Senior Lifestyle System

Helping Seniors Live Independently at Home

qorvo

all around you
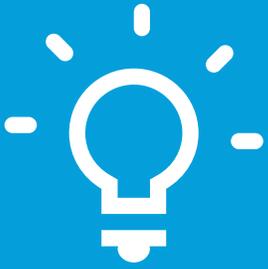
The Senior Lifestyle System, developed by Qorvo® and Sensara®, is designed to help seniors feel safe and live independently at home. The system learns seniors' everyday behavior patterns using unobtrusive wireless sensors located around the home, and detects changes in behavior that may cause concern. It then alerts family members and/or caregivers via messages. The system uniquely uses proven technology that has been successfully tested in residential care facilities for several years, and is now available to service providers, retailers, and smart-home system integrators for home installation. Qorvo's wireless Internet of Things technology makes the system robust, virtually maintenance free, low cost and easy to install.

About the Senior Lifestyle System

Operators
Subscriber management
Billing systems
Customer support

Data Center
Data analytics
Exception management
Alert generation

Cloud
Family Data Management & Analytics System

1

2

Home Gateway

3

Safe & Independent Assisted Living

Smart Home Sensors
Dual-Mode Smart
Home Sentrollers

Qorvo
GP490
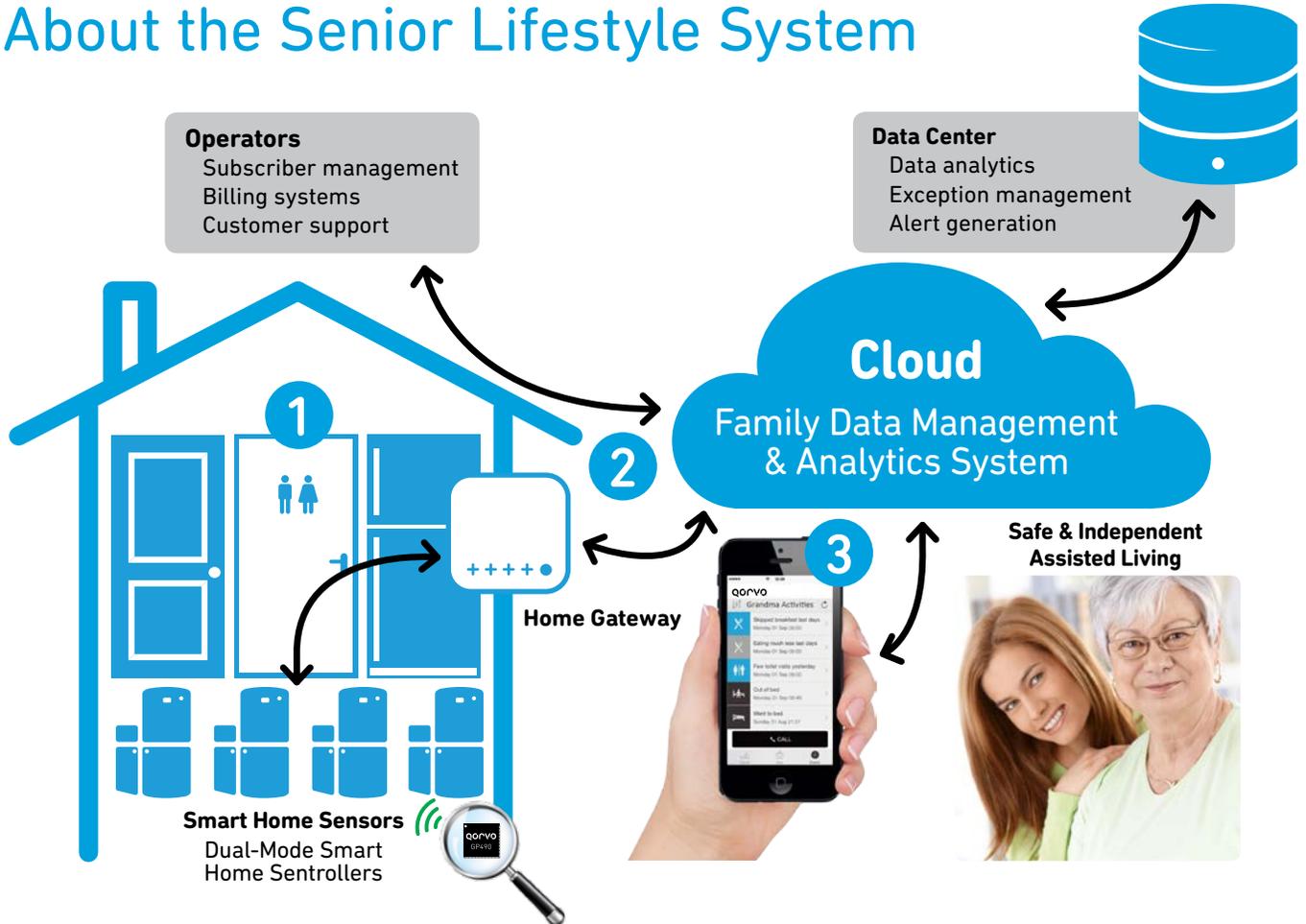
1 The Senior Lifestyle System gathers information using a few small, battery-powered sensors installed in the home. The system uses a combination of motion sensors and open/close sensors; the total number required ranges from five in an apartment to eight in a large house. To ensure the effectiveness of the system, the sensors must be installed in carefully selected locations:

