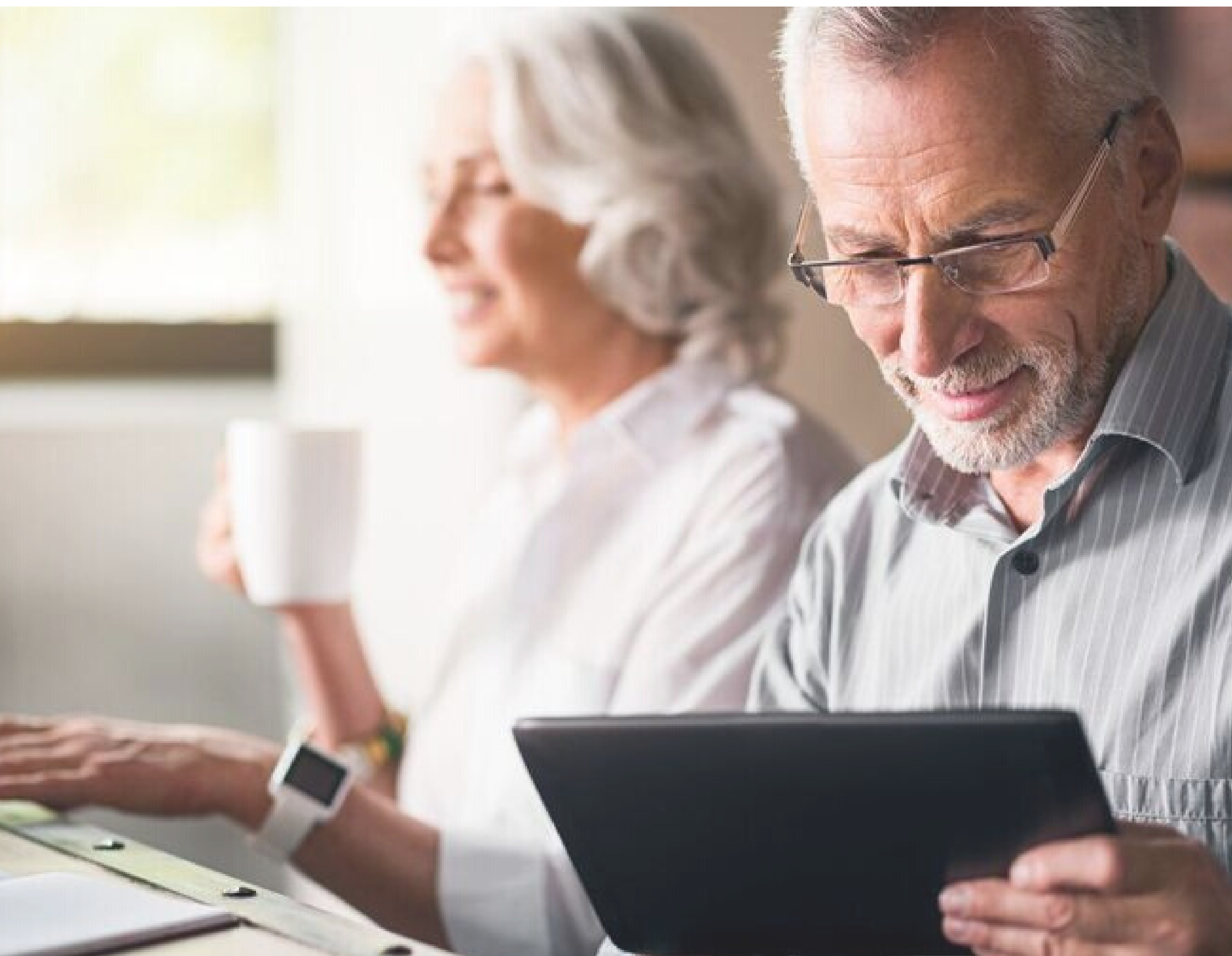




## Top Tech Trends Transforming Senior Living

Obviously, all of these connected devices and solutions are enhanced by a strong Wi-Fi solution that ensures workflow efficiencies while boosting safety and providing daily comforts.

*Medical Grade Wi-Fi® offers 99% reliability, high capacity for vital devices, and HIPAA compliant security. These are all benefits that standard residential Wi-Fi does not always offer and/or guarantee.*





## Productivity Increase in Facilities Management

Modern workflows are increasingly dependent on reliable, strong Wi-Fi that can handle a variety of devices and services used by CCRC staff on a daily basis. Tech can also have a huge impact on employee satisfaction and retention.