- Hallway
- Bathroom
- Kitchen refrigerator
- Living room
- Front door

More sensors can be added, in locations such as the back door or second bathroom to cover a larger home.

2 The wireless sensors connect automatically to a gateway that is plugged into the standard internet router provided by the user's phone or cable company. The sensor devices are pre-commissioned to the gateway.

3 An intuitive smartphone app guides the installation and setup process. The Senior Lifestyle System is non-intrusive: it doesn't require seniors to wear monitoring technology, it doesn't use cameras, and it respects users' privacy.

How the System Works

After installation, the sensors start to collect data about seniors' behavior. The data is uploaded to a cloud-based analytics engine. Over time, usually in about two weeks, the analytics engine learns to recognize everyday patterns: when someone gets up, how frequently they use the kitchen, when they take naps, and the length of outings such as shopping trips.

Once the system understands these behavioral patterns, it can detect and analyze exceptions. It does so by continually comparing the data it receives from sensors (or the lack of data) with the normal pattern of behavior. This enables the system to identify minor exceptions like skipping a meal, major exceptions like not getting out of bed in the morning, and other anomalies such as a suspiciously long period of inactivity during the afternoon.

The system provides intelligent status updates and alerts via a dashboard in the smartphone app. When it detects an exception, it sends a message to a caregiver, family member or friend.

Designed to help seniors feel safe and live independently at home.

Slim sensors

Suitable for all homes

Data is translated to secure app that identifies and alerts

Resident: better quality of life

Caregiver: peace of mind, less stress
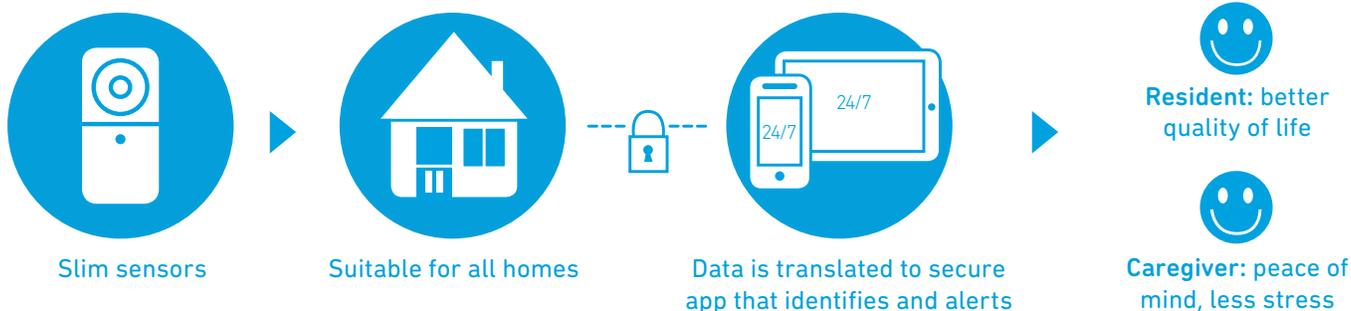
Providing Long-Term and Short-Term Value