Management success and staff productivity now rely on up-to-the-minute solutions such as:

- **Paperless systems** that collect resident information, streamline internal communications, and drive efficiencies.
- Staff members being **matched to residents** they can best serve.
- **Touchscreen devices** that allow for quick access to resident profiles and meal preferences. For a generation that is accustomed to dining out and more attuned to having information on and access to healthy choices, accommodating the dining preferences of Boomer residents offers a competitive strength in attracting them to your community.

Combined, innovations such as these enable your staff to spend more time with residents, doing what matters most, and providing outstanding resident care in a highly personalized manner.

Management can also use these digital solutions to attract and retain top talent, those who want to work with providers who

are more focused on their residents than paperwork.



## How State-of-the-Art Platforms Can Drive Competitive Edge

Senior living providers agree that one key driver for tech adoption in their community is the competitive landscape. Amenities and services such as electronic health records, tracking software, entertainment options, and more are now being used to attract residents to urban and rural senior living communities across the country. The fuller the spectrum of offerings, the better positioned a community is to stand out among its competitors.

Of course, the offerings must be relevant and bring value to a resident's life. While there is no single driver toward technology adoption, most amenities that meet these criteria depend heavily on reliable and strong Wi-Fi services.





## How State-of-the-Art Platforms Can Drive Competitive Edge

Successful communities are those that invest in multi-purpose networking, embracing and integrating network technologies/capabilities such as:

- **Specialty monitoring systems** utilize sensors and alerts that track residents, manage and prevent wandering, monitor falls, send open door and window alerts, smoke and temperature monitoring, flood detection, and resident check-in. There are dozens of new products being introduced on a regular basis, including innovations such as digitally connected smart shoes with built-in sensors that monitor the wearer using wireless networks.
- **Location sharing services** for visitors to help them quickly locate their family member or loved one.
- **Sensors** to track valuable medical equipment and resident assistance tools like wheelchairs, all in real time.
- **Interior and exterior door locks** automated to operate at certain times of the day and that use fingerprint or facial recognition to limit entering and exiting.
- **Building automation solutions** that utilize wireless technology to monitor, control and optimize lighting and thermostats.



## How State-of-the-Art Platforms Can Drive Competitive Edge

Just like everyone else, community residents love heading online for entertainment and social networking, but technology plays an additional, more integral role in a senior's life. A ubiquitous, dependable and secure Medical Grade Wi-Fi® system also helps residents accomplish personal tasks when and how they want. They can reliably pay bills, call for transportation, or order from eCommerce sites, thereby maintaining their independence and the quality of life they enjoyed prior to joining the community.





## Encouraging Social Engagement

A crucial metric in determining a CCRC's success is resident satisfaction and participation. Today, a senior living community without Wi-Fi is like one without other basic necessities such as electricity, heat and water. Residents want to stay connected with family and friends while family members want easy access to information about the care their loved ones are receiving.



Modern senior living communities are robust technology-driven ecosystems with interconnected devices designed to improve a resident's quality of life. Providers must be equipped to support current and future innovations. A strong, scalable solution is Medical Grade Wi-Fi® that provides seamless wireless service across community campuses, including within residents' homes.

Solid network infrastructure is key to keeping seniors as connected as they want to be. As older adults use multiple devices for everything from entertainment to medical management, the community they live in must be appropriately designed.



## Encouraging Social Engagement

- **Live learning and entertainment.** Lifelong learning can now be offered in CCRCs. Educational, streaming, and gaming technologies can all contribute to a resident's increased life satisfaction, mental agility, and decreased loneliness. They also encourage goal attainment, foster better subjective health, and help overcome functional limitations. On the educational front, topics may include everything from business and money to science, history, technology, lifestyle, and health.
- **Social media.** The importance of social engagement and interaction [is well-documented](#) as promoting positive mental and physical health in older adults with the use of social platforms such as Twitter, Instagram, and Facebook increasing life expectancy. Using a tablet, computer, or other mobile device, residents can connect with family, friends, and like-minded individuals from around the world to discuss their life, loves, and interests.
- **Chat.** Senior chat rooms and groups are a great way for seniors to meet new people, share ideas, and expand their social circles. Residents want a CCRC that makes social interactions and connections an easy and pleasant experience.
- **TeleHealth** makes residents feel secure: the ability to receive consistent care without the worry of how they'll get to see a doctor or other medical provider. Residents who have higher level of care needs can have their medical records securely updated, access test results and other key information, and make informed decisions with their healthcare providers from the comfort of their home.

## The Power of Personalization

Senior living communities are a relatively young industry. Traditional nursing homes have given way to personal care homes, life care, retirement, or independent senior communities, and more. Regardless of how they are named, one element is key to their success: personalization.

Before the digital world, housing options were the central component of senior living communities. They still greatly matter, but today how people live, not what they live in, is becoming more influential. Making the move to senior living does not change the fact that residents expect, even demand, the same level of personalization they've grown accustomed to outside the community experience...and much of the personalization is reliant on high-quality Wi-Fi services.



## The Power of Personalization

There are a number of ways to discover what digital personalization means to your residents, including:

- **Network Analytics** that will identify trends and monitor each resident's usage, providing information on how your residents use and interact with their devices.
- **Experiential surveys** that ask the right questions and reveal answers that can help create customized solutions.
- **One-on-one feedback** in the form of regular surveys will help you to design and build systems and services that address a resident's biggest concerns and greatest desires while helping you get to know them on a deeper level.

The most sought-after senior living communities provide personalized experiences for each resident. Taking a cue from the retail sector, CCRCs should solicit personalized data from residents to create relevant and unique experiences that create long-term loyalty and satisfaction.

Whether it's daily meal plans that honor dietary preferences, heating and cooling options, or offering health-related services based on a resident's needs, the goal is to make a resident feel they're living in a place "just like home." Medical Grade Wi-Fi® across all connected campus buildings makes this possible.



## A Strong Medical Grade Wi-Fi® is Crucial to Success

Just as a body's spine provides structural support and balance to enable all that we do as human beings, a robust and reliable Wi-Fi service is the backbone of a successful senior living experience.

Your residents have high expectations and demands when it comes to technology. They want a network that lets them watch on-demand entertainment on numerous devices and is available 24/7 to conduct professional and personal business tasks.

Medical and healthcare management must be easy to access and use. From a facility management perspective, integrated and connected services such as indoor and outdoor video surveillance cameras, staff collaboration tools, and safety features must be a priority.

In other words, facilities and workflows are dependent on a strong network for staff and residents alike. And as the need for technology in senior living communities continues to grow, senior living facilities must be wired appropriately to drive positive residential experience.

Moving into a senior living community is a huge decision that is not taken lightly. One of the overriding concerns for many seniors is whether they will be able to enjoy the same quality of life they did while living in their own homes. Whenever and however possible, providers should strive to offer an experience that helps residents improve their previous quality of life.

## A Strong Medical Grade Wi-Fi® is Crucial to Success

One way to do that is to offer a Wi-Fi connection and overall digital experience that is superior to their previous cable connection. Emphasis should be placed on the benefits of doing so:

- Better data security
- Less interference
- Fewer dropped connections
- Lower costs
- Increased speed and greater bandwidth
- Improved quality consistency

In other words, “just like home” can be improved upon by offering a private and secure network that lets phones, laptops, tablets, smart TVs, Chromecast, wearables, connected speakers and more seamlessly connect to Wi-Fi and effortlessly communicate with each other.