The Senior Lifestyle System provides value both in the short term and over the long term. In the short term, it quickly alerts caregivers and loved ones to potential problems. For example, a lack of activity during the day might suggest an illness or a fall, while a longer-than-usual outing might suggest the person is lost. Over the long term, the system can detect and alert family members to gradual changes in behavior that might otherwise be missed, such as walking more slowly or alterations in sleep and eating patterns.
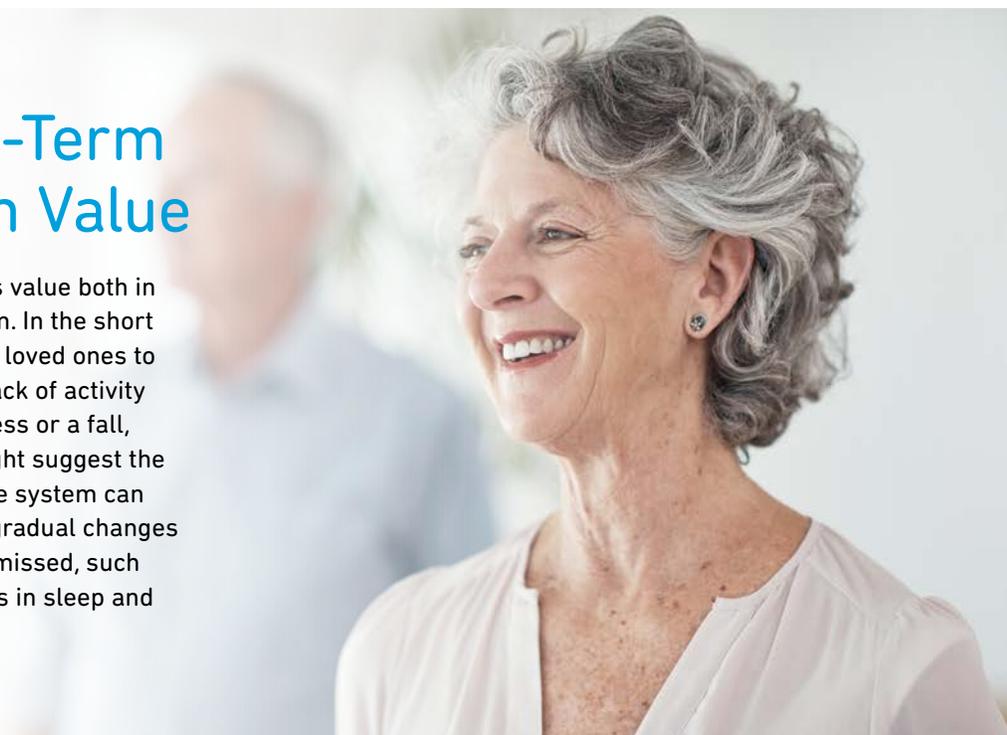
Affordable, Simple and Non-Intrusive

The Senior Lifestyle System is affordable, simple and non-intrusive.

Five sensors and a gateway are all that is needed. The system uses the home's existing Internet connection and users' smartphones.

Affordable
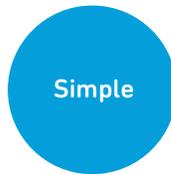
Installation is easy and intuitive. Wireless sensors mean no cabling is required. An app guides the installer through each step; it typically takes less than an hour from opening the box to getting the system up and running.

Simple

Non-Intrusive

sensara
Smart Monitoring Solutions

Once installed, the system requires no attention; it runs 24x7, automatically generating alerts as needed. Users don't need to wear monitoring technology. The system protects privacy, fully encrypting data and requiring password access; no cameras are used.

Virtually Maintenance Free

Sensor batteries last more than seven years; changing the batteries is the only maintenance usually required.

The Senior Lifestyle System is offered as a complete system-level reference solution enabling companies to build end-to-end smart home solutions that complement their existing offerings. The system is designed for companies including:

- Service providers such as telecommunications and cable companies and insurers
- Retailers
- Insurance companies
- System integrators
- Smart home system developers

Qorvo and Sensara:
Leaders in IoT

The Senior Lifestyle System uses leading-edge technology from Qorvo and Sensara. Qorvo provides innovative wireless communications technology; the sensors use Qorvo's ultra-low power ZigBee® networking chips designed for IoT and smart home applications. Sensara is an expert in monitoring solutions that use machine learning, the algorithm used in the Senior Lifestyle System was developed and extensively tested in residential care facilities over several years. Sensara's "model-based reasoning" system starts with a uniform base model for single people living alone; once installed, the system uses the continuous flow of sensor data to adapt the base model so that it represents the real behavior pattern of the person living in the house.

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