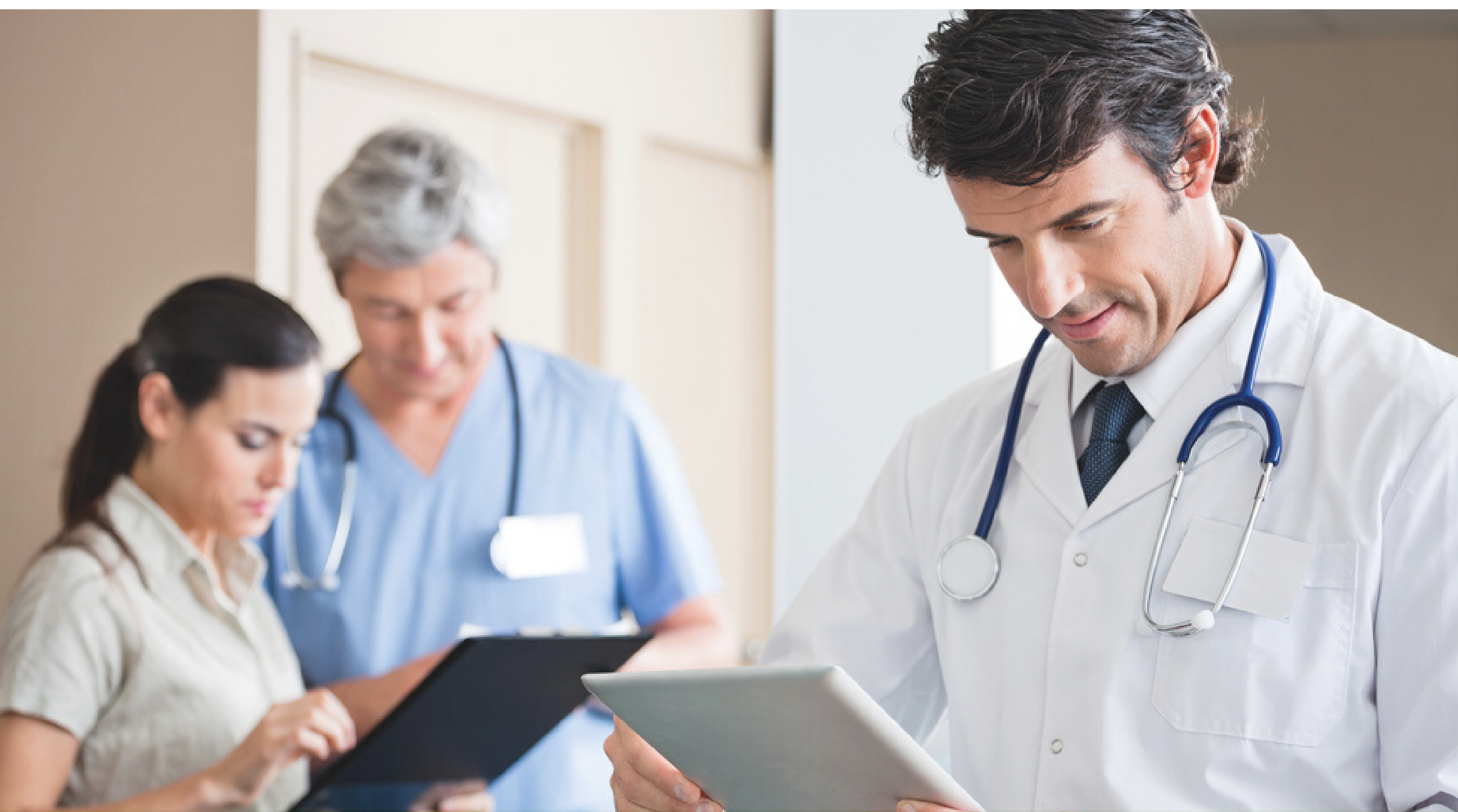


## A Strong Medical Grade Wi-Fi® is Crucial to Success

What does it take to deliver this Solid Wireless Network Backbone? Let's look at the tenets of a Medical Grade Wi-Fi® network platform:

- **Coverage across your campus, including inside all residential units**
- **Signal Strength**
- **Capacity / Speed**
- **Security of data and communications**
- **Redundancy/Reliability**
- **Certainty of Service**
- **Maintain 24/7 monitoring for consistent, uninterrupted service.**
- **Addressing the Needs of Different Customer Sets**


Reference Volume II – What goes into implementing a solid network backbone for senior living.



## Conclusion

Digital technology for residents is all about connection, bringing people together and enabling them to communicate with others. Today's senior living residents are more adept than ever with technology innovations that improve their quality of life. That means senior living providers must seriously research wireless network alternatives and select a Wi-Fi system architecture that ensures a positive experience for their residents.

Creating a 21st century senior living experience that incorporates new technological strategies is what will draw in new residents. Providers who adopt the right technology innovations now will be better prepared to compete for the increasingly tech-savvy residents they'll serve in the coming decades.

A photograph of an older man with a white beard and glasses, wearing a purple shirt, sitting at a table and reading a newspaper. The background is a bright, out-of-focus window with greenery outside.

Stay tuned for Volume 2 of our  
***Robust Wireless Backbone for Senior Living Series***  
to learn all the details of what goes into implementing this system.





## About Us

**HealthSignals** provides your residents, business office, medical staff, and operations personnel with complete white glove service for our Wi-Fi, Cellular Boost, and VoIP solutions across your entire campus.

Our services include Design, Engineering, Implementation and ongoing Management of the technology solutions for our customers.

Our custom designs for your campus enable us to offer a written performance guarantee; we believe that we are the only providers in the industry with this guarantee